

ECO-PRODUCTS DIRECTORY 2005

*For Sustainable
Production & Consumption*



ASIAN PRODUCTIVITY ORGANIZATION

Published by the Asian Productivity Organization
Copyright © 2005

All rights reserved. No part of this work, including the figures, images, tables, and charts, may be reproduced or used in any form or by any means — graphic, electronic, or mechanical, including photocopying, recording, or taping, or information storage and retrieval systems — without the expressed written permission of the Asian Productivity Organization.

ASIAN PRODUCTIVITY ORGANIZATION
Hirakawa-cho Dai-ichi Seimei Bldg. 2F
1-2-10 Hirakawacho, Chiyoda-ku, Tokyo 102-0093, Japan

ISBN: 92-833-7042-2

Contents

Foreword

Introduction

Background of the Eco-products Database 1

Eco-materials, Eco-components, Eco-products, and Eco-services - What are they ? - 7

Categories 9

Development of Eco-materials, Eco-products, and Eco-services in Japan

1. History of Eco-design 11

2. Eco-materials..... 11

3. Eco-components and Eco-products 13

4. Eco-services 16

5. Eco-product exhibitions in Japan..... 17

Related Organizations List 19

Database

1. Eco-materials

i Metals 23

ii Polymers 42

iii Natural Materials..... 46

iv Foams 49

v Ceramics and Glass..... 50

vi Composites 56

vii Others 59

2. Eco-components

i Construction Components 65

ii Electrical and Electronic Components 67

iii Semiconductor Manufacturing Devices..... 67

iv Machine Parts 74

v Automobile Parts..... 77

vi Others 80

3. Eco-products	
i Home electric appliances / Lightings	87
ii Carriers / Automobiles	140
iii OA / IT Equipments.....	168
iv OA / Furniture	190
v Apparel / Fabric Product	196
vi Commodity / Outdoor Goods / Housing Kit.....	199
vii Building and Civil Engineering	226
viii Machines and Equipments.....	242
ix Others	280
4. Eco-services	
i Product-related services	305
ii Reuse and recycling-related services.....	305
iii Management-related services	307
iv Others	311
Company List	315

Foreword

The APO is continuously devoting itself to the improvement of productivity and accelerating the economic development in the Asia and Pacific region through the sharing of experiences and expertise. After the Rio Summit, from the viewpoint of sustainable economic growth, the APO has been emphasizing Green Productivity (GP), so that the region can remain competitive in a business environment that is globalizing at an ever faster rate.

Japan has accumulated vast experience in environmental management and the APO, recognizing this, established in 2003 the GP Advisory Committee (GPAC), comprising more than 40 Japanese companies for advice and support on GP-related activities. The committee, chaired by Mr. Yoichi Morishita, Chairman of Matsushita Electric Industrial Co., Ltd., recommended that the APO focus on promoting environmentally friendly products and services, establishing green supply chains, organizing eco-product exhibitions in Asia, and publishing eco-products databases for wider dissemination of environmentally friendly products and services.

This Eco-products Directory 2005 is an updated version of the Eco-products Directory 2004, which was published in conjunction with the Eco-products International Fair 2004, held in Malaysia. It is our great pleasure to publish this updated version on the occasion of Eco-products International Fair 2005 in Bangkok, Thailand.

As the Asian region takes up the position of a production hub in the global market, we can look forward to expanding green markets in Asia. I hope that this publication will contribute to an appreciation and expansion of the eco-product markets in the region.

Finally, our sincere thanks go to Professor Ryoichi Yamamoto, Chairman of the Subcommittee on the Eco-products Database of the GPAC, and all members of the committee and working group, and the Society of Non-Traditional Technology for their dedicated efforts and leadership in bringing this publication to fruition.

Shigeo Takenaka
Secretary-General

Tokyo
October 2005

Introduction

Achieving a Sustainable Economy through Eco-innovation

It is now clear that if the current world economy continues its present course, environmental destruction and social collapse will be inevitable. The following facts should provide sufficient empirical evidence to support this assertion. Overall, 760 tons of CO₂ are emitted globally every second; about 50% of this accumulates in our atmosphere and has become the major cause of global warming. Other signs and reasons include the reduction of oxygen at a rate of 710 tons per second due to excessive consumption, an increase in the world population by 2.4 persons per second, and the exponential increase in the production of materials such as metal, cement, and plastic. In the industrial civilization of the 20th century, economic development inevitably increased the consumption of resources and energy, as well as the discharge of substances that place a burden on the environment. The increased input and output of such substances has made clear the extent of resource depletion and limited ability of earth's ecosystems to absorb and purify substances causing environmental burdens. In the 21st century, giant nations such as China and India are starting to show rapid economic growth with massive consumption of resources and energy accompanied by massive discharges of environmentally burdening substances, following in the footsteps of the OECD nations. On the other hand, as summarized in a recent report by the Swedish government, attempts to decouple massive consumption of resources and energy and massive discharges of environmentally unfriendly substances from economic growth have failed even in OECD members. This implies that while the world economy grows at a rate of 3% every year, we are heading directly toward the depletion of resources, environmental destruction, and social collapse.

To resolve this problem, we need to promote eco-innovation at every level, including technical, policy, management, and individual lifestyle levels, and disseminate such innovation swiftly into society. The goals are clear: reducing materialism, substituting for hazardous substances, and decarbonization of energy use.

In eco-innovation efforts, it is vital to increase two indicators. One is improving performance per resource input or increasing resource productivity, which expresses the economic added value. The other is eco-efficiency, which indicates improved performance per environmental impact or increased added economic value during the product life cycle. Worldwide, active efforts are being made for eco-innovation. In 2000, the EU issued the End-of-Life Vehicles Directive to ban the use of lead, mercury, hexavalent chromium, and cadmium. In 2001, the EU published a Green Paper on Integrated Product Policy. Since 2003, based on the Restriction of Hazardous Substances Directive or Energy Using Product Directive Proposal, businesses have been required to prepare ecological profiles of their products. In addition, the Registration, Evaluation, and Authorization of Chemicals Regulation Proposal is further reinforcing chemical substance management. In 2001, Japan enacted the Law on Promoting Green Purchasing to mandate eco-friendly procurement by national and local governments. Meanwhile, the United Nations Environment Programme is

striving to spread the cleaner production concept and the Asian Productivity Organization its Green Productivity concept worldwide. All these activities will promote eco-innovation, along with the development of eco-materials, eco-products, and eco-services. Still, no methods for the rapid and explosive spread of eco-innovation to communities have been developed. This document is the second attempt after the *Eco-products Directory 2004* to remedy this lack in Asia. Just as a small ripple can set off a tidal wave, I am convinced that Asia will soon see markedly accelerating trends in Green Productivity, eco-design, and ecoproducts. Human beings are currently facing an environmental struggle of life-or-death proportions: Which will be achieved first, environmental destruction and social collapse or the development and dissemination of eco-innovation? In 2005, the International Green-Purchasing Network (IGPN) was established to promote sustainable production and consumption worldwide. The IGPN should contribute to eco-innovation and its dissemination.

Ryoichi Yamamoto

Professor

Institute of Industrial Science, University of Tokyo

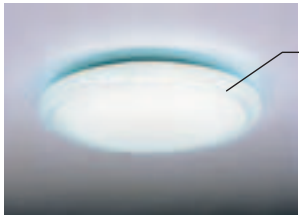
Background of the Eco-products Database

As mentioned in the Foreword, the first eco-products exhibit in Southeast Asia, the Eco-products International Fair 2004, was held in Malaysia from 2 to 4 September 2004. On that occasion, the Green Productivity Advisory Committee (GPAC) (List 1) of the Asian Productivity Organization (APO) compiled a database of major eco-materials, eco-components, and eco-products produced in Japan to introduce environment-friendly products to other Asian countries. To launch the database project, the Subcommittee on the Eco-Products Database (chaired by Professor Ryoichi Yamamoto, see List 2) was set up within the GPAC. The subcommittee discussed the methodology for database development, standards to be applied, companies to be included, division of labor, maintenance of the database after publication, etc. The Society of Non-Traditional Technology organized the Database Working Group (List 3) with the collaboration of the University of Tokyo, National Institute for Materials Science, and Green Purchasing Network. The Database Working Group oversaw the details of the format and publication.

This *Eco-products Directory 2005* is a revised edition following the 2004 format but including newly incorporated information on eco-services and more product information from companies known for their concern for the global environment.

Databook Format

Based on the databook format determined in 2004, the Database Working Group invited both foreign and domestic companies to register their product information. The contents and format of the information listed in the *Eco-products Directory 2005* are as illustrated below.

Eco-products No.053	
Home electric appliances/ Lightings	Circular fluorescent lamp fixtures
High-efficiency flickerless inverter ceiling lamp	
Matsushita Electric Works, (Ayuthaya)Ltd.	
13 Moo 5 Rojana Industrial Park, T.Kanham, A.Uthai, 13210 Thailand	
Tel; 66-3533-0846 Fax; 66-3522-6660	
E-mail;	
URL; http://www.mew.co.jp	
Category: ● A1. Global Warming ● A5. Resource Consumption ● B4. Higher Quality ● B5. Energy Saving ● C5. Product Use, Maintenance and Repair	
[Power-saving] The inverter circuit converts 50Hz alternating current to approx. 50,000Hz high frequency current, which increases the number of collisions (light emissions) between mercury atoms and electrons in the fluorescent lamp, efficiently converting electricity into light. The power consumption has been reduced by approx. 25% from that of the conventional glow-starter magnetic ballast type without changing the brightness. (32W glow-starter type: Approx. 41W, Inverter type: Approx. 30W) [Need no glow starter] Since the inverter type turns on the lamp by electronic control, it does not need a glow starter, which has been required for the conventional type. Replacement work and waste are eliminated. [Quick lighting] This lamp is lit quickly when the switch is turned on. Stress applied on the lamp is less than the conventional type, which starts lighting after flickering, making the lamp life longer. [Flickerless] The lighting frequency is as high as approx. 50,000Hz. This lamp is easier on the eyes than the conventional type, which flickers 100 times per second.	
Products/Model : HAT9502E (32W type)	

(1) Product type

One of the four product types below was selected.

- I. Eco-materials and technical usage
- II. Eco-components and technical usage
- III. Eco-products and technical usage
- IV. Eco-services

(2) Product field

One of the product fields below was selected.

- (I. Eco-materials and technical usage)
 - 1 Metals
 - 2 Polymers
 - 3 Natural materials

- 4 Foam
- 5 Ceramics and glass
- 6 Composites
- 7 Others
- (II. Eco-components and technical usage)
 - 1 Construction components
 - 2 Electrical and electronic components
 - 3 Semiconductor manufacturing devices
 - 4 Machine parts
 - 5 Automobile parts
 - 6 Packaging
 - 7 Others
- (III. Eco-products and technical usage)
 - 1 Home electric appliances/lighting
 - 2 Carriers/automobiles
 - 3 OA/IT equipment
 - 4 OA furniture
 - 5 Apparel/fabric products
 - 6 Commodities, outdoor goods, housing kits
 - 7 Building and civil engineering
 - 8 Machines and equipment
 - 9 Others
- (IV. Eco-services)
 - 1 Product-related services (maintenance, upgrading, repair/renovation, etc.)
 - 2 Reuse and recycling-related services (collection, reuse, etc.)
 - 3 Lease, rental, sharing
 - 4 Outsourcing services (waste disposal, control of hazardous substances, treatment of chemicals, facility management, etc.)
 - 5 Management-related services (consulting, accreditation, analysis, evaluation, etc.)
 - 6 Others (insurance, e-commerce, eco-tourism, hotels, information transfer, etc.)

(3) Product name with product code

Using the Standard Commodity Classification of Japan, the product code is given, and products are listed based on the order of the code. When the corresponding code was not found in the Standard Commodity Classification, the most appropriate code was selected by the Database Working Group, regardless of whether the company included the product trade name. The product category code consists of a numeral and a name, but only the name element of the product code or the product trade name given by the company or the Database Working Group appears in space (6).

(4) Product/service name with features

The heading is in boldface type (65 characters maximum).

(5) Company contact details

The company name and address (required), telephone number, facsimile number, e-mail address, or homepage address (optional).

(6) Category

Five items were selected from the following 18 (A1 to C6).

A: Items related to environmental impact

- A1 Global warming
- A2 Air pollution
- A3 Hazardous substances
- A4 Waste
- A5 Resource consumption

B: Items related to environmental performance indicators

- B1 Recyclability
- B2 Longevity
- B3 Resource saving

- B4 Higher quality
- B5 Energy saving
- B6 Environmental purification
- B7 Use of recycled materials
- C: Items related to life-cycle stage
 - C1 Material extraction
 - C2 Material and component production
 - C3 Design and material selection
 - C4 Product manufacture
 - C5 Product use, maintenance, and repair
 - C6 End-of-life disposal

(7) Product details

The features of the product/service and how it reduces environmental impact are described (1200 characters maximum).

(8) Photograph

One photograph per product is shown.

(9) Explanation of photograph

A brief explanation of the product photograph with the model number is given (45 characters maximum).

The number of environment-friendly products/services contained in the *Eco-products Directory 2005* totals 568.

[List 1]

Green Productivity Advisory Committee

(As of end of June 2005)

Members List

Chairperson

Mr. Yoichi Morishita
Chairman of the Board
Matsushita Electric Industrial Co., Ltd.

Vice-Chairpersons

Mr. Toshio Yonezawa
Representative Director and President
Nippon Steel & Sumikin Stainless Steel Corporation

Mr. Masatoshi Yoda
Corporate Adviser (Former President)
Ebara Corporation

Prof. Ryoichi Yamamoto
Professor, Institute of Industrial Science & International Research
Center for Sustainable Materials
University of Tokyo

Members

Mr. Seiichi Ueyama
General Manager, Corporate Citizenship Department
Aeon Co., Ltd.

Mr. Masayuki Hirata
Corporate Councilor, Environment Department
Ajinomoto Co. Inc.

Mr. Eisuke Kumano
President
Amita Corporation

Mr. Shigeto Yamashita
Producer, Department of Environment Management
Asahi Breweries, Ltd.

Mr. Masaaki Hikida
Director, Corporate Planning Division
Biznet Corporation

Mr. Kiyoto Furuta
Deputy Senior General Manager, Environment Management and
Engineering Center
Canon Inc.

Mr. Kenzo Shibutani
Senior Manager, Global Environmental Department
Daikin Industries Ltd.

Mr. Tsutomu Ishibashi
General Manager, Corporate Environmental Management Office
Ebara Corporation

Mr. Hiroyuki Akiyama
Group Manager, Corporate Social Responsibility Dept
Fuji Xerox Co., Ltd.

Dr. Nobuo Kamehara
President
Fujitsu Analysis Laboratory Ltd.

Mr. Yoichi Takahashi
Divisional Manager, Corporate Environmental Policy Division
Hitachi, Ltd.

Mr. Masami Shinohara
Vice President, Global Environment Division
Japan Tobacco Inc.

Mr. Takuya Kadowaki
Manager, Business Project Planning and Marketing Department
JFE Engineering Co., Ltd.

Mr. Toru Nakagawa
General Manager, Environmental Protection & Safety Department
Kaneka Corporation

Mr. Tadashi Matsui
Vice President, Headquarter of Environment and Safety
Kao Corporation

To be designated
Mr. Kazuya Kojitani
Department Manager, Group Management Headquarters
Kokuyo Business Services Co., Ltd.

Dr. Narito Shibaike
Councilor, Environmental Planning Group, Corporate Environmental
Affairs Division
Matsushita Electric Industrial Co., Ltd.

Mr. Shinji Hirano
Senior Engineer, Environmental Preservation Division
Meidensha Corporation

Mr. Yoshitaka Moriide	Manager, Marketing Department Ministop Co., Ltd.
Mr. Takashi Yoshida	General Manager, Corporate Environmental Sustainability Group Mitsubishi Electric Corporation
Mr. Chikura Kinoshita	Executive Officer, General Manager, Environment Management Division Mitsubishi Materials Corporation
Mr. Koji Yamaguchi	Vice President Executive Expert (Environmental Affairs) NEC Corporation
Mr. Teruo Furuyama	Senior Manager, Technical Group, Environmental Affairs Division Nippon Steel Corporation
Mr. Tetsuo Hasegawa	General Manager, Environmental and Safety Engineering Nissan Motor Co., Ltd.
Mr. Junji Ohsawa	General Manager, Environmental Department Oji Paper Co., Ltd.
Mr. Susumu Nakamaru	Corporate Councilor, Corporate Environment Division Ricoh Company, Ltd.
Mr. Misao Muraoka	Senior Manager, Environment Team, Corporate Environment Center Corporate Innovation Central Unit Innovation Group Sanyo Electric Co., Ltd.
Mr. Yoshihiro Ono	General Manager, CSR & Global Environment Policy Department, CSR & Environment Affairs Division Seiko Epson Corporation
Dr. Hiroshi Morimoto	Group Deputy General Manager, Environmental Protection Group Sharp Corporation
Mr. Junzo Ohse	Senior Manager, Environment and Occupational Safety Management Department Shimadzu Corporation
Mr. Ryo Sasaki	President Shinagawa Chemical Ind. Co., Ltd.
Ms. Mieko Kuwayama	General Manager, CSR Department Shiseido Co., Ltd.
Mr. Hidemi Tomita	Vice President, Corporate Social & Environmental Affairs/Compliance Office Sony Corporation
Mr. Hiroyuki Tada	General Manager, Management Quality Department Sony EMCS Corporation
Mr. Yoshihisa Mizukami	Executive General Manager, Environmental Affairs Department Suntory Limited
Mr. Naoki Arai	Teijin Group Corporate Officer, Assistant Chief Marketing Officer Teijin Limited
Mr. Kazunari Take	Manager, Society/Environment, Corporate Affairs The Seiyu Ltd.
Mr. Hiroshi Inanaga	Chief Executive Officer Tohatsu Evaluation and Certification Organization Co., Ltd.
Mr. Toshinobu Sato	General Manager, Environment Department Tokyo Electric Power Company
Mr. Yasunori Takakuwa	General Manager Environmental Affairs Department Tokyo Gas Co., Ltd.
Mr. Masataka Iwadate	Section Chief, Environmental Affairs, Environment Department Tokyu Corporation
Mr. Susumu Ota	General Manager, Corporate Planning Department Toray Industries, Inc.
Mr. Kiyoshi Sanehira	Chief Specialist, Corporate Environment Management Division Toshiba Corporation
Mr. Tetsushi Ito	Manager, Environmental Affairs Division Toyota Motor Corporation
Mr. Keiichi Matsushima	General Manager, Environmental Administration Division Victor Company of Japan Limited

[List 2]

Subcommittee on the Eco-products Database

Members List

Prof. Ryoichi Yamamoto	Professor, Institute of Industrial, Science & International Research Center for Sustainable Materials University of Tokyo
Mr. Shigeto Yamashita	Producer, Department of Environment Management Asahi Breweries, Ltd.
Mr. Kiyoto Furuta	Deputy Senior General Manager, Environment Management and Engineering Center Canon Inc.
Mr. Tadashi Matsui	Vice President, Headquater of Environment and Safety Kao Corporation
Mr. Kazuya Kojitani	Department Manager, Group Management Headquarters Kokuyo Business Services Co., Ltd.
Dr. Narito Shibaike	Councilor, Environmental Planning Group Corporate Environmental Affairs Division Matsushita Electric Industrial Co., Ltd.
Mr. Takashi Yoshida	General Manager, Corporate Environmental Sustainability Group Mitsubishi Electric Corporation
Mr. Koji Yamaguchi	Vice President Executive Expert (Environmental Affairs) NEC Corporation
Mr. Teruo Furuyama	Senior Manager, Technical Group Environmental Affairs Division Nippon Steel Corporation
Mr. Tetsuo Hasegawa	General Manager, Environmental and Safety Engineering Department Nissan Motor Co., Ltd.
Mr. Junji Ohsawa	General Manager Environmental Department Oji Paper Co., Ltd.
Mr. Susumu Nakamaru	Corporate Councilor, Corporate Environment Division Ricoh Company, Ltd.
Mr. Hiroshi Morimoto	Deputy Director, Environmental Protection Group Sharp Corporation
Mr. Hiroshi Inanaga	Chief, Executive Officer Tohatsu Evaluation and Certification Organization Co., Ltd.
Mr. Kiyoshi Sanehira	Chief Specialist, Corporate Environment Management Division Toshiba Corporation

[List 3]

Database Working Group

Members List

Hiroyuki Sato	Green Purchasing Network (GPN)
Gakuji Fukatsu	Green Purchasing Network (GPN)
Katsutoshi Yamada	Ecomaterials Center, National Institute for Materials Science
Hong Nguyen Xuan	Institute of Industrial Science, University of Tokyo
Ying Wang	Institute of Industrial Science, University of Tokyo
Kohei Morimoto	Institute of Industrial Science, University of Tokyo
Kenichi Nakajima	Graduate School of Environmental Studies, Tohoku University
Shoko Tsuda	The Society of Non-Traditional Technology
Wakako Suetsugu	The Society of Non-Traditional Technology

Eco-materials, Eco-components, Eco-products, and Eco-services

— What are they ? —

The prefix “eco”, meaning habitat or environment, comes from “ecology”, the branch of science concerned with the interrelationships between organisms and their environments. Eco has long been used in such compound forms as ecosystem and ecocide. More recently, this prefix has been used in combination with “materials”, “products”, or “services” to indicate that they take into account environmental impacts through the entire life cycle.

1. What are eco-materials?

The term “eco-materials” was first introduced in Japan by Professor Ryoichi Yamamoto and colleagues at the University of Tokyo in 1991 as a proactive measure in response to the sustainable development movement. Eco-materials are defined as those that can improve the environment throughout their life cycle, with accountable performance. Eco-materials encompass one or more of the following six factors:

1. avoiding and/or reducing the use of nonrenewable or scarce resources;
2. enhancing the material closed loop by recycling and reusing waste;
3. increasing resource efficiency including that of energy and materials;
4. using more durable materials with fewer maintenance requirements;
5. promoting the use of renewable resources and energy; and
6. minimizing adverse impacts on biodiversity and eco-systems.

In other words, eco-materials form a key concept in material science and technology to minimize environmental impacts, enhance the recyclability of materials, and increase energy and material efficiency. Eco-materials also contribute to the development of eco-products and promote the green procurement movement in Japan and elsewhere.

Eco-materials have relatively better ecological, economic, and efficiency features and are currently classified into groups based on similar properties, similar processing routes, and similar applications. Therefore, this data book classifies them into seven categories: metals, polymers, natural materials, foams, ceramics and glass, composites, and others.

2. What are eco-components?

The term “eco-components” in this publication refers to those used as components or parts of eco-products. Eco-components can be essential, functioning parts of a subsystem or equipment, or a combination of parts, assemblies, attachments, or accessories of an eco-product. They are sometimes called semi-products and used as inputs in eco-product manufacturing.

Similar to eco-materials, eco-components are produced taking into account their environmental impacts through the entire life cycle. As a result, the six factors involved in eco-materials can also be applied to eco-components. Eco-design or life-cycle design concepts, methodologies, and tools are used in the production of eco-components. In addition, eco-components can contribute to the manufacture of eco-products through eco-design for disassembly, design for upgradeability, and design for waste prevention.

While eco-components are defined as components or parts of eco-products, they are naturally related to the industrial sectors making them. Based on the major product categories, eco-components can be classified into seven groups: construction components, electrical and electronic components, semiconductor manufacturing devices, machine parts, automobile parts, packaging, and others.

3. What are eco-products?

Eco-products are designed according to eco-design concepts and principles to have environmentally friendly features. Life cycle concepts and engineering play a very important role during the development phase of eco-products. Eco-products are made from improved raw materials, including recycled or biomass materials. In addition, during the production process, minimal energy and water resources are used with less waste and fewer pollutants. In the consumption phase, the use of eco-products can lead to energy and water savings, minimal emissions, and reduced waste and subsequent need for waste treatment. Eco-products are also designed to ensure the ability to recycle and recover materials and components.

In Japan, eco-products generally bear eco-labels, which are type I, type II, or type III according to ISO14020 standards. In addition, those products listed in the database of the Green Purchasing Network are also considered to be eco-products.

In this data book, eco-products are classified into nine groups following the conventional industrial product categories. Among commercial products on the Japanese market, these are home electric applications/lighting, carriers/automobiles, OA/IT equipment, office furniture, apparel/fabric products, commodity/outdoor goods/housing kits, building and civil engineering equipment, machines and equipment, and some other eco-products not relevant to the above eight groups of eco-products.

4. What are Eco-services?

Eco-services are defined as those designed to shift traditional business from designing and selling products as physical objects into designing and selling product or service functions to meet the needs of customers. This new business is based on the life-cycle concept to ensure consideration of environmental issues. The use of eco-services can enhance the eco-efficiency of customer activities. A number of similar concepts have been proposed, such as Product Service Systems, Sustainable Service Systems, and eco-efficient services in Europe, and “servicizing” in the USA. Although these concepts have their own distinguishing features, the main purpose of shifting traditional business to new, sustainable business in eco-services is common to all.

While the economy is shifting from goods production toward service provision, eco-products can be transformed into services to improve resource productivity and eco-efficiency. Eco-services have great potential to bring about huge changes in production and consumption patterns that will accelerate the shift toward a more sustainable society.

Eco-services are generally classified based on actual business scenarios. The great diversity of eco-services has led to varying classifications, and no single standard yet exists. Based on examples in the Japanese market, eco-services are classified into six categories:

1. product-related services, including maintenance, upgrading, repair, reform, etc.;
2. reuse and recycling-related services;
3. user services, such as consumer leasing, rental, or product sharing;
4. outsourcing services, such as those provided by some professional companies in the form of pay-per-service waste treatment, hazard control, chemical handling, or facility management;
5. management-related services, such as consulting, certification, diagnosis, assessment; and
6. other services outside the above categories.

These six categories may cover most eco-services, from traditional industrial services to new services and businesses.

In this data book, we modified the classification of eco-services into four groups: 1) product-related services, 2) reuse and recycling-related services, 3) management-related services, and 4) others.

Classification of Categories

Recently, many eco-products have been developed in Japan. Eco-labelling (types I to III) has been introduced to standardize or evaluate these products. The classification of available eco-products into categories and the compilation of a databook on such products should aid both consumers and companies in using and developing eco-products easily and appropriately. Based on this objective, information collected on eco-products was categorized from three perspectives: A) environmental load; B) environmental performance index; and C) life cycle stage. These categories are considered useful for investigating the effects that eco-products have on which environmental loads, with what level of eco-performance, and at which stage.

For category A, products were categorized according to the environmental impact reduction with the use of eco-products. Among various environmental problems currently observed, products were grouped according to their impact on the following five: global warming as a global environmental problem; air pollution as a local environmental problem; the issue of hazardous substances; management of waste due to landfill site limitations; and the consumption of resources due to Japan's dependence on other countries for most. Details of the classification are as follows:

- A1. **Global warming** : Products effective for reducing greenhouse gases such as CO₂ which cause global warming. The category includes products with energy-saving effects and those that contribute to decreasing deforestation, in addition to products that directly reduce the discharge of greenhouse gases.
- A2. **Air pollution** : Products that reduce the discharge of air pollutants such as nitrogen oxides, sulfur oxides, and suspended particulate matter, discharge of which is restricted by the Air Pollution Control Law and other governmental regulations. The category also includes products with properties promoting air cleaning.
- A3. **Hazardous substances** : Products with actions to reduce the discharge of substances affecting the human body and ecology such as substances subject to the Law Concerning Reporting, etc. of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in Their Management (PRTR Law), and material safety data sheet. The category includes products that use hazardous substances in lesser amounts or which use no hazardous substances at all, as well as certain products composed of hazardous substances which can be reused/recycled.
- A4. **Waste** : Products that reduce the final disposal amount. They include those with reduced volume or weight and those supported by reuse/recycling systems.
- A5. **Resource consumption** : Products that reduce the consumption of resources such as minerals, wood, water, etc. They include those using few resources in the product itself or in the manufacturing process and those that can be reused/recycled efficiently.

In category B, products were categorized based on the environmental performance required for resolving the environmental problems in "A" above. The following seven environmental performance indices were selected:

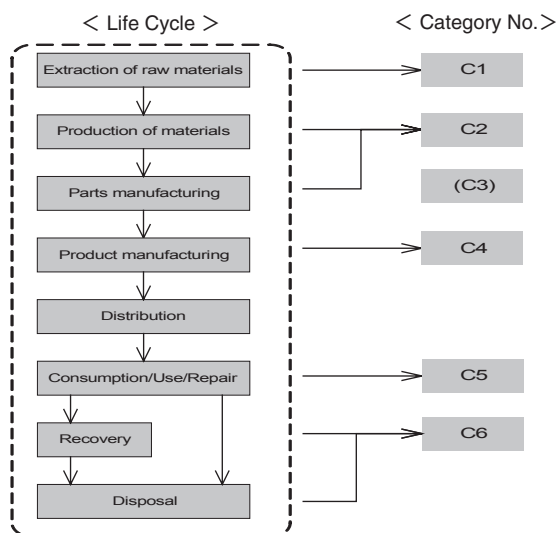
- B1. **Recyclability** : Index of the ease of recycling. The category includes products that are easy to disassemble and classify for reuse and recycling and those designed so that recycling can be carried out efficiently.
- B2. **Longevity** : Index of longer life for conventional products. The category includes products designed for longer-term use and those of which the use can be extended by repair.
- B3. **Resource saving** : Index of resource saving for conventional products. The category includes products designed to save resources by reducing product weight or enhancing product design efficiency.
- B4. **Higher quality** : Index of enhanced quality for conventional products. The category includes those effective for improving the environment due to enhanced quality and services (environmental efficiency) achieved for the same environmental loads.
- B5. **Energy saving** : Index of energy saving for conventional products. The category includes those made

under an efficient process design, those that have been made lightweight, or those designed to reduce energy consumption during use.

- B6. **Environmental purification** : Index of products with the function of cleaning the environment. The use of these products should detoxify hazardous substances or waste in the environment and recycling systems.
- B7. **Usage of recycled materials** : Index of the enhancement of the rate of use of recycled resources for conventional products. The category includes products that use recycled resources in the products themselves or during the manufacturing process.

Furthermore, as it is preferable that measures for environmental problems be implemented in the entire product life cycle, for category C products were distinguished by life cycle stage as measured using the life cycle assessment method. The following six life cycle stages were selected:

- C1. **Materials extraction** : Stage for mining resources used for products in mine sites. The category includes facilities for reducing environmental impact in this stage.
- C2. **Materials and components production** : Manufacturing stage of half-finished products in general, such as primary products and parts serving as the material for products. Products in this category include half-finished products and products designed to reduce the environmental load in the manufacturing process.
- C3. **Design and materials selection** : Stage in which parts and materials are selected and products are designed. The category includes those made of parts and materials that are eco-friendly or designed taking the environment into consideration, and eco-products based on design.
- C4. **Products manufacture** : Stage in which products are manufactured using parts and materials. The category includes products reducing the environmental load during the manufacturing process.
- C5. **Product use, Maintenance and Repair** : Stage in which manufactured products are used by consumers, including prolonged use due to repair. The category includes products with a reduced environmental load during use such as energy-saving products, products cleaning the environment during use, products of which the life can be prolonged by repair, and long-life products.
- C6. **End-of-life** : Stage in which products are disposed of/recycled after use. The category includes products with low final disposal amounts, those easy to break down, those with high reusability/recyclability, and products with recycling systems.



Figuer Conceptual outline of a product's life cycle stages.

Development of Eco-materials, Eco-products, and Eco-services in Japan

1. HISTORY OF ECO-DESIGN

Eco-design has a long history dating from the 1960s. The concept, methodologies, and tools of eco-design can be divided into product-oriented and system-oriented approaches. The publication of *Silent Spring* by Rachel Carson in 1962 initiated a new movement for environmental protection and sustainable development. Since then, various organizations and governments have introduced principles, methodologies, programs, laws, and regulations related to eco-design and sustainable development. The first life cycle assessment (LCA) project was conducted by Coca Cola in the USA in 1969. The declaration of the United Nations Conference on the Human Environment in 1972 also marked a milestone in eco-design history. In the 1970s, Ruedi Mueller-Wenk, a Swiss engineer, introduced the concept of “eco-balance” or “ecological accounting” to address the impact of products, companies, and others on the environment. Later in that decade, the three main concepts of eco-design, Resource Productivity, The Natural Step, and Industrial Ecology were introduced in Europe and North America.

The last decade of the 20th century saw a blossoming in the development of eco-design concepts, methodologies, and tools. In 1991, the eco-material concept was introduced to Japan by Professor Ryoichi Yamamoto and his colleagues as a proactive measure for eco-design and sustainable development in the field of material science and engineering. At the same time, a green chemistry program was started in the USA. The World Business Council for Sustainable Development (WBCSD) introduced the eco-efficiency concept in 1992. One year later, Ernst Ulrich von Weizsacker introduced the factor 4 concept, and then the factor 10 concept was introduced by his colleague Friedrich Schmidt-Bleek in Europe to enhance resource productivity while reducing the impact on the environment by a factor of 4 or 10, respectively, to achieve the goal of sustainable development. These two concepts have been widely used in Japan as indicators of sustainable development or of the benefits of eco-products. Following the introduction of the pollution prevention concept in the USA, several other concepts such as Cleaner Production, Green Productivity, Zero Emissions, and Inverse Manufacturing were initiated in Europe and Asia in 1994. In the period from 1996 to 1999, various system-oriented concepts were proposed, including the ISO14000 series, functional economy, Product-Service System, Servicizing, Integrated Product Policy, Sustainable Service System, and triple bottom line. At the same time, the United Nations Environment Programme (UNEP), in collaboration with scientists in the Netherlands, published the first eco-design manual under a project called PROMISE. Since then, the trend in concept development has moved toward holistic management systems of products and services.

At the beginning of the 21st century, European and OECD countries introduced new systems and tools to cope with the growing demand for the appropriate management of chemicals. The first system was a globally harmonized system (GHS) for the classification and labeling of chemicals introduced in 2001. One year thereafter, the OECD countries organized a workshop in Tokyo, Japan, to develop a plan for a more holistic approach to chemical management, referred to as the Chemical Product Policies (CPP). In 2003, European scientists proposed the establishment of a new EU directive setting eco-design requirements for energy-using products (EuP). This proposed directive was enacted by the end of 2004, and it will be mandatory for manufacturers to address the life-cycle environmental performance of electrical and electronic products.

Eco-design development trends are shifting from products to services and from the old industrial economy to the new service economy. The importance of system-oriented approaches and concepts has increasingly been emphasized in the later phases of development.

2. ECO-MATERIALS

2.1 Development of basic concepts

In the beginning, the eco-material concept focused on the development of materials that could contribute to environmental conservation and protection. Environmental issues and functional properties of materials were considered, including structural materials used in construction or automobile manufacture and special functional materials such as semiconductors or solar cells.

Recently, the Eco-materials Forum in Japan has started an eco-materials guidelines project to develop a standardized concept of and criteria for the evaluation of eco-materials. The conceptual definition

of eco-materials in this project is: “Eco-materials are those that can contribute to reduction of environmental burden throughout their life cycles” (Shinohara, 2004). In other words, any material can be an eco-material as long as it satisfies prerequisites (I in Figure 1) and the necessary conditions for eco-materials (II and/or III in Figure 1). The prerequisites for eco-materials include the optimization of physical and/or chemical properties and superior technical performance. The necessary conditions are: significant environmental improvement compared with conventional materials (II); and no tradeoff of the environmental load throughout the whole life cycle, and if there is a tradeoff, all life cycle environmental data must be available to verify the improvement of environmental performance (III).

It should be noted that the entire life cycle impacts of eco-materials must be considered and improved. Condition II includes six vectors: 1) green resource profile; 2) minimal environmental impact during the material manufacturing process; 3) high productivity in use; 4) minimal use of hazardous substances; 5) high recyclability; and 6) high environmental purification efficiency. It is not necessary for an eco-material to include all six vectors, but it must include at least one.

In addition to the development of methodologies and tools, several books on eco-materials have been published in Japanese to help practitioners, students, and other interested persons apply the concept, methodologies, and tools. The latest, an eco-material selection guideline, was published in June 2004. Along with the publications, an eco-material international conference has been held every two years in Japan, China, and the USA. These conferences provide a good opportunity for materials researchers and industrial engineers to exchange ideas related to eco-materials. In 2003, the fourth eco-material conference was held in Yokohama, Japan, which attracted more than 150 presentations, including 26 invited lectures. In July 2005, the fifth international conference on eco-materials was organized in conjunction with the 9th International Conference on Advanced Materials held by the International Union of Materials Research Society (IUMRS) in Singapore. This international conference attracted more than 120 delegates from 16 countries, and about 150 research papers were presented.

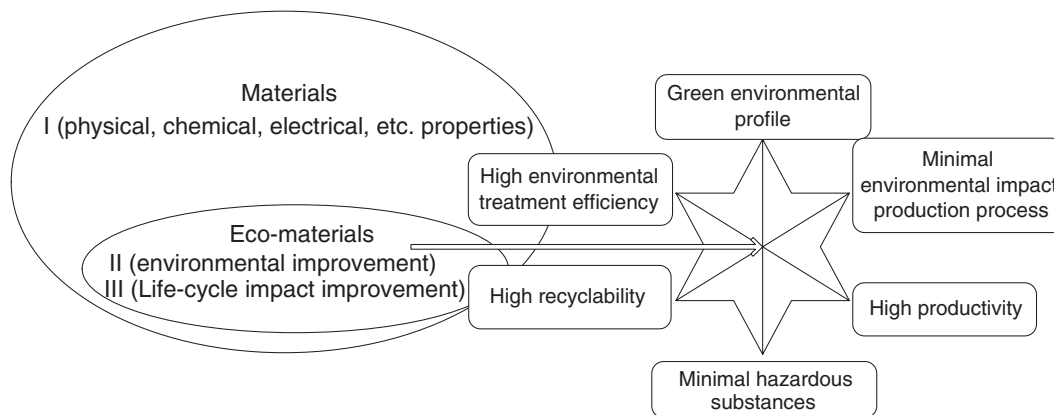


Figure 1. Conceptual model of eco-materials within the context of material sciences

A new concept of eco-material was also proposed during the conference, that of the “material-lease system.” This new concept is meant to promote the development of eco-services focusing on business-to-business activities. The material-lease system is defined as a “system to improve the resource productivity by sound material circulation” (Halada et al., 2005).

2.2 Current industrial practices

A recent study by Nguyen et al. (2004) reported a list of eco-materials based on environmental reports or responsible care reports in 2002 of more than 40 Japanese companies and eco-materials reported by companies in several industrial sectors including metals, cement, chemicals, and others. Altogether, 441 different eco-materials were identified and further investigated to determine their eco-material classification (359 eco-materials from the 2002 study and 82 eco-materials from a 2005 study).

Among industrial sectors, the metals industries (including ferrous and nonferrous metals) were one of the leading industries in Japan in the field of eco-material development. Figure 2 shows that this industry produced more than half (52%) of all eco-materials. The second leading industry was the ceramics and

glass sector, which accounted for 13%. Polymers, composites, and natural material industries followed as the third and fourth (accounting for 10%, 7%, and 7%, respectively).

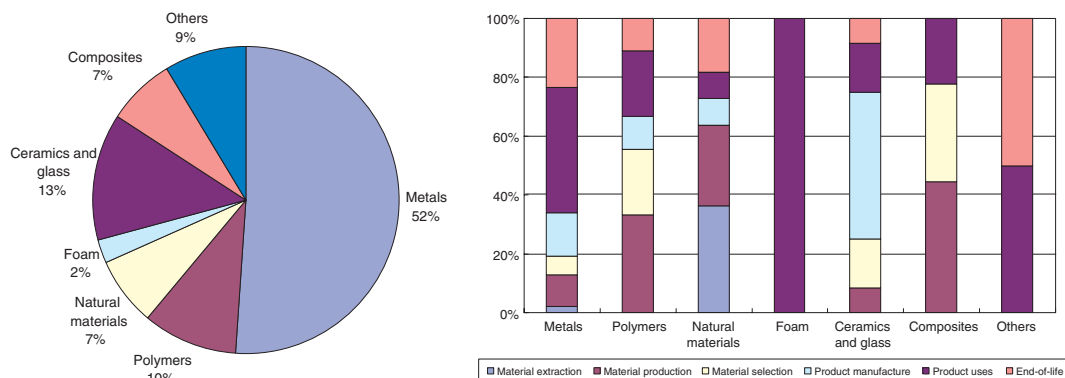


Figure 2. Eco-materials used in Japanese industries

These commercialized eco-materials were then qualitatively classified using the LCA concept in conjunction with the six stages of material extraction, material production, material selection and design, product manufacturing, consumption, and end-of-life disposal. As illustrated in Figure 2, in metals most eco-materials were developed with the emphasis on the consumption and end-of-life stages (42.6% and 23.4%, respectively). In the polymer and composite sectors, production of materials is the main consideration stage for overall environmental improvement (33.3% and 44.4%, respectively). Unlike the metal, polymer, and composite sectors, the ceramic and glass sectors tend to pay more attention to the product manufacture stage (accounting for 50%). The natural material sector focuses on material extraction and production, as well as end-of-life stages (accounting for 36.4%, 27.3%, and 18.2%, respectively). This is because the use of natural materials can reduce, or even eliminate, the use of nonrenewable resources. In addition, at the end-of-life stage, the disposal of natural materials appears easier than that of metallic materials and wastes.

In the metal industry, there have been three main focuses in eco-material development. First of all, hazardous substance-free steel such as lead-free and chromate-free steel during production received the greatest research and manufacturing attention. Second, in addition to the hazardous substance-free issue, new advanced technologies in the steel-making process enabled easier production of steel by eliminating cleaning processes or allowing the use of easily formable processes. Third, the iron and steel industry also focused on the consumption stage by producing high-efficiency steel such as high tensile-strength steel, weather-resistant steel, and higher energy-efficiency steel used in automobiles.

The second notable industry in the field of eco-material development was the polymer industry. Hazardous substance-free materials such as halogen-free flame-retardant or VOC-free plastics were the main eco-materials in the plastics industry. The industry also focused on the development of biomass-based and biodegradable plastics as eco-materials.

In general, the development of eco-materials in Japan has taken advantage of advanced and newly developed technologies. Ultralight steel, formable steel, recyclable plastics (Toyota super olefin plastics), halogen-free flame-retardant polymers, and eco-cement are typical examples of eco-materials based on advanced technology. Furthermore, the results of a study by Yamada et al. (2003) suggested that the development of eco-materials in Japan was still in the early stage. R&D activities on eco-materials should be diversified and better balanced between all sustainable concerns. The introduction of eco-material guidelines is essential for this.

3. ECO-COMPONENTS AND ECO-PRODUCTS

3.1 Development of basic concepts

Similar to eco-materials, the prefix “eco” in eco-components and eco-products originally denoted that they were ecologically sound. It also reflected economic issues in later phases of development. The concept of eco-components and eco-products in Japan began to develop in the 1980s, along with

the development of the eco-design concept, methodologies, and tools. Several definitions have been introduced by various organizations and industries under three different auspices: the Green Purchasing Network (GPN), type I and type II eco-labeling, and eco-product exhibitions. In other words, there are numerous criteria for eco-component and eco-product evaluation. Almost every large Japanese company such as Sony, Canon, Panasonic, NEC, and Toyota has its own criteria. In addition, each product category may also have different criteria. For example, NEC has 24 eco-product standards to evaluate its products (NEC, 2004). However, they all share such common aspects as resource and energy saving, recyclability, use of recycled materials, longevity, and ability to contribute to environmental purification processes. These common aspects have been described in eco-design guidelines or in ISO standards on eco-labeling (ISO14020 to ISO14025).

The first set of eco-products was introduced in 1989 when the Eco-Mark Program was established (Japan Environment Association, 2003). The Eco-Mark Program is classified as type I eco-labeling according to ISO standards. The number of certified products reached more than 5600 in 2003, up from 265 in 1989. In addition, Eco-Mark product categories also increased from 14 in 1989 to 59 in 2003. Two basic requirements for Eco-Mark products are 1) the minimization of environmental impact during the manufacturing, use, and disposal phases compared with similar products; and 2) the reduction of environmental impact by any means. Furthermore, the Eco-Mark criteria for eco-products depend heavily on the life cycle concept. The product life stage covers from resource extraction to manufacturing, distribution, use and consumption, disposal, and recycling.

A few years after the introduction of the Eco-Mark Program, several companies introduced their own criteria for eco-products. These are classified as type II eco-labeling. In the beginning of concept development, most criteria for eco-products focused on one or two environmental aspects including energy saving and/or compliance with laws and regulations. In the later phase, environmental and economic aspects have increasingly been included, especially since the start of the Factor X Program in Japan with the participation of more than 50 companies. The criteria for type II eco-labeling vary by company. Companies participating in the Factor X Program such as Mitsubishi, Matsushita Electric, Hitachi, Toshiba, Canon, and Fujitsu have developed their own calculation methods for type II eco-labels. Other companies such as NEC have also developed standards to evaluate their eco-components and eco-products. The details vary and depend on the focus of the company. However, the three main concerns of global warming, resource efficiency, and energy efficiency are found in most criteria sets.

In addition to eco-labeling programs, the GPN and the enactment of the Green Procurement Law in Japan have played a major role in eco-product development (Green Purchasing Network, 2004). In 1994, the Shiga prefectural government was the first local government in Japan to introduce comprehensive guidelines on green purchasing. Two years later, the GPN was established to promote the green purchasing concept and activities. In 2000, the Japanese government enacted the Green Procurement Law. Under the law, all state institutions must follow its stipulations in the purchase of 14 product categories such as copy and printing paper, stationery and office supplies, office furniture, electronic appliances, and others. The criteria for each product category were mainly based on those of the Eco-Mark Program and GPN criteria or on existing governmental targets.

3.2 Current industrial practices

3.2.1 Eco-components

Another study on the current status of eco-components and eco-products in Japan was conducted during the development of this data book. More than 470 eco-components and eco-products were investigated to determine current trends in their development. This study covered more than 300 companies in Japan including electronics, construction, automobile, and machinery manufacturers. The distribution of eco-components and eco-products in different industrial sectors is shown in Figure 3. Electrical and electronic industries contributed the largest number of eco-components (33% of the total). Packaging components, automobile parts, and construction components were second (18%), third (16%), and fourth (15%), respectively. Machinery parts closely followed in fifth place (13%).

In the electrical and electronics industries, hazardous substance-free components are one of the most crucial concerns as they are closely monitored by the authorities. This concern is related to the three life cycle stages of manufacturing, product use, and end of life (Figure 4). These industries have also focused on global warming because energy consumption during the production and use of eco-components is closely related to their industries.

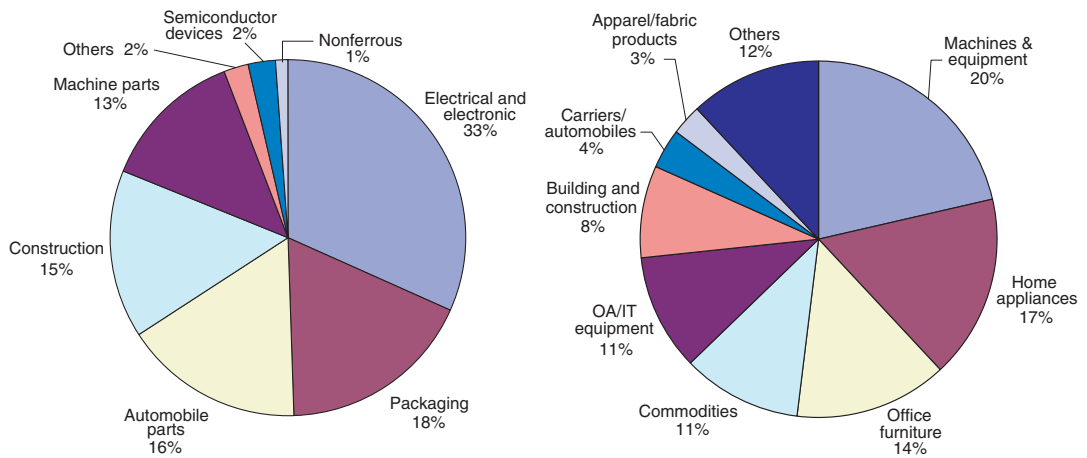


Figure 3. Eco-components and eco-products in different industrial sectors

Similarly, the automobile and machinery industries also conducted R&D on eco-components to reduce energy consumption during the product-use phase. This will help reduce the impact of global warming.

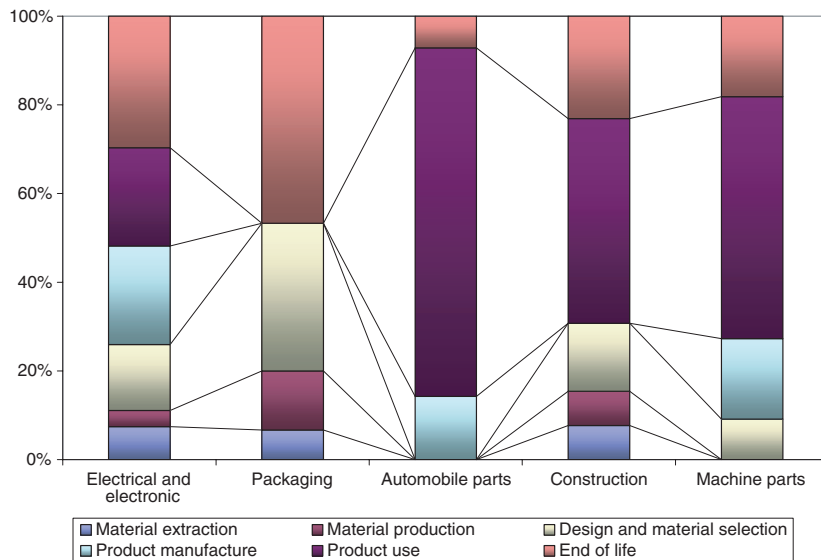


Figure 4. Distribution of eco-components in different industries in the six life cycle stages

Unlike the electrical and electronics industries, the packaging industry has focused on resource conservation and recycling. This is due to the relatively short life of its products (a few months or years). As a result, most packaging materials and components were carefully developed with great attention to the material selection, design, and end-of-life stages (Figure 4).

3.2.2 Eco-products

Studies on the development of eco-products in Japan have been scattered. With more than 500 eco-components and eco-products on the market, the authors tried determine the development status and trends of eco-products in Japan while preparing this data book. As shown in Figure 3, the three leading sectors in the field of eco-product production were machinery, home appliances, and office furniture (20%, 17%, and 14%, respectively). Commodities/outdoor/house kits, and office and information technology (IT)

equipment categories followed (11%). Automobile and carrier industries contributed only 4% of the total number of eco-products. This is due to the scale and complexity of eco-products in each sector. Unlike commodities or outdoor goods, a car consists of hundreds or thousands of different components. The apparel and fabric industries surprisingly contributed only 3% of the total number of eco-products.

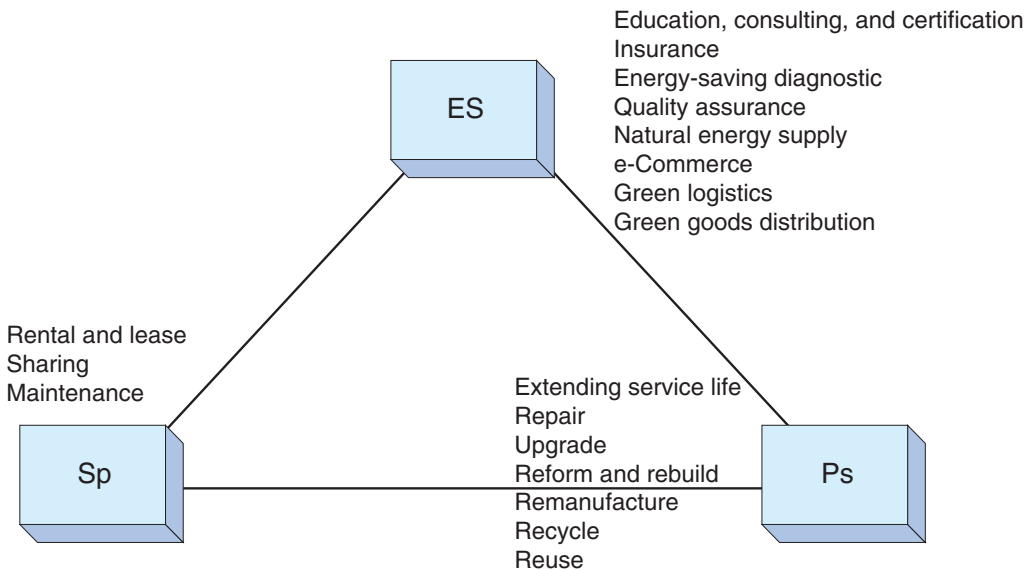
The development and production of eco-materials, eco-components, and eco-products make a great contribution to companies' sales and revenues. According to annual environmental reports, Canon had the highest eco-product sale contribution to its total sales in Japan (92.3%). Other electronics companies such as Fujitsu, Toshiba, and Matsushita Electric had eco-product sales percentages of more than 50% of total sales. For Hitachi and NEC, the figures were less than 50%. These percentages, however, do not indicate which company is better than others in the field of eco-product development and production, since different companies have different evaluation criteria for eco-products. For example, Canon had the highest sales value because its calculation method is based only on energy efficiency (ENERGY STAR®) criteria.

4. ECO-SERVICES

4.1 Development of the basic concept

Eco-services in Japan have developed along with the basic concept of eco-materials and eco-products. This approach is aimed at addressing social consumption patterns to provide function and/or utility to customers through the use of services rather than physical products. The Product-Service System (PSS), Sustainable Service System (3S), and servicizing are similar terms for eco-services used in Europe and the USA.

Classifications of eco-services are mainly based on actual business cases. The great diversity of examples of eco-services lead to a number of classifications. However, no standard classification yet exists. According to a recent study on eco-services in Japan, they can be classified into the three categories of Ps, Sp, and ES based on the relationship between product provider and user (Figure 5) (Tagusari et al., 2001). In the Ps category, a company provides its main product (P) and additional services (s). In the Sp category, a company provides mainly services (S) and additional products (p). Services that cannot be classified into the above categories are classified as ES (general Ecological Service).



Source: Tagusari et al., 2001

Figure 5. Three categories of eco-services

In this directory, eco-services are grouped into the four different categories of product-related services, reuse and recycle-related services, management-related services, and others to reflect the current practice in Japan.

4.2 Current Industrial Practices

A study in 2001 by Tagusari et al. reported a list of 51 Japanese examples of eco-services (Tagusari et al., 2001). These 51 examples were classified into the three main groups shown in Figure 5. By assuming that one example corresponds to one environmental issue among seven (resources, global warming, air emissions, waste reduction, sharing, general purposes, and forestry), the report indicated that resource saving was the main focus of eco-services in Japan (accounting for 36%). Global warming and CO₂ emission issues also received significant attention (accounting for 26% of the total). The third mainstream eco-service is for “general purposes” (15% of the total), which represented consulting and certification services. Solid waste, air emission reduction, and forestry issues were still not the main focus of Japanese industries when setting up eco-service systems (accounting for 11%, 4%, and 1%, respectively).

Another small study reported on 16 eco-services currently offered in Japan. Five main environment-related categories were used to analyze the focus of Japanese eco-services: global warming, air pollution, hazardous substances, solid waste, and resource consumption. Fifty percent of eco-service case studies reported their intention to consider global warming issue when designing eco-service systems. Resource consumption issues received slightly less consideration (37.5% of case studies reported).

5. ECO-PRODUCT EXHIBITIONS IN JAPAN

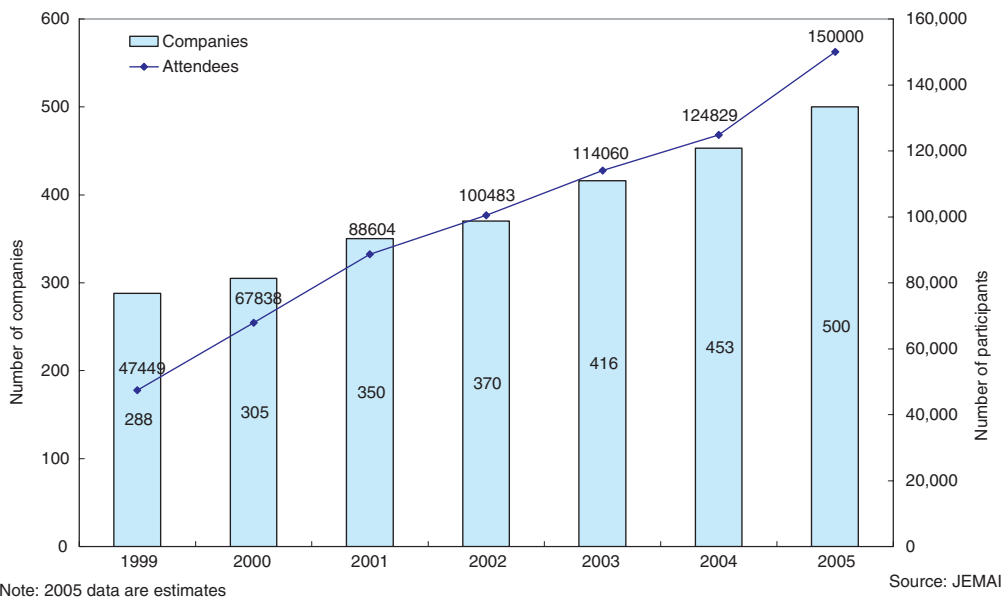


Figure 6. Number of participating companies and participants in eco-product exhibitions in Japan

In addition to the development of eco-design tools and approaches, annual eco-product exhibitions have been organized since 1999 to promote the eco-design movement in Japan. The objectives are to encourage the transition from mass production and consumption to eco-products and revolutionizing consumer awareness of the use of eco-products. A number of interested parties such as local governments, educational institutions, corporations, and NGOs have participated in the annual exhibitions. More than 300 companies and organizations participated each year (Figure 6). In addition, individuals from government authorities to private citizens, from top managers to shopfloor workers, from elementary schoolchildren to college students across the country gathered to exhibit their activities and products, exchange knowledge, and establish networks in workshops on green purchasing, environmental business, and education.

More than 450 corporations and organizations participated in the Eco-products Exhibition 2004. They exhibited a wide range of products and services, from consumer goods to fuel-cell equipment to materials for industry. A record 124,829 visitors, including ordinary consumers, green purchasing buyers, top executives of leading environment-oriented companies, and young students attended the three-day exhibition.

According to a survey conducted at the Eco-products Exhibition 2004, only 6% of participating companies questioned thought that LCA was not necessary in eco-product development, while 34%

believed that it was necessary. Among the survey respondents, 40.2% of companies had implemented LCA for their eco-products either in all or parts of companies and products. In addition, more than 50% of implementing companies had used LCA for eco-product environmental accounting as well as for developing new eco-products (JEMAI, 2005).

Authors

Hong Nguyen,* Ying Wang, Kohei Morimoto, and Ryoichi Yamamoto

References

- [1] Green Purchasing Network. Accessed online at <http://eco.goo.ne.jp/gpn/files/gpne/>. 22 July 2004.
- [2] Halada, K. et al. *Advanced in Eco-Materials-ICMAT2005*. vol 2:519 (2005).
- [3] JEMAI. *Eco-products 2004 reports*, online accessed at [<http://www.nikkei.co.jp/events/eco/>], September 2005.
- [4] Japan Environment Association. *Eco-mark*. Accessed online at <http://www.jeas.or.jp/ecomark/>. November 2003.
- [5] NEC. *Annual Environmental Report 2003*. Tokyo: NEC; 2004, p. 21.
- [6] Nguyen, X.H., Honda, T., and Yamamoto, R. *Trans. MRS-J*, 29 (5): 1799–1802 (2004).
- [7] Shinohara, Y. In: *Proceedings of the 1st Japan-China Symposium on Eco-materials, Recycling-oriented Industry and Environmental Management*, Suzhou, China, 8–11 April 2004, p. 45.
- [8] Tagusari, K., Honda, T., and Yamamoto, K. Classification of eco-efficient services in Japan. In: *Proceedings Supplement of EcoDesign 2001*, Tokyo, Japan, 11–15 December 2001, S-119.
- [9] Yamada, K., Halada, K., Ijima, K., Soeno, Y., and Sano, M. In: *Proceedings of the 8th IUMRS-ICAM 2003*, Yokohama, Japan, 8–13 October 2003.

Related Organizations List

Ecomaterials Center, National Institute for Materials Science (NIMS)

1-2-1 Sengen, Tsukuba, Ibaraki 305-0047, JAPAN

Tel: +81-29-859-2668 Fax: +81-29-859-2601

<http://www.nims.go.jp/emc/>

Ecomaterials Forum, The Society of Non-Traditional Technology (SNTT)

Sakura Bldg. 2-5-5, Toranomom, Minato-ku, Tokyo 105-0001, JAPAN

Tel: +81-3-3503-4681 Fax: +81-3-3597-0535

<http://www.sntt.or.jp/>

Green Purchasing Network (GPN)

Cosmos Aoyama B2F, 5-53-67, Jingumae, Shibuya-ku, Tokyo 150-0001, JAPAN

Tel: +81-3-3406-5155 Fax: +81-3-3406-5190

<http://www.gpn.jp/>

SPEEED (Special Project on Eco Efficiency and Eco Design)

Fe-209, 4-6-1, Komaba, Meguro-ku, Tokyo 153-8505, JAPAN

Tel +81- 3-5452-6098 ex.57780 Fax +81- 3-5452-6305

E-mail: speed17@iis.u-tokyo.ac.jp

<http://www.speeed.org/index.htm>

Yamamoto Lab., Institute of Industrial Science, University of Tokyo

Fe-207, 4-6-1, Komaba, Meguro-ku, Tokyo 153-8505, JAPAN

Tel +81- 3-5452-6098 ex. 57781 Fax +81- 3-5452-6305

<http://www.iis.u-tokyo.ac.jp/english/index.html>

1

Eco-materials

- i Metals
- ii Polymers
- iii Natural Materials
- iv Foams
- v Ceramics and Glass
- vi Composites
- vii Others



Eco-materials No.001

Metals

Steel pipe materials

High-temperature, High-strength Boiler Steel Tube

Sumitomo Metal Industries, Ltd.

1-8-11 Harumi Chuo-ku, Tokyo, 104-6111 Japan

Tel; 81-3-4416-6111 Fax; 81-3-4416-6793

E-mail; chikyu-kan@sumitomometals.co.jp

URL; <http://www.sumitomometals.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

In the view point of improvement of the global environment, high temperature and high pressure power generation boilers (Ultra Super Critical boilers) have been developed in the world due to increase the heat efficiency of boilers and then to reduce CO₂ emission. High strength and high corrosion resistant steel tubes and pipe are required for these USC (Ultra Super critical) boilers. SUPER304H, the austenitic stainless steel tube with superior high-temperature strength for power generation boilers developed by Sumitomo Metals, has superior steam oxidation resistance and twice strength at high temperatures of conventional Type 347H stainless steel due to the optimum addition of copper, niobium, nitrogen and other alloying elements and the developed thermo-mechanical tube production method.

項目	SUPER304H	SUS347H
許容引張応力 (650℃, MPa)	80	41
管寸法	φ50.8×16.6	φ50.8×110.8
重量比	68	100

Products/Model :

Super304H

Eco-materials No.002

Metals

Small bar steel

Lead-free free-cutting steel (steel bars)

Nippon Steel Corporation

2-6-3, Otemachi, Chiyodaku, Tokyo, 100-0004 Japan

Tel; 81-3-3275-5144 Fax; 81-3-3275-5979

E-mail; kankyo@hq.nsc.co.jp

URL; <http://www0.nec.co.jp/kankyow/index.html>

Category:

- A3. Hazardous Substances
- B1. Recyclability
- B6. Environmental Purification
- C4. Product Manufactures
- C6. End-of-Life

The shapes of crankshafts used in automobiles, among others, are very complicated. Manufactures demand superior free-cutting capabilities in steel to guarantee ease of manufacturability in machine processing. They have other rigid requirements, including its effect on the life of tools, and demand that the materials they purchase address all aspects of manufacturing comprehensively. In order to meet their needs, Nippon Steel came up with free-cutting steel products free of environmentally negative lead. A rage of products to meet the needs of automakers has been developed and offered by Nippon Steel.



Eco-materials No.003

Metals

Sheet steel

High-tensile Steel Plate with Superior Fatigue-resistance

Sumitomo Metal Industries, Ltd.

1-8-11 Harumi Chuo-ku, Tokyo, 104-6111 Japan

Tel; 81-3-4416-6111 Fax; 81-3-4416-6793

E-mail; chikyu-kan@sumitomometals.co.jp

URL; <http://www.sumitomometals.co.jp>

Category:

- A5. Resource Consumption
- B2. Longevity
- B4. Higher Quality
- C5. Product Use, Maintenance and Repair

The high-tensile steel plate (FCA steel plate) with superior fatigue-resistant properties developed by Sumitomo Metals has now for the first time been selected as the material for the bottom floor-plate of the 35,000 m³ LPG carrier in construction at the Nagasaki shipyards of Mitsubishi Heavy Industries, Ltd. FCA steel is the first material in the world to provide the function of improving the fatigue-resistant properties of hull steel plate. It is a path-breaking development in the materials field, and the use of FCA steel brings dramatic safety and reliability improvements to ship hull fatigue.



Products/Model :

Fatigue Crack Arrest Steel Plate

Eco-materials No.004

Metals

Sheet steel

The New S-TEN1, a steel material, saw the level of corrosion rise

Nippon Steel Corporation

2-6-3 Otemachi chiyodaku Tokyo, 100-8071 Japan

Tel; 81-3-3275-5144 Fax; 81-3-3275-5979

E-mail; kankyo@hq.nsc.co.jp

URL; <http://www0.nec.co.jp/kankyou/index.html>

Category:

- A4. Waste
- A5. Resource Consumption
- B2. Longevity
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

Demand for steel material with outstanding anti-corrosive properties is growing rapidly, especially from waste incinerating facilities exposed to corrosive hydrochloric from food and plastic waste. Nippon Steel developed the new S-TEN1, with dramatically increased anti-corrosive properties to combat hydrochloric acid than conventional products. It has been on the market on a fully-fledged basis since 2003. The new S-TEN1's ability to resist hydrochloric acid is around three times higher than that of conventional products. This makes the new S-TEN1 an ideal material for use in waste processing and chemical plants. It also leads to extended product life and a reduced frequency in maintenance requirements to benefit users, as well as an overall reduction in environmental loads on a societal level.



Eco-materials No.005

Metals

Sheet steel

HTUFF (Super High HAZ(Heat-affected zone) Toughness Technology)

Nippon Steel Corporation, 100-0004 Japan

2-6-3, Otemachi, Chiyodaku, Tokyo

Tel; 81-3-3275-5144 Fax; 81-3-3275-5979

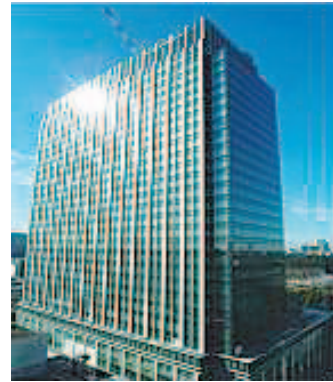
E-mail; kankyo@hq.nsc.co.jp

URL; <http://www0.nec.co.jp/kankyoindex.html>

Category:

- A5. Resource Consumption
- B2. Longevity
- C4. Product Manufactures
- C5. Product Use, Maintenance and Repair

The steel plates for ships, buildings, bridges and other large structures are prone to coarsening when exposed to the heat required during the welding process (coarsening which namely reduces toughness). Previously, a construction technique of performing welding on a gradual basis was used to ensure safety and reliability, rather than completing the welding process in one step. Nippon Steel's HTUFF super-tough and super-strong steel sheet eliminated the needed for repeated welding, since Nippon Steel radically reduced the size of metal particles in the welding-induced heat-affected areas of the HTUFF steel sheet through nanotechnology. Such miniaturization suppresses the deterioration of HTUFF's toughness, even when exposed to extreme temperatures of 1400 degrees Celsius and more. The HTUFF steel sheet drastically improved the welding efficiency of users and contributed toward energy savings. The HTUFF is the recipient of the 36th Ichimura Industrial Award presented by the New Technology Development Foundation in FY2003.



Eco-materials No.006

Metals

Sheet steel

NFG[®], Ultrafine grained steel sheets

Nakayama Steel Works, Ltd.

1-1-66 Funamachi Taisho-ku, Osaka, 551-8551 Japan

Tel; 81-6-6555-3106 Fax; 81-6-6555-4026

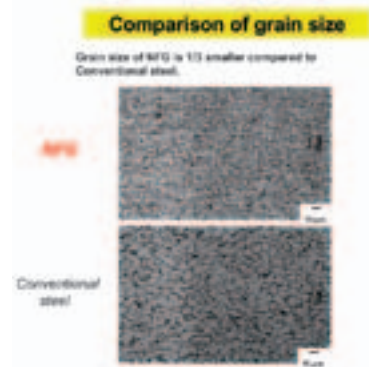
E-mail;

URL; <http://www.nakayama-steel.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B1. Recyclability
- B2. Longevity
- B5. Energy Saving

Reducing the grain size of steel increases the strength. Ultrafine grained steel has a fine grain of 1-5microns. The steel has less rare earth alloy, and is expected to have the characteristics of low temperature toughness, high fatigue strength and good workability. This material is expected to contribute greatly to realization of the social demands such as enegy saving, resouce saving and environment conservation. We developed facilities and constructed an actual hot strip mill introducing new concepts. We succeeded in producing ultrafine grained steel sheets of 2-5microns industrially.



Eco-materials No.007

Metals

Sheet steel

Flat rolled magnetic steel sheet/strip for high-efficiency motors

Nippon Steel Corporation

2-6-3, Otemachi, Chiyodaku, Tokyo, 100-8071 Japan

Tel; 81-3-3275-5144 Fax; 81-3-3275-5979

E-mail; kankyo@hq.nsc.co.jp

URL; <http://www0.nsc.co.jp/kankyoku/index.html>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Since motors are increasingly required to be highly efficient in terms of energy saving, thin high-efficiency electrical steel sheets have applications in a variety of fields, such as motors used for hard disc drive units, motors for electric vehicles, and power generators for microgas turbines. Nippon Steel developed high-tensile thin electrical steel sheets for ultra high-speed motors and high-torque, high-formability thin electrical steel sheets for hard disc drive units.



Eco-materials No.008

Metals

Sheet steel

Tailored Blanking

Sumitomo Metal Industries, Ltd.

1-8-11 Harumi Chuo-ku, Tokyo, 104-6111 Japan

Tel; 81-3-4416-6111 Fax; 81-3-4416-6793

E-mail; chikyu-kan@sumitomometals.co.jp

URL; <http://www.sumitomometals.co.jp>

Category:

- A1. Global Warming
- B3. Resource Saving
- B5. Energy Saving
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

In tailored welded blanks technology, many kinds of steel sheet are joined together like a patchwork and supplied to press-forming and are applied to car body. In normal way, thickness of stamped parts is same in whole panel. Therefore, in some portion of part, the thickness is thicker than required by strength design. However by this technology, the thickness can be minimized from portion to portion, thus automotive body weight can be reduced; Sumitomo Metals is implementing new tailored welded blank technologies that allow welding along curves and diagonals in addition to perpendiculars and expanding the range of its applications.



Products/Model :
Tailored Blanking

Eco-materials No.009

Metals

Sheet steel

High-strength Steel Sheet

Sumitomo Metal Industries, Ltd.

1-8-11 Harumi Chuo-ku, Tokyo, 104-6111 Japan

Tel; 81-3-4416-6111 Fax; 81-3-4416-6793

E-mail; chikyu-kan@sumitomometals.co.jp

URL; <http://www.sumitomometals.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

In 1979 Sumitomo Metals developed the world's first bake-hardenable high-strength steel sheet for automotive application. Bake-hardenable steel sheet harden through paint-baking process at 180C, exhibits excellent dent-resistance and is applied to automotive panel, door and hood. We have continued to develop various high-strength steel sheet, and are contributing to reduce vehicle weight by developing Sumident Super with larger bake-hardenability and Ultra High-strength Steel Sheet.



Products/Model :
Sumi-dent Super

Eco-materials No.010

Metals

Sheet steel

Three-layer Clad Steel Sheet

Sumitomo Metal Industries, Ltd.

1-8-11 Harumi Chuo-ku, Tokyo, 104-6111 Japan

Tel; 81-3-4416-6111 Fax; 81-3-4416-6793

E-mail; chikyu-kan@sumitomometals.co.jp

URL; <http://www.sumitomometals.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B3. Resource Saving
- B4. Higher Quality
- C5. Product Use, Maintenance and Repair

Sumitomo Metals (Naoetsu) Ltd. has succeeded in developing a production process for thermo-sensitive clad steel using an alloy whose temperature does not rise above a given level in electromagnetic induction heating and has begun supplying it as the dedicated base material for thermo-sensitive frying pans and deep fryers. The company has also developed a three-layer clad steel of copper, stainless steel and aluminum layers for induction heating thermoses and brought it to mass production. Not only is this three-layer clad steel superior to two-layer clad steel in terms of induction heating efficiency and heat transfer properties, it is also more lightweight.



Products/Model :
Copper/Stainless/Aluminium Clad Sheet

Eco-materials No.011

Metals

Sheet steel

High-heat-emmission Steel Sheet

Sumitomo Metal Industries, Ltd.

1-8-11 Harumi Chuo-ku, Tokyo, 104-6111 Japan

Tel; 81-3-4416-6111 Fax; 81-3-4416-6793

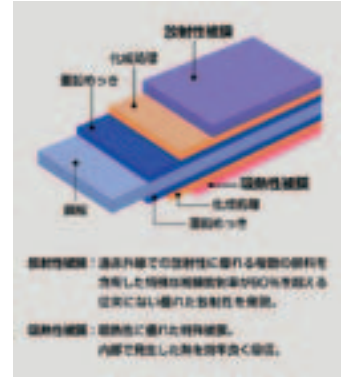
E-mail; chikyu-kan@sumitomometals.co.jp

URL; <http://www.sumitomometals.co.jp>

Category:

- A5. Resource Consumption
- B2. Longevity
- B4. Higher Quality
- C5. Product Use, Maintenance and Repair

Sumitomo Metals started work on high-emission steel sheet well in advance of other steelmakers, since ten years ago we have been supplying Sumitomo High-emission Pre-painted steel sheet for the cover of the stabilizers of fluorescent lamps as a measure to cope with the heat emission of fluorescent lamps. Sumitomo High-emission Pre-painted Steel Sheet is applied special paint on cold-rolled steel sheet or galvanized steel sheet and it's emissivity is 94%. Also it can restrain the temperature rise in the simulated cabinet less than 60C while the regular zinc coated steel increase 73C in the same cabinet.



Products/Model :

Sumitomo High Coat(High-heat-emission type)

Eco-materials No.012

Metals

Sheet steel

High-efficiency Electric Steel Sheet

Sumitomo Metal Industries, Ltd.

1-8-11 Harumi Chuo-ku, Tokyo, 104-6111 Japan

Tel; 81-3-4416-6111 Fax; 81-3-4416-6793

E-mail; chikyu-kan@sumitomometals.co.jp

URL; <http://www.sumitomometals.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

In order to improve energy efficiency of motors, Sumitomo Metals has been developed non-oriented electric steel sheet with good machinability and high-efficiency. This steel has been applied to compressor motors in air conditioners. We are now strongly proposing to automotive companies to adopt our 27SX series of electric steel sheet for high-efficiency motors that delivers both high permeability and low iron loss in high frequency application. This adoption will result in improvement in automotive fuel economy and compliance with exhaust regulations.



Products/Model :

T27X series

Eco-materials No.013

Metals

Sheet steel

Chromium-free Coated Steel Sheet

Sumitomo Metal Industries, Ltd.

1-8-11 Harumi Chuo-ku, Tokyo, 104-6111 Japan

Tel; 81-3-4416-6111 Fax; 81-3-4416-6793

E-mail; chikyu-kan@sumitomometals.co.jp

URL; <http://www.sumitomometals.co.jp>

Category:

- A3. Hazardous Substances
- A4. Waste
- B1. Recyclability
- B6. Environmental Purification
- C6. End-of-Life

The development of chromium-free treatment on various coated steel sheet become essential in recent years in order to comply with regulations for toxic substances. We have developed all kinds of chromium-free treatment on coated steel sheet.



Products/Model :

Tough-zinc Hyper NEO/Sumi-zinc NEO coat T1

Eco-materials No.014

Metals

Sheet steel

Non-oriented / Grain-oriented Electrical Steel Sheets

JFE Steel Corporation

2-3, Uchisaiwai-cho 2-chome, Chiyoda-ku, Tokyo, 100-0011 Japan

Tel; 81-3-3597-3734 Fax; 81-3-3597-3035

E-mail;

URL; <http://www.jfe-steel.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

JFE Steel has developed and is producing "Non-oriented Electrical Steel Sheets for High Efficiency Motors," which were developed to achieve low iron loss in motors, and thereby reduce power loss, particularly by reducing high frequency iron loss. JFE Steel developed and is producing "Grain-oriented Electrical Steel Sheets for High Efficiency Transformers." With excellent magnetic properties, these products achieve energy savings while reducing transformer noise by increasing magnetic flux density and suppressing the magnetostriction.



Products/Model :

Non-oriented electrical steel sheets

Eco-materials No.015

Metals

Sheet steel

The GA-TRIP hot -dip galvanized sheet boasts the high strength

Nippon Steel Corporation

2-6-3, Otemachi, Chiyodaku, Tokyo, 100-0004 Japan

Tel; 81-3-3275-5144 Fax; 81-3-3275-5979

E-mail; kankyo@hq.nsc.co.jp

URL; <http://www0.nec.co.jp/kankyou/index.html>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B2. Longevity
- B3. Resource Saving
- C6. End-of-Life

Nippon Steel was the first company worldwide to successfully develop and commercialize alloy hot-dipped galvanized steel sheets for automobiles with tensile strength in the 60 and 80 kilogram classes, by overcoming the conventional notion that high tensile would be impossible without compromising the quality of galvanization. The new product was selected as a material for new car models introduced in 2003. It greatly improves the collision safety of cars, vehicle weight and the balance between press formability and extended lifespan.



Eco-materials No.016

Metals

Sheet steel

High-endothermic steel sheet

Nippon Steel Corporation

2-6-3, Otemachi, Chiyodaku, Tokyo, 100-0004 Japan

Tel; 81-3-3275-5144 Fax; 81-3-3275-5979

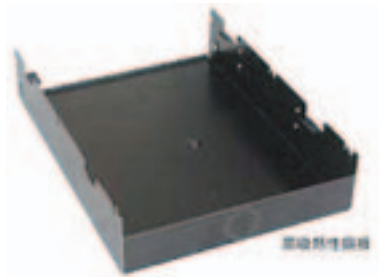
E-mail; kankyo@hq.nsc.co.jp

URL; <http://www0.nec.co.jp/kankyou/index.html>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B3. Resource Saving
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

In view of the trend toward higher performance, higher speed, and smaller size, it has become important for electric appliances to release internally generated heat efficiently to the outside. Nippon Steel, after the successful development of special organic film in 2002, has started to distribute high-endothermic steel sheets that release the heat generated inside electric appliances efficiently to the outside.



Eco-materials No.017

Metals

Sheet steel

Steel sheet useful for body weight reduction of automobile

JFE Steel Corporation

2-3, Uchisaiwai-cho 2-chome, Chiyoda-ku, Tokyo, 100-0011 Japan

Tel; 81-3-3597-3734 Fax; 81-3-3597-3035

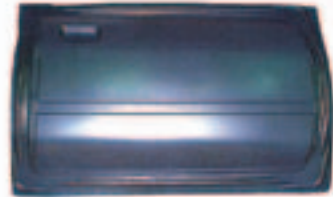
E-mail;

URL; <http://www.jfe-steel.co.jp>

Category:

- A1. Global Warming
- B3. Resource Saving
- B5. Energy Saving

High tensile strength steel makes the thickness of the plate thinner, because it is strong. As the steel plate for the automobile, it ensures the safety of the car body, and contributes to the prevention of the global warming through the improvement in the fuel consumption by the lightening of the car body. In order to receive using the high tensile strength steel plate, JFE Steel Co. assorted various materials for all grades which is excellent in stamping performance, weldability, fatigue characteristics and adhesion of the plating.



Eco-materials No.018

Metals

Sheet steel

JFE-SX1

JFE Steel Corporation

2-3, Uchisaiwai-cho 2-chome, Chiyoda-ku, Tokyo, 100-0011 Japan

Tel; 81-3-3597-3734 Fax; 81-3-3597-3035

E-mail;

URL; <http://www.jfe-steel.co.jp>

Category:

- A3. Hazardous Substances
- B1. Recyclability

JFE Steel is a leader in R&D on ferritic stainless steels for fuel tanks, where this material offers excellent corrosion resistance and recyclability, and developed "JFE-SX1" with high formability and corrosion resistance. The performance of this product has also been confirmed in the common corrosion resistance test for North America by the SASFT. JFE-SX1 also possesses sufficient corrosion resistance for high concentration biomass alcohol fuels. Because heavy painting for corrosion resistance is not necessary, it also contributes to reducing environmental loads and improving the working environment in the tank manufacturing process. Where formability is concerned, JFE-SX1 is the world's first ferritic stainless steel to achieve an extremely high Lankford value (r-value)*3 of 2.6 and has demonstrated satisfactory ultra-deep drawability.



Products/Model :

Fuel tank using stainless steel.

Eco-materials No.019

Metals

Sheet steel

Non-lead Free-cutting Steel

Sumitomo Metal Industries, Ltd.

1-8-11 Harumi Chuo-ku, Tokyo, 104-6111 Japan

Tel; 81-3-4416-6111 Fax; 81-3-4416-6793

E-mail; chikyu-kan@sumitomometals.co.jp

URL; <http://www.sumitomometals.co.jp>

Category:

- A3. Hazardous Substances
- A4. Waste
- B1. Recyclability
- B3. Resource Saving
- C6. End-of-Life

Lead containing free-cutting steel was developed for the usage of the crankshafts and other strong members of automobiles and motorcycles. However the environmental awareness of recent years has raised the need of lead-free free-cutting steel. Sumitomo Metals and Sumitomo Metals (Kokura) Co., Ltd. have therefore developed the technology of controlling the shape of sulfides and have provided a series of lead-free free-cutting steel products.



Products/Model :

Sumi Green S,T,X

Eco-materials No.020

Metals

Crude steel and semi-finished steel products

Daido's Matrix type high speed tool steels: DRM(DREAM)

Daido Steel Co., Ltd.

6-35, 1-CHOME, KONAN, MINATO-KU, TOKYO, 108-8478 JAPAN

Tel; 81-3-5495-1271 Fax; 81-3-5495-6739

E-mail; t-araki@ac.daido.co.jp

URL; <http://www.daido.co.jp>

Category:

- A5. Resource Consumption
- B2. Longevity
- B4. Higher Quality
- C4. Product Manufactures
- C5. Product Use, Maintenance and Repair

Daido Steel has newly developed three "matrix type high speed tool steels": DRM series. Daido's highly sophisticated process technology realizes high toughness by carbides controlling to fine and uniform distribution. DRM steels suppress cracking and chipping in forging tools and contributes to longer service life. DRM series consist of three steel class of DRM1, DRM2, DRM3, and, depending on a use, use condition, steel class and the choice of hardness (56-66 HRC) are possible.



Products/Model :

punch and pin (product example)

Eco-materials No.021

Metals

Crude steel and semi-finished steel products

New free machining steel without lead (Ecological steel)

Daido Steel Co., Ltd.

6-35, 1-CHOME, KONAN, MINATO-KU, TOKYO, 108-8478 JAPAN

el; 81-3-5495-1273 Fax; 81-3-5495-6740

E-mail; t-miyake@bw.daido.co.jp

URL; <http://www.daido.co.jp>

Category:

- A3. Hazardous Substances
- B3. Resource Saving
- B4. Higher Quality
- C2. Material and Components Production
- C5. Product Use, Maintenance and Repair

This new free machining steel is characterized by characteristic inclusions as calcium sulphides surrounding calcium aluminates controlled by special calcium treatment. This steel not only has a good machinability same as of 0.05% lead steel in drilling operation with high speed steel tool, but also has that more than conventional calcium bearing freemachining steel in turning operation. The mechanical properties of this free machining steel is also attractive, in addition to machineability. The degradation of strength and enlargement of anisotropy in the mechanical properties with increase of sulphur contents is small due to the characteristic morphology of inclusions in this steel. The performance of this steel has made it possible to apply the free machining steel to the structural steel such as even high-strength steel for gear.



Products/Model :
gear (product example)

Eco-materials No.022

Metals

Galvanized steel sheets, including galvanized steel loops

Steel plate without chromium (VI), SILVERTOP ECO

Toyo Kohan Company, Limited

2-12, Yonbancho, Chiyoda-ku, Tokyo, 102-8447 Japan

Tel; 81-3-5211-6211 Fax; 81-3-5211-0181

E-mail;

URL; <http://www.toyokohan.co.jp/>

Category:

- A3. Hazardous Substances
- A4. Waste
- B6. Environmental Purification
- C2. Material and Components Production
- C6. End-of-Life

The surface treated steel plate is post-processed with unique non-chromium chemical treatment on its surface following to composite electrical zinc plating. The plate has beautiful surface, outstandingly smooth and antifriction characteristics, and fits for lead-free soldering as other similar products do. In addition, there is no environmental contamination caused by chromium (VI) when the product is disposed.



Products/Model :
Electronic devices

Eco-materials No.023

Metals

Tin-free steel

Laminated steel plate for metal containers, Hi-Pet

Toyo Kohan Company, Limited

2-12, Yonbancho, Chiyoda-ku, Tokyo, 102-8447 Japan

Tel; 81-3-5211-6211 Fax; 81-3-5211-0181

E-mail;

URL; <http://www.toyokohan.co.jp/>

Category:

- A1. Global Warming
- A4. Waste
- B5. Energy Saving
- B6. Environmental Purification
- C4. Product Manufactures

The product is laminated steel plate with polyester resin after the steel surface is treated, which contributes to reducing environmental influence when metal cans are manufactured. More specifically, environmental influence on the atmosphere and waste water are reduced through elimination of painting and cleaning process, while no sludge is produced when metal cans are manufactured.



Products/Model :

Environment-friendly bottle can, TEC200

Eco-materials No.024

Metals

Coated steel

Laminated steel plate without vinyl chloride, FINETOP

Toyo Kohan Company, Limited

2-12, Yonbancho, Chiyoda-ku, Tokyo, 102-8447 Japan

Tel; 81-3-5211-6211 Fax; 81-3-5211-0181

E-mail;

URL; <http://www.toyokohan.co.jp/>

Category:

- A3. Hazardous Substances
- A4. Waste
- B6. Environmental Purification
- C2. Material and Components Production
- C6. End-of-Life

The product is steel plate laminated with special polyester resin onto galvanized plate, which is used for household electric appliances, and steel plate for internal building materials. The product replaces conventional vinyl chloride steel plates, and produces no toxic gasses when burned by a fire or other accidents.



Products/Model :

Partition

Eco-materials No.025

Metals

Coated steel

Lead-free steel sheet for car fuel tank

Nippon Steel Corporation

2-6-3, Otemachi, Chiyodaku, Tokyo, 100-8071 Japan

Tel; 81-3-3275-5144 Fax; 81-3-3275-5979

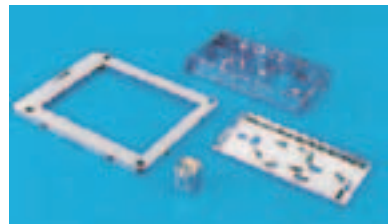
E-mail; kankyo@hq.nsc.co.jp

URL; <http://www0.nsc.co.jp/kankyou/index.html>

Category:

- A3. Hazardous Substances
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

Conventionally, lead-coated steel sheets have been used for car fuel tanks. Nippon Steel is now supplying a newly developed lead-free aluminum or tin-zinc coated steel sheet (Silver Zinc-NT). This eliminates the problem of lead in shredder dust, generated when cars are scrapped.



Eco-materials No.026

Metals

Coated steel

Steel sheet coated with chromate-free film

Nippon Steel Corporation

2-6-3, Otemachi, Chiyodaku, Tokyo, 100-8071 Japan

Tel; 81-3-3275-5144 Fax; 81-3-3275-5979

E-mail; kankyo@hq.nsc.co.jp

URL; <http://www0.nsc.co.jp/kankyou/index.html>

Category:

- A3. Hazardous Substances
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

Conventionally, galvanized steel sheets are used in the manufacture of home electrical appliances such as refrigerators, washing machines, and air conditioners to prevent rust. However, the sheets are coated with a film containing trace amounts of chromic acid to prevent the zinc from being oxidized. Nippon Steel developed an eco-friendly resin coating, free of chromic acid, that protects the surface zinc against oxidation.



Eco-materials No.027

Metals

Coated steel

Pre-coated steel sheet; to eliminate the painting process

Nippon Steel Corporation

2-6-3, Otemachi, Chiyodaku, Tokyo, 100-8071 Japan

Tel; 81-3-3275-5144 Fax; 81-3-3275-5979

E-mail; kankyo@hq.nsc.co.jp

URL; <http://www0.nsc.co.jp/kankyoku/index.html>

Category:

- A3. Hazardous Substances
- A5. Resource Consumption
- B3. Resource Saving
- B6. Environmental Purification
- C4. Product Manufactures

Nippon Steel's prepainted steel sheet (trademarked as Viewcoat) is used in washing machines, refrigerators and outdoor air conditioner units. Customers can specify their chosen color and this eliminates the painting process following fabrication and assembly. Pre-painted on a dedicated painting line, Viewcoat excels in paint film quality, minimizes paint loss and greatly reduces environmental impact.



Eco-materials No.028

Metals

Coated steel

Chromate-free Coated Steel Sheet

JFE Steel Corporation

2-3, Uchisaiwai-cho 2-chome, Chiyoda-ku, Tokyo, 100-0011 Japan

Tel; 81-3-3597-3734 Fax; 81-3-3597-3035

E-mail;

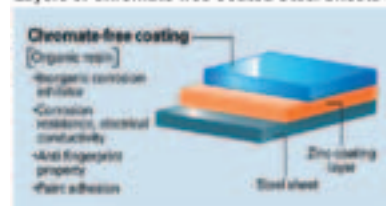
URL; <http://www.jfe-steel.co.jp>

Category:

- A3. Hazardous Substances
- B2. Longevity
- B6. Environmental Purification
- C3. Design and Material selection

The EU has set a deadline of July 2006 for replacing hexavalent chrome, lead, mercury, and cadmium with substitutes. Because exported appliances must meet this requirement and similar regulations are expected in Japan in the near future, JFE developed a coated steel sheet which contains no chrome (VI) but still offers excellent corrosion resistance, surface conductivity, paintability, anti-fingerprint property, and lubricity. This product is now used in internal panels of appliances and vending machines, internal components of OA equipment and copiers, chassis of televisions, VTRs, and audio equipment, and other parts, and an expanded range of applications is expected.

Layers of Chromate-free Coated Steel Sheets



Eco-materials No.029

Metals

Coated steel

Universal Brite

JFE Steel Corporation

2-3, Uchisaiwai-cho 2-chome, Chiyoda-ku, Tokyo, 100-0011 Japan

Tel; 81-3-3597-3734 Fax; 81-3-3597-3035

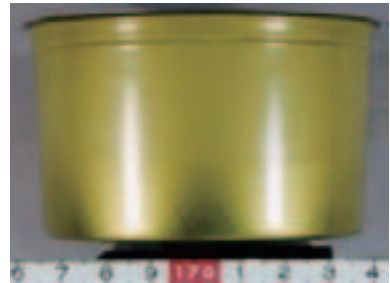
E-mail;

URL; <http://www.jfe-steel.co.jp>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B3. Resource Saving

"Universal Brite" is an epoch-making laminated steel sheet for food cans which was developed based on proprietary JFE Steel technologies. Using a base homo-PET film with a unique molecular structure, a special additive which proves the meat release property (easy removal of the contents) is added to the film surface layer, making it possible to omit the painting/baking processes while securing excellent formability, adhesion, corrosion resistance, and a meat release property equal to or better than those of existing paints.



Products/Model :

Example of canmaking (half-pound food can)

Eco-materials No.030

Metals

Coated steel

Weathering Steel

JFE Steel Corporation

2-3, Uchisaiwai-cho 2-chome, Chiyoda-ku, Tokyo, 100-0011 Japan

Tel; 81-3-3597-3734 Fax; 81-3-3597-3035

E-mail;

URL; <http://www.jfe-steel.co.jp>

Category:

- A3. Hazardous Substances
- B2. Longevity
- B3. Resource Saving
- B4. Higher Quality
- C5. Product Use, Maintenance and Repair

Weathering steels, which use rust to prevent rust to possess good corrosion resistance without painting because the steel is designed to form a protective rust film. Widely used in civil engineering and construction, and particularly in bridges, weathering steels extend the life of steel structures to 50-100 years without painting. JFE has also developed Ni added high performance weather steels for use in environments with high airborne salt concentrations, which was impossible with conventional weathering steels, expanding the range of applications and contributing to global environmental preservation.



Products/Model :

Non-oriented electrical steel sheets

Eco-materials No.031

Metals

Coated steel

Alloy Steel Powder for Sinter-hardening

JFE Steel Corporation

2-3, Uchisaiwai-cho 2-chome, Chiyoda-ku, Tokyo, 100-0011 Japan

Tel; 81-3-3597-3734 Fax; 81-3-3597-3035

E-mail;

URL; <http://www.jfe-steel.co.jp>

Category:

- A1. Global Warming
- B5. Energy Saving
- C4. Product Manufactures

JFE Steel developed "Alloy Steel Powder for Sinter-hardening", which realizes high strength without carburizing. Because the microstructure is strengthened in the cooling process after sintering, tensile strength exceeding 900 MPa and surface hardness exceeding 30 HRC can be obtained. These mechanical properties are superior to those of conventional alloy steel powders with carburizing. The product has been adopted in power tools gears and similar applications.



Products/Model :
Power tool part

Eco-materials No.032

Metals

Non-ferrous metals by primary smelting and refining

Polycrystalline Silicon (Materials for solar power systems)

Mitsubishi Materials Polycrystalline Silicon Corporation

5, Mita-cho, Yokkaichi, Mie, 510-0841 Japan

Tel; 81-593-45-5191 Fax; 81-593-46-5815

E-mail;

URL;

Category:

- A1. Global Warming

We are producing polycrystalline silicon for semiconductor and solar cell from metallurgical silicon by processing it through chlorination, distillation and reduction processes. The polycrystalline silicon for solar cell is a major raw material for photovoltaic industry and the energy generated from solar cell is clean without any generation of CO₂. Global warming is an urgent issue not only for human beings but also any lives on the globe now. We are contributing to preservation and restoration of the natural environment on the earth by supplying polycrystalline silicon.



Products/Model :
Polycrystalline silicon for solar cell

Eco-materials No.033

Metals

Rolled and drawn brass products

ECO BRASS® (LEAD-FREE BRASS)

Sambo Copper Alloy Co., LTD

374, 8 cho, Sambo Cho, Sakai City, Osaka, 590-0906 Japan

Tel; 81-72-233-1161 Fax; 81-72-227-6590

E-mail; tech@sambo.co.jp

URL; <http://www.sambo.co.jp>

Category:

- A3. Hazardous Substances
- B4. Higher Quality
- C2. Material and Components Production
- C6. End-of-Life

ECO BRASS is a lead-free brass and environmentally friendly brass material. Instead of using heavy metal harmful to the human body, a precipitating metallic compound in the metal structure realizes good machinability.

Key Features: 1)Lead-free environmentally friendly brass material 2)High strength equivalent to stainless steel 3)Good machinability nearly equal to brass rod containing 1% lead 4)Excellent machined surface 5)Excellent de-zincification corrosion resistance 6)Excellent stress corrosion cracking resistance 7)Excellent warm brittleness cracking resistance 8)Excellent hot forgeability 9)Easily accepts soldering and brazing 10)Good castability

Applications: 1)Water supply devices such as faucets, valves, fittings, etc. 2)Precision parts as a substitute for stainless steel such as shafts, screw, bearings 3)Electrical parts and connectors 4)Automobile parts: lead-free requirements 5)Medical devices



Products/Model :

Machined Products using ECO BRASS rods

Eco-materials No.034

Metals

Aluminum Die-Cast Cylinder

All aluminum Yamaha DiASil Cylinder: High functionality, low-cost

YAMAHA MOTOR CO., LTD.

Shingai, Iwata Shizuoka, 438-8501 Japan

Tel; 81-538-32-1100 Fax; 81-538-32-1100

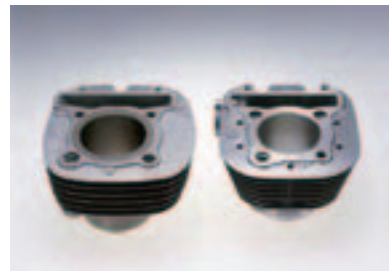
E-mail;

URL; <http://www.yamaha-motor.co.jp/>

Category:

- A4. Waste
- B1. Recyclability
- B4. Higher Quality
- C2. Material and Components Production
- C6. End-of-Life

The new Yamaha "DiASil Cylinder" is made using a process that brings together an ideal combination of material, manufacturing technology and environmental friendliness. The manufacturing technology is the recently developed Yamaha CF Aluminum Die-cast Technology, which allows production of an all-aluminum die-cast cylinder. The material used is a 20% silicon content aluminum alloy.



Products/Model :

DiASil Cylinder

Eco-materials No.035

Metals

Non-ferrous metal products

FINEMET® EMC COMPONENTS

Hitachi Metals Singapore Pte. Ltd.

12 Gul Avenue, Singapore 629656
Tel; 65-6861-7711 Fax; 65-6861-9554
E-mail;
URL;

Category:

- A5. Resource Consumption
- B5. Energy Saving

EMC Noise Reduction Products. As IT and electronics devices improve in its performance, EMC regulations for those devices tends to be tighten. It requires higher performance in noise suppression for electric components and parts. Hitachi Metals provides a series of excellent EMC components using FINEMET®, the first nanocrystalline soft magnetic material in the world, to meet EMC requirement. FINEMET® EMC components allow superior technical solution (e.g. excellent electromagnetic noise suppression performance and size reduction) and low energy loss for your application.



Products/Model :
FINEMET® EMC COMPONENTS

Eco-materials No.036

Metals

Powder metallurgy products

The hard alloy with high wear and corrosion resistance, KH

Toyo Kohan Company, Limited

2-12, Yonbancho, Chiyoda-ku, Tokyo, 102-8447 Japan
Tel; 81-3-5211-6211 Fax; 81-3-5211-0181
E-mail;
URL; <http://www.toyokohan.co.jp/>

Category:

- A5. Resource Consumption
- B2. Longevity
- B4. Higher Quality
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

The hard alloy, KH is iron-based, sintered alloy, containing several components such as Cr, Mo, Ni and W. This new type alloy with complex boride is vastly superior in terms of wear resistance, corrosion resistance, and oxidation resistance at high temperature. The complex boride cermet is completely a new type sintered alloy which our company is the first to successfully develop in the world. Main applications of KH are parts of injection molding machines for engineering plastics and ceramics. If you have any trouble with wear or corrosion of screws, cylinders, and nozzles in injection molding machines or kneading molding machines, KH machineries lead to the resolution. KH screws and cylinders have long-life in corrosion resistance that is twenty times higher than that of nitriding steel and five times higher than that of commonly used special material for wear resistance.



Products/Model :
Applications of KH

Eco-materials No.037

Metals

Sewage Treatment Equipment Bio-Tube System

Bio Tube System

JFE Engineering Corporation

1-1-2,Marunoushi,Chiyoda-ku,Tokyo, 100-0005 Japan

Tel; 81-3-3217-3912 Fax; 81-3-3214-9650

E-mail;

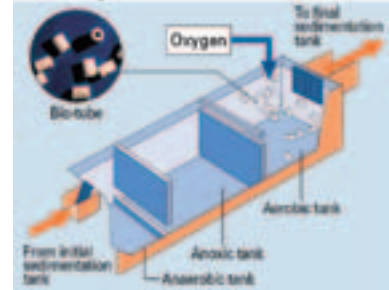
URL; <http://www.jfe-eng.co.jp>

Category:

- A4. Waste
- B4. Higher Quality
- C6. End-of-Life

JFE Engineering developed a practical advanced sewerage treatment system called the "Bio-Tube System", which greatly increases the N and P treatment capacity while saving space and reducing costs. Because it is possible to fix a large quantity of nitrification bacteria and other useful bacteria which have the slow reproduction rates indispensable for N removal on the carrier surface, a high concentration of effective bacteria can be maintained in the reaction tank by using Bio-Tubes in the reaction tank as a microorganism fixing carrier. This makes it possible to reduce the capacity of the reaction tank by approximately half in comparison with conventional advanced sewerage treatment systems.

Bio-tube system



Eco-materials No.038

Metals

Residential buildings

Construction method using thin-sheet steel for extra durability

Nippon Steel Corporation

2-6-3, Otemachi, Chiyodaku, Tokyo, 100-8071 Japan

Tel; 81-3-3275-5144 Fax; 81-3-3275-5979

E-mail; kankyo@hq.nsc.co.jp

URL; <http://www0.nsc.co.jp/kankyou/index.html>

Category:

- A1. Global Warming
- A4. Waste
- B2. Longevity
- B3. Resource Saving
- B5. Energy Saving

Nippon Steel Corporation developed a new construction method called "Nittetsu super frame" using thin-sheet steel for low rise residential buildings. Offering extra durability, it involves the use of galvanized thin-sheet steel for the frame of wooden buildings constructed using the two-by-four system. The method involves adiabatic construction which involves packing the outside walls of the building with heat insulator. This provides more efficient heating and air-conditioning and saves energy. In addition, the use of recyclable steel products helps to conserve forest resources.



Eco-materials No.039

Polymers

Rooftop Greening Pallet

Easy to handle pallets for rooftop greening

Nippon Steel Corporation

2-6-3, Otemachi, Chiyodaku, Tokyo, 100-8071 Japan

Tel; 81-3-3275-5144 Fax; 81-3-3275-5979

E-mail; kankyo@hq.nsc.co.jp

URL; <http://www0.nsc.co.jp/kankyou/index.html>

Category:

- A4. Waste
- A5. Resource Consumption
- B5. Energy Saving
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

Unlike conventional rooftop greening methods in which earth is spread on the roof surface, this pallet method uses pre-planted greening pallets linked with joints. The pallets themselves are made of recyclable polypropylene and although they are lightweight, they are designed to be wind-proof. Limited maintenance is required and they provide a good heat-insulating effect in summer and heat-retention effect in winter. In addition to energy savings, they help to alleviate heat island phenomenon.



Eco-materials No.040

Polymers

Ink

New Eco-mark support ink for offset printing machine

Dainippon Ink And Chemicals, Incorporated

3-7-20, Nihonbashi, Chuo-ku, Tokyo, 103-8233 Japan

Tel; 81-3-5203-7753 Fax; 81-3-3278-0253

E-mail;

URL; <http://www.dic.co.jp/form.html>

Category:

- A2. Air Pollution
- A3. Hazardous Substances
- B4. Higher Quality
- C2. Material and Components Production
- C5. Product Use, Maintenance and Repair

This ink is an ink for offset printing machine that conforms to Japan's new Eco mark. The new Eco Mark guidelines specify 45% as the maximum permissible content for petroleum-based solvents, which contain volatile organic compounds (VOCs). Generally, reduction of the solvent content of ink lengthens drying time. The Web World ADVAN, which we developed, features a new resin that eliminates the need for petroleum-based solvents while actually accelerating drying time.



Eco-materials No.041

Polymers

Plastic profile extrusions

"IT wood" made of polypropylene waste

Intact, private limited company

939-1 Akaoka-chou Kami-gun Kochi, 781-5310 Japan

Tel; 81-887-55-5144 Fax; 81-887-55-2437

E-mail; intact@mxi.netwave.or.jp

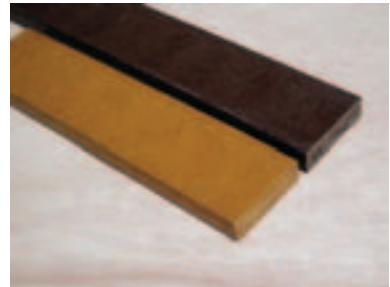
URL; <http://www.intact.jp/intact.html>

Category:

- A1. Global Warming
- A4. Waste
- B1. Recyclability
- B3. Resource Saving
- B7. Usage of Recycled Materials

Plastic product manufactured from oil resource is one of the commodities which support the infrastructure of today, and lots of plastic products are buried or burnt after they finished their roles. However, it is possible to efficiently use them by recycling, although the recycling process needs a small amount of heat energy.

Our company's product is wood-like plastic boards and square timbers, which are produced by extruding of the raw material that consists of mainly polypropylene. The properties of "IT wood" resemble those of natural wood, but "IT wood" is not attacked by termite and also it does not rot even in the place with moisture.



Eco-materials No.042

Polymers

heat-resistant / insulation tubing

UL recognized tubing as replacement for PVC tubing

Sumitomo Electric Fine Polymer, INC.

1-950, Asashiro nishi, Kumatori-cho, Sennan-gun, Osaka, 590-0458

Japan

Tel; 81-724-52-7192 Fax; 81-724-52-7195

E-mail;

URL; <http://www.sei-sfp.co.jp>

Category:

- A3. Hazardous Substances
- A4. Waste
- B4. Higher Quality
- C3. Design and Material selection
- C6. End-of-Life

UL recognized tubing as replacement for PVC tubing, "IRRAX® TUBE RP3, RP6", is environmentally-friendly product and does not include RoHS directive substances(Lead, Cadmium, Hexavalent chromium, Mercury and these compounds, PBDEs and PBBs) and PVC(polyvinyl Chloride). "IRRAX® TUBE RP3, RP6" has flexibility such like PVC, UL recognition(105°C temperature rating, 300V or 600V rating, highly flame retardant VW-1), and it's suitable for replacement for PVC tubing.



Products/Model :

IRRAX® TUBE RP3, RP6

Eco-materials No.043

Polymers

Connector, bobbin, automotive parts, and molding material

Heat-resistant molding material for electronic components

Sumitomo Electric Fine Polymer, INC.

1-950, Asashiro nishi, Kumatori-cho, Sennan-gun, Osaka, 590-0458
Japan
Tel; 81-724-52-7192 Fax; 81-724-52-7195
E-mail;
URL; <http://www.sei-sfp.co.jp>

Category:

- A4. Waste
- B5. Energy Saving
- C4. Product Manufactures

When connectors or bobbins are mounted or processed using lead-free solder, the resin can be deformed by high temperature. TERALINK features high heat resistance, which can tolerate lead-free solder mounting, by bridging the resin. Moreover, TERALINK is superior in antifriction, enabling resin replacements for metal parts. These features contribute to the weight reduction of automotive components, thus reducing the environment load by low fuel consumption.



Products/Model :
TERALINK

Eco-materials No.044

Polymers

Para aramid fiber

TWARON®; Para-aramid fiber

TEIJIN TECHNO PRODUCTS LIMITED

1-1, Uchisaiwaicho 2-chome, Chiyoda-ku, Tokyo, 100-8585 Japan
Tel; +81-3-3506-4873 Fax; +81-3-3506-4199
E-mail; m.matsumura@teijin.co.jp
URL; <http://www.twaron.com/>

Category:

- A3. Hazardous Substances
- B4. Higher Quality
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

TWARON®, a para-aramid fiber, possesses high strength and excellent heat resistance. It is drawing attention in the field of frictional materials for use in vehicle components, such as disc pads, brake linings and in clutch facings as a substitute for asbestos.



Products/Model :
Twaron® in brake pads and linings

Eco-materials No.045

Polymers

S-Lec Solar Control Film / S-Lec Sound & Solar Film

S-Lec Solar Control Film / S-Lec Sound & Solar Film

Sekisui Chemical Co., Ltd.

2-3-17 Toranomon, Minato-ku, Tokyo, 105-0001 Japan

Tel; Fax;

E-mail; kankyo@sekisui.jp

URL; <http://www.sekisui.co.jp/>

Category:

- A1. Global Warming
- B5. Energy Saving

This product (SCF) is used by being sandwiched with 2 sheets of glass pane to become laminated glass. Laminated glass has nice performances like penetration resistance performance, UV ray cut-off performance and so on. Thanks to these excellent performances, laminated glass has been used on both automotive application (windscreen, sidelite, backlite and roofite) and building application (window and partition) for safety, security and comfort purpose in the world. Infrared ray cut-off fine particles are finely dispersed in this product. Thanks to this IR cut-off fine particle, laminated glass with SCF can effectively prevent undesirable heat ray (IR ray) from entering inside. In case of automotive application for instance, steering temperature inside the vehicle cabin with SCF windscreen is around 10degree Celsius lower than that with normal windscreen during summer time parking. This temperature reduction can contribute to lowering air conditioning load and improving fuel consumption efficiency. Brother product of SCF is S-LecR Sound & Solar Film (SSF). Addition to the heat energy cut-off performance of SCF, noise reduction performance can be enjoyed with SSF laminated glass.



Eco-materials No.046

Polymers

Coating Material

SUMIRESIN EXCEL[®] CRC wafer coating material

Sumitomo Bakelite Co., Ltd.

Tennosu Parkside Bidg., 2-5-8, Higashishinagawa, Shinagawa-ku, Tokyo, 140-0002 Japan

Tel; 81-3-5462-3472 Fax;

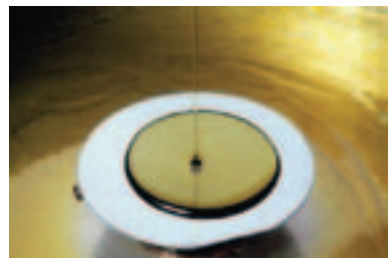
E-mail;

URL; <http://www.sumibe.co.jp/index.html>

Category:

- A3. Hazardous Substances
- B3. Resource Saving
- B5. Energy Saving
- C2. Material and Components Production

Due to the rapid increase in semiconductor memory capacity and demand for high-speed compatibility, circuit widths have narrowed and demands for reliability have become ever more exacting. To meet these demands, Sumitomo Bakelite has developed the CRC-8000 series of positive-type photosensitive wafer coating resins. This new series enables the use of alkaline aqueous solution as developing fluid and pure water as rinse fluid, eliminating the need for semiconductor manufacturers' use of special solutions. Furthermore, a new use for the series has been developed as an alternative to the traditional plastic sealing of certain wafer-level packages, thus enabling energy conservation by reducing the number of semiconductor manufacturing processes.



Eco-materials No.047

Polymers

epoxy resin molding material

SUMIKON® EME epoxy molding compound for semiconductors

Sumitomo Bakelite Co., Ltd.

Tennosu Parkside Bidg., 2-5-8, Higashishinagawa, Shinagawa-ku, Tokyo, 140-0002 Japan

Tel; 81-3-5462-3472 Fax;

E-mail;

URL; <http://www.sumibe.co.jp/index.html>

Category:

- A3. Hazardous Substances
- B4. Higher Quality
- C2. Material and Components Production

Sumitomo Bakelite has developed an epoxy resin forming material for semiconductor sealing that uses no bromine- or antimony-based flame retardants with substantial impact on the environment and is compatible with lead-free solder mounting. Using a newly developed epoxy resin with superior combustion resistance, Sumitomo Bakelite has developed and begun marketing the SUMIKON® EME-G700 series for high-reliability applications as well as the SUMIKON® EME-G600 and EME-G500 series for general-purpose packaging. Moreover, we have launched the SUMIKON® EME-E series of products specially designed for discrete applications. Leveraging our material design technologies for environmental impact reduction, we strive to reduce the burden on the environment by offering a green product range that covers leading-edge semiconductor packaging through general-purpose packaging.



Eco-materials No.048

Natural Materials

Wide cotton fabrics

BREVANO ECO: Anti-flaming, antistatic fabric with ecology-specs

KURABO INDUSTRIES LTD.

4-31, 2-CHOME, KYUTARO-MACHI CHUO-KU, OSAKA,

541-8581 JAPAN

Tel; 81-6-6266-5295 Fax; 81-6-6266-5539

E-mail; uniform_sect@kurabo.co.jp

URL; <http://www.kurabo.co.jp/>

Category:

- A4. Waste
- B1. Recyclability
- B3. Resource Saving
- B7. Usage of Recycled Materials
- C2. Material and Components Production

Fabric blended with excellent flameproof acrylic-based fiber, with unused cotton generated during spinning process accounting for 10% of total material.

- Having brilliant anti-flaming property, and being equipped with self-extinguishing function. LOI (limiting oxygen index) 29 to 32.
- Hard-to-dissolve, compared to general 100% synthetic fiber.
- Excellent in antistatic property.
- Refreshing and easy-to-wear, due to its excellent sweat absorption.
- Almost lint-free.
- Good coloring, hard-to-fade-out.
- Product that has acquired "eco-mark", only one environmental label in Japan.



Products/Model :
combustion test

Eco-materials No.049

Natural Materials

Wide cotton fabrics

Bio Nature: Eco-oriented soil-returnable fabric

KURABO INDUSTRIES LTD.

4-31, 2-CHOME, KYUTARO-MACHI CHUO-KU, OSAKA,
541-8581 JAPAN

Tel; 81-6-6266-5295 Fax; 81-6-6266-5539

E-mail; uniform_sect@kurabo.co.jp

URL; <http://www.kurabo.co.jp/>

Category:

- A1. Global Warming
- A4. Waste
- B5. Energy Saving
- C1. Materials Extraction
- C6. End-of-Life

A brand-new polyester and cotton mixed fabric using hydrolyzable, biodegradable polyester of DUPONT's "Biomax". When Bio Nature is left for long time in a water-rich environment with appropriate temperature and lots of microorganism, it eventually turns into water and carbon dioxide, as the result of biodegradation, after passing through the process of hydrolysis. As the process of biodegradation is very slow, it will not adversely affect the animal or plant. The amount of carbon dioxide emitted from burning this fabric is less, compared to the emitted amount when burning general fabrics, and combustion calorie is also low. It is also proved that the ash does not contain any harmful substance. The fabric will hardly deteriorate in ordinary use.



Products/Model :

fabrics buried in the ground for ten months

Eco-materials No.050

Natural Materials

Fabrics

GREENPET: PET bottle-based polyester & plant fiber combined fabric

KURABO INDUSTRIES LTD.

4-31, 2-CHOME, KYUTARO-MACHI CHUO-KU, OSAKA,
541-8581 JAPAN

Tel; 81-6-6266-5295 Fax; 81-6-6266-5539

E-mail; uniform_sect@kurabo.co.jp

URL; <http://www.kurabo.co.jp/>

Category:

- A4. Waste
- B1. Recyclability
- B7. Usage of Recycled Materials
- C1. Materials Extraction
- C4. Product Manufactures

Combined fabric comprising natural fiber carded with Kurabo's unique technologies, GETTOU (a kind of ginger), bamboo, kenaf, hemp, and polyester, re-using plastic bottles. Product that has acquired "eco-mark", only one environmental label in Japan.



Products/Model :

logo

Eco-materials No.051

Natural Materials

Textile mill products, n.e.c.

Industrial Hemp

Hemp Products Spread Association

2-19-15-611 Shibuya, Shibuya-ku, Tokyo, 150-0002 Japan

Tel; 81-3-5466-8683 Fax; 81-3-3797-4758

E-mail; hpsa@partie.net

URL; <http://www.partie.net/hpsa/>

Category:

- A1. Global Warming
- B1. Recyclability
- B3. Resource Saving
- C1. Materials Extraction
- C6. End-of-Life

The hemp plant is harvested for its fibers, core fibers, seed, seed meal and seed oil. Hemp is a distinct variety of the plant species *cannabis sativa* L. Due to the similar leaf shape, hemp is frequently confused with marijuana. Although both plants are from the species *cannabis*, hemp contains virtually no THC (delta-9-tetrahydrocannabinol), the active ingredient in marijuana. Hemp cannot be used as a drug because it produces virtually no THC (less than 1%), where marijuana produces between 5 – 20 % THC. Industrial hemp has the following features. 1)Recyclable resources. 2)Growth is early. It is called that it grasses for 100 days. 3)The hemp plant do not use agricultural chemicals. 4)We can raise the industrial hemp all over the world. 5)Hemp is a plant to be able to do about 25000 kinds of general merchandise. The fiber: It can do clothes, the rope, the string, and paper. Core fiber: Construction materials, Charcoal, Plastic sub-raw material, Fuel, Shiwara for animal Seed: Food, cosmetics, paints, and lubricant Leaf: Fertilizer and fodder, Flower: Medicine



Products/Model :
Industrial hemp

Eco-materials No.052

Natural Materials

Chemicals and allied products

"Hinokitiol" extracted from the waste wood of Aomori HIBA

Osaka Organic Chemical Ind., Ltd.

18-8 Katayama-Cho Kashiwara City Osaka 582-0020 Japan

Tel; 81-729-78-6265 Fax; 81-729-77-7294

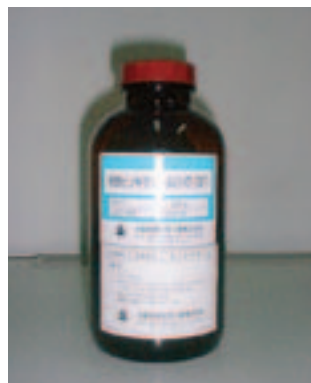
E-mail; yasuhiko_morita@ooc.co.jp

URL; <http://www.ooc.co.jp>

Category:

- A4. Waste
- B1. Recyclability
- B6. Environmental Purification
- C2. Material and Components Production
- C5. Product Use, Maintenance and Repair

"Hinokitiol" is a unique natural substance that has a seven-member ring structure. It is contained at a ratio of 2% in the Aomori HIBA oil extracted from the waste-wood produced by the sawing of Aomori HIBA. It has been confirmed that "Hinokitiol" has various physiological activities (for example, anti-inflammatory effect, insecticide activity and antitumor activity), as well as antimicrobial activity in wide areas. Our company developed an efficient manufacturing method to recover "Hinokitiol" selectively and to refine it. The starting material is a large amount of distillate water that is produced as a by-product in the extraction process of Aomori HIBA oil. At present, "Hinokitiol" is widely used as the hair tonic, the additive of toothpaste, and the preservative of cosmetic and food. In the near future, further application is expected as an Eco-material in the area of sanitation, medical care and agriculture.



Products/Model :
Hinokitiol

Eco-materials No.053

Natural Materials

Industrial plastic products

Non-burnable bioplastics for PC and mobile phones

NEC Corporation

7-1, Shiba 5 cho-me., Minato-ku, Tokyo, 108-0014 Japan

Tel; 81-3-3798-6617 Fax; 81-3-3798-9186

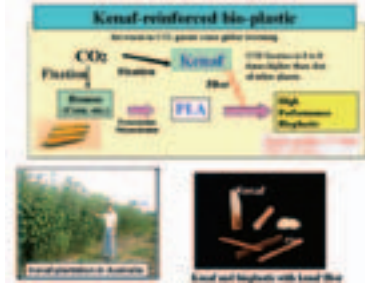
E-mail;

URL; <http://www.nec.co.jp/>

Category:

- A3. Hazardous Substances
- A5. Resource Consumption
- B1. Recyclability
- C1. Materials Extraction
- C2. Material and Components Production

The bioplastics used until now lacked strength and heat resistance and had insufficient flame retardancy characteristics. NEC's bioplastic material, in contrast, is both strong and highly heat resistant due to the addition of kenaf, which is also very effective against global warming. NEC has developed a flame-retardant bioplastic (polylactic-acid-based) with superior flame resistance by using safe inorganic endothermic materials, thus eliminating the use of hazardous flame retardants. NEC has already introduced this bioplastics for PCs and will for mobile phones.



Products/Model :

Structure of Bio-plastics

Eco-materials No.054

Foams

Rigid foamed plastic plates

Freon-gas-free sophisticated phenolic foam insulation

ASAHI KASEI CONSTRUCTION MATERIALS CORPORATION

2-12-7, Higashi-Shinbashi, Minato-ku, Tokyo, 105-0021 Japan

Tel; 81-3-5473-5321 Fax; 81-3-5473-5285

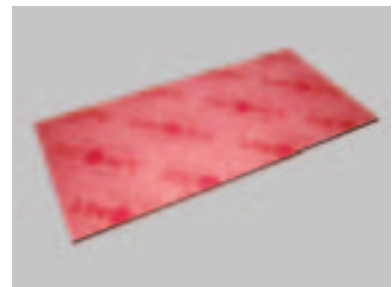
E-mail;

URL; <http://www.asahikasei-kenzai.com>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

The foaming technology was accomplished by the use of combustible hydrocarbon system gas securing the flame resistance of the product. Due to no use of Freon gas as a foaming gas at all, thus it contributes to prevention of destruction of ozone layer and global warming. Furthermore, we realized high heat insulation performance, which is well over that of the conventional products (by 1.5-2 times). It is the product with long-lasting adiabacity, significantly administering to high athermalize (energy-saving) of the structures.



Products/Model :

NEOMA® FOAM

Eco-materials No.055

Foams

Foamed plastic products, rigid

"Foamlite Eco." HFC free spray applied polyurethane foam

BASF INOAC polyurethanes Ltd.

1-196 Hongudo Kawata Shinshiro Aichi 441-1347 Japan

Tel; 81-536-23-5544 Fax; 81-536-23-4825

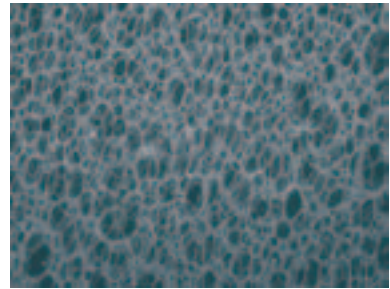
E-mail; Hiroaki.Nishimura@basf-inoac-polyurethanes.co.jp

URL; <http://www.bip-jp.com>

Category:

- A1. Global Warming
- B5. Energy Saving

"Foamlite Eco." is HFC-free spray-applied rigid polyurethane foam for thermal insulation. Spray foam system in Japan has been using HFC as blowing agent generally. Since HFC has high GWP, HFC-free spray system has been required from a viewpoint of global warming prevention. Under such circumstance, we developed "Foamlite Eco." which use water and liquid (or super-critical) CO₂ as blowing agents. This system has a lot of characteristics, such as good thermal conductivity, inframeability and processability etc.



Eco-materials No.056

Ceramics and Glass

Optical glass materials, including ones for glasses

Optical glass (Eco-glass) without harmful lead & arsenic

NIKON CORPORATION

Fuji Bldg., 2-3, Marunouchi 3-chome, Chiyoda-ku, Tokyo,

100-8331 Japan

Tel; 81-3-3214-5311 Fax;

E-mail;

URL; <https://www.nikon.co.jp>

Category:

- A3. Hazardous Substances
- A4. Waste
- C2. Material and Components Production
- C3. Design and Material selection
- C4. Product Manufactures

There are more than 100 types of optical glass and, in the past, NIKON used huge amounts of lead as a primary ingredient for about half of these optical glasses, while a small amount of arsenic was used in most types. These two elements have highest risk of damaging to the environment among all of ingredients used for optical glass. However, we have now developed almost full types of optical glass, being referred to Eco-glass, without using these two elements. We have secured optical performance solely with Eco-glass for most optical apparatus through appropriate optical design.



Products/Model :

Lenses and prisms made with Eco-glass

Eco-materials No.057

Ceramics and Glass

Cement

Ecocement made from municipal incineration ash

Taiheiyo Cement Corporation

St.Luke's Tower, 8-1, Akashi-cho, Chuo-ku, Tokyo, 104-8518 Japan

Tel; 81-3-6226-9088 Fax; 81-3-6226-9173

E-mail; ecocement@taiheiyo-cement.co.jp

URL; <http://www.taiheiyo-cement.co.jp/>

Category:

- A3. Hazardous Substances
- A4. Waste
- B1. Recyclability
- B6. Environmental Purification
- C4. Product Manufactures

Municipal incineration ash is often sent to land-fill, raising concerns that its heavy metal content could cause environmental damage. Ecocement recycles this municipal incineration ash as a raw material. Harmful substances in the ash are broken down and detoxified and heavy metals are reclaimed for recycling. Ecocement reduces the amount of ash sent to land-fill, saves resources and makes a major contribution to recycling.



Products/Model :
ECOCEMENT

Eco-materials No.058

Ceramics and Glass

Cement products

ST-coat containing the photocatalytic titanium dioxide

Taiheiyo Cement Corporation

St.Luke's Tower, 8-1, Akashi-cho, Chuo-ku, Tokyo, 104-8518 Japan

Tel; 81-3-6226-9088 Fax; 81-3-6226-9173

E-mail; shuuichi_iyama@taiheiyo-cement.co.jp

URL; <http://www.taiheiyo-cement.co.jp/>

Category:

- A2. Air Pollution
- B2. Longevity
- B3. Resource Saving
- B5. Energy Saving
- B6. Environmental Purification

ST-coat is a cement-type painting material that contains the photocatalytic titanium dioxide (TiO₂). When activated by ultra violet radiation in light, it decomposes NO_x and SO_x gases exhausted by automobiles and factories into harmless products. Because photocatalyst decomposes organic substances such as tar, ST-coat also has anti-fouling properties. In addition, it can prevent fungal growth so that no fungal attachment can be found on painted surfaces. With a proper proportion of aggregate and admixtures etc. ST-coat can be effectively painted onto desired surfaces by either using a roller or spray device. ST-coat excels in weather resistance. It does not crack, detach or dry out.



Products/Model :
Painting of ST-coat

Eco-materials No.059

Ceramics and Glass

Cement

Environment-conscious porous concrete

Kajima Corporation

3-7-1 Nishi-Sinjuku Sinjuku-Ku Tokyo, 163-1029 Japan

Tel; 81-3-5321-7322 Fax; 81-3-5321-7328

E-mail; env-act@ml.kajima.com

URL; <http://www.kajima.co.jp/prof/environment/index.html>

Category:

- B6. Environmental Purification

Environment conscious construction method is recently required for bank protection work. Porous concrete has been developed to be a material for bank protection to content both strengthening and environmental functions. The void size of this environment-conscious porous concrete (maximum diameter size of inscribed circle: 14mm) is about double of that of conventional porous concrete, which enables various plants and animals to live and cheap soil filling materials to be used. In spite of its large void size, its compressive strength keeps 10N/mm², which is necessary condition for porous concrete bank. This product can be made from aggregate (5~40 mm) from crushed concrete. Its construction cost is reduced by operating main process within construction site. Machines, admixture and method for quality control specially provided for porous concrete realized efficient and large-scale construction.



Products/Model :

Environment-conscious porous concrete

Eco-materials No.060

Ceramics and Glass

Building brick

Crystal Clay CLB-series: ceramic quality blocks

CRYSTAL CLAY CORP.

4-11-4 Roppongi, Minato-ku, Tokyo, 106-0032 Japan

Tel; 81-3-5775-0021 Fax; 81-3-5775-0024

E-mail; sokato@crystalclay.co.jp

URL; <http://www.crystalclay.co.jp/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B5. Energy Saving
- B7. Usage of Recycled Materials
- C4. Product Manufactures

<Environment-friendly>

- The product is resource-saving goods, in which the amount of clay was suppressed by the use of 70% of the waste glass.
- By using the waste glass as the raw material, the baking at a low temperature is realized, and thereby, the CO₂ discharge can be reduced in the manufacturing process.

<Performance>

- On account of its high strength, the blocks are usable at the car-passing zone.
- Because of the property of burned products, the discoloration is small for a long period, and the changes in other properties are also small.
- A large sliding friction makes it hard to slip down.



Products/Model :

Crystalclay CLB Series

Eco-materials No.061

Ceramics and Glass

Building brick

Crystal Cray CT2-series: water- permeable / -retentive blocks

CRYSTAL CLAY CORP.

4-11-4 Roppongi, Minato-ku, Tokyo, 106-0032 Japan

Tel; 81-3-5775-0021 Fax; 81-3-5775-0024

E-mail; sokato@crystalclay.co.jp

URL; <http://www.crystalclay.co.jp/>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B5. Energy Saving
- B7. Usage of Recycled Materials
- C4. Product Manufactures

<Environment-friendly>

- The product is resource-saving goods that suppressed the amount of clay by using the mixture of the glass waste (30%) and the ceramic waste (65%).
- By using the waste glass as the raw material, the baking at a low temperature is realized, and thereby, the CO₂ discharge can be reduced in the manufacturing process.

<Performance>

- The product is excellent in the following properties: water-permeability, water-retention, lowering of the surface temperature of the road, sound absorption, and heat insulation.
- On account of its high strength, the blocks are usable at the car-passing zone.
- Because of the property of burned products, the discoloration is small for a long period, and the changes in other properties are also small.
- A large sliding friction makes it hard to slip down.



Products/Model :
Crystalclay CT2 Series

Eco-materials No.062

Ceramics and Glass

Tile

Crystal Clay FT-series: stoneware quality tiles

CRYSTAL CLAY CORP.

4-11-4 Roppongi, Minato-ku, Tokyo, 106-0032 Japan

Tel; 81-3-5775-0021 Fax; 81-3-5775-0024

E-mail; sokato@crystalclay.co.jp

URL; <http://www.crystalclay.co.jp/>

Category:

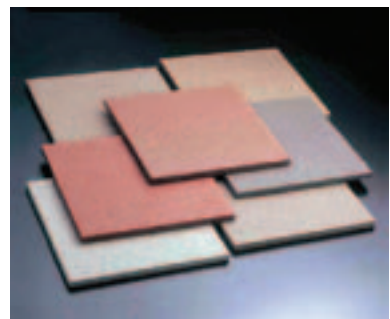
- A1. Global Warming
- B3. Resource Saving
- B5. Energy Saving
- B7. Usage of Recycled Materials
- C4. Product Manufactures

<Environment-friendly>

- The product is resource-saving goods, in which the amount of clay was suppressed by the use of 60% of the waste glass.
- By using the waste glass as the raw material, the baking at a low temperature is realized, and thereby, the CO₂ discharge can be reduced by 32% in the manufacturing process.

<Performance>

- The goods are excellent in the durability.
- A large sliding friction makes it hard to slip down.
- Because of the property of burned products, the discoloration is small for a long period, and the changes in other properties are also small.



Products/Model :
Crystalclay FT Series

Eco-materials No.063

Ceramics and Glass

Tile

Crystal Clay FP-series: porcelain quality tiles

CRYSTAL CLAY CORP.

4-11-4 Roppongi, Minato-ku, Tokyo, 106-0032 Japan

Tel; 81-3-5775-0021 Fax; 81-3-5775-0024

E-mail; sokato@crystalclay.co.jp

URL; <http://www.crystalclay.co.jp/>

Category:

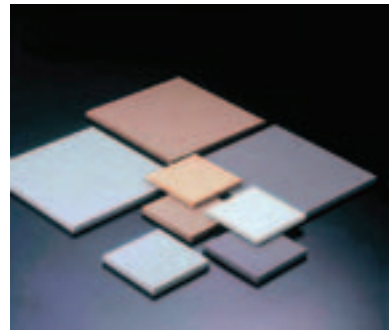
- A1. Global Warming
- B3. Resource Saving
- B5. Energy Saving
- B7. Usage of Recycled Materials
- C4. Product Manufactures

<Environment-friendly>

- The product is resource-saving goods, in which the amount of clay was suppressed by the use of 60% of the waste glass.
- By using the waste glass as the raw material, the baking at a low temperature is realized, and thereby, the CO₂ discharge can be reduced in the manufacturing process.

<Performance>

- The goods are excellent in the durability.
- A large sliding friction makes it hard to slip down.
- Because of the property of burned products, the discoloration is small for a long period, and the changes in other properties are also small.



Products/Model :
Crystalclay FP Series

Eco-materials No.064

Ceramics and Glass

Artificial lightweight aggregate

Substitution of aggregate made from coal ash for natural aggregate

Kajima Corporation

2-7, Motoakasaka 1-chome, Minato-ku, Tokyo, 107-8388 Japan

Tel; 81-3-3404-3311 Fax; 81-3-3470-1444

E-mail;

URL; <http://www.kajima.co.jp/>

Category:

- A4. Waste
- A5. Resource Consumption
- B3. Resource Saving
- B4. Higher Quality
- C3. Design and Material selection

Technologies to deal with coal ash discharged from thermal power plants are important. Jlite was developed as an artificial aggregate using shale powder, which melts at approximately 1100oc (requiring less energy) and coal ash, making use of the lightweight characteristic of the aggregate in concrete. As a result, the development of a concrete aggregate using coal ash in large quantity realized the expectation of manufacturing capability of the artificial aggregate on existing artificial lightweight aggregate manufacturing plant. Jlite was comparable to JIS A 5002 specifications on the artificial lightweight aggregate.



Products/Model :
Jlite

Eco-materials No.065

Ceramics and Glass

Plug

Long Reach Small Spark Plug-Iridium Type

NGK SPARK PLUG CO., LTD.

14-18, Takatsuji-cho, Mizuho-ku, Nagoya-shi, Aichi, 467-8525 Japan

Tel; 81-52-872-5980 Fax; 81-52-872-5942

E-mail; eco@mg.ngkntk.co.jp

URL; <http://www.ngkntk.co.jp/menu.html>

Category:

- A1. Global Warming
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

This is a small-size plug aiming size and weight reduction and cooling function improvement (high output) in an engine. By using this plug, engine performance improvement such as high output and anti-knock performance has realized. In addition, the designing margin for cylinder head increased.



Eco-materials No.066

Ceramics and Glass

Sensor

Hydrogen Leak Monitoring Sensor for Fuel Cell Application

NGK SPARK PLUG CO., LTD.

14-18, Takatsuji-cho, Mizuho-ku, Nagoya-shi, Aichi, 467-8525 Japan

Tel; 81-52-872-5980 Fax; 81-52-872-5942

E-mail; eco@mg.ngkntk.co.jp

URL; <http://www.ngkntk.co.jp/menu.html>

Category:

- A1. Global Warming
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

This is a hydrogen leak monitoring sensor for fuel cells. By using this sensor, safer operation of fuel cell system can be maintained. Because of functions of monitoring of hydrogen gas and quick response to low-concentration gas, a safe fuel cell design can be achieved. This sensor is expected to be widely used for fuel-cell vehicles and home fuel cells.



Eco-materials No.067

Ceramics and Glass

Soil conditioner

KATATUMURI The foudation improvement material

BAIO WORTH Co., Ltd,

350-SODAI MINO-CITY Prf. GIHU 501-3714 JAPAN

Tel; 81-575-33-2714 Fax; 81-575-33-2612

E-mail; s-ogawa@ogawakenzai-mino.co.jp

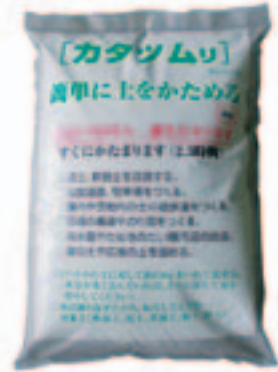
URL;

Category:

- A4. Waste
- B1. Recyclability
- B6. Environmental Purification
- B7. Usage of Recycled Materials
- C6. End-of-Life

The object for the character of the improvement-it burries and they are an object for return, and the improvement material with it covers and which it used for hardening. It is improvement material for carrying out effective use of the muddy soil, which comes out of pond, river, lake, construction site, etc.,. The weak soil, and surplus soil. It solidifies enough in the amount of addition of ten to about twenty percent of the soil. Moreover, incinineral ashes, coal ashes, recycling gypsum, etc, of paper manufacture sludge are the main ingredient of this product of this itself is a recycled product. And 6 chromium is not included as a feature of this product.

-PH also becomes neutrality immediately again.(non-cement)



Products/Model :

This is a bag of 4Kg, others 10kg, 20kg, 1t.

Eco-materials No.068

Composites

Particle board, Glued laminated timber

New timber made from architectural waste of woods

Sekisui Chemica Co., Ltd. Housing Company
URBAN INFRASTRUCTURE & ENVIRONMENTAL PRODUCTS HEADQUAR

2-2, Kamichoshi-cho, Kamitoba, Minami-ku, Kyoto, 601-8105 Japan

Tel; 81-75-662-8525 Fax; 81-75-662-8585

E-mail; karukaya001@sekisui.jp

URL; <http://www.sekisui.co.jp/> <http://www.mmc.co.jp>

Category:

- A4. Waste
- B1. Recyclability
- C2. Material and Components Production

This product is a timber for pillars and beams made from architectural waste of woods. The current waste recycling rate is about 40%, which means that about 60% of the waste is burned or used for landfill. Using this timber could increase the recycling rate of architectural waste of woods.



Products/Model :

Rifare REW

Eco-materials No.069

Composites

Eslon Neo-Lumber FFU

Eslon Neo-Lumber FFU

Sekisui Chemical Co., Ltd.

2-3-17 Toranomon, Minato-ku, Tokyo, 105-0001 Japan

Tel; Fax;

E-mail; kankyo@sekisui.jp

URL; <http://www.sekisui.co.jp/>

Category:

- A3. Hazardous Substances
- A5. Resource Consumption
- B2. Longevity
- B3. Resource Saving
- C5. Product Use, Maintenance and Repair

Eslon Neo Lumber FFU (Fiber-reinforced Foamed Urethane) is an anti-corrosive and light-weight material that is made with formed urethane reinforced by long glass fiber strand. It is a very durable, excellent workability just like the wood, and great water resistance with much less maintenance. Therefore, Eslon Neo Lumber has been gaining a great amount of attention as to replace many conventional materials such as railroad sleepers.

Ecological aspects; • Help preserving forest. • LCC(Life Cycle Cost) can be reduced because of less maintenance and its excellent durability. • Can be reused by repair. • Can be recycled from grinding-up granules. • Environmental impact is much less because of no termite repellents and preservatives.

Applications; • Railroad sleepers. • Deodorizing lids for water treatment facility. • Anchor walls for civil engineering. • Water mills. • Balconies. • Flooring boards. • Supporter for floor. • Bulkheads. • Track beds.



Eco-materials No.070

Composites

Compounding plastic materials

ECOM E series semiconductor encapsulation materials

Matsushita Electric Works, Ltd.

1048 Kadoma, Kadoma City, Osaka, 571-8686 Japan

Tel; 81-6-6908-1131 Fax;

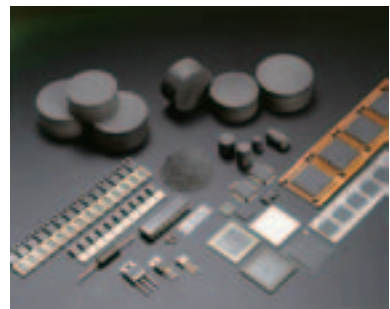
E-mail;

URL; <http://www.mew.co.jp>

Category:

- A2. Air Pollution
- A3. Hazardous Substances
- A4. Waste
- C2. Material and Components Production
- C3. Design and Material selection

ECOM E series semiconductor encapsulation materials do not contain halogen or antimony, which impact the environment, and have UL 94V-0 flame retardancy. They also support lead-free soldering (soldering temperature: approx. 260 degrees C). Therefore, IC and LSI industries have adopted this series.



Products/Model :

Part No.: CV8210, CV8710, etc.

Eco-materials No.071

Composites

Iron Industries

Weather Act Treatment

Sumitomo Metal Industries, Ltd.

1-8-11 Harumi Chuo-ku, Tokyo, 104-6111 Japan

Tel; 81-3-4416-6111 Fax; 81-3-4416-6793

E-mail; chikyu-kan@sumitomometals.co.jp

URL; <http://www.sumitomometals.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B2. Longevity
- B3. Resource Saving
- C5. Product Use, Maintenance and Repair

Weather Act treatment is a surface treatment technology that generates an early layer of rust with protective properties against atmospheric corrosion on the weather-resistant steel surfaces used in land-based steel structures. The application of this technology contributes to the minimization of maintenance by generating an early protective layer of rust that inhibits corrosion, inhibiting loose scale and flaky rust, improving halotolerance, resolving problems observed when weather-resistant steel is used exposed and expanding the usable range of weather-resistant steel.



Products/Model :

Weather-act Surface Treatment

Eco-materials No.072

Composites

Printed wiring board materials

Halogen-free Glass Epoxy Multi-layer Materials

Matsushita Electric Works, Ltd.

1048 Kadoma, Kadoma City, Osaka, 571-8686 Japan

Tel; 81-6-6908-1131 Fax;

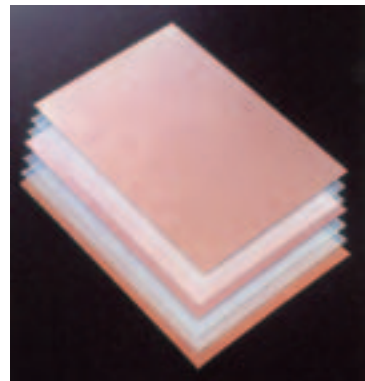
E-mail;

URL; <http://www.mew.co.jp>

Category:

- A2. Air Pollution
- A3. Hazardous Substances
- A4. Waste
- C2. Material and Components Production
- C3. Design and Material selection

This product has flame retardancy of UL 94V-0 without bromine, which may generate dioxin when incinerated, or antimony, which is listed as a monitoring-required water pollutant. The heat resistance and continuity reliability are excellent, and other performances are equivalent to general FR-4. Since this product supports lead-free soldering, it is used in digital home appliances and communication equipment around the world.



Products/Model :

Core: R-1566, Prepreg: R-1551

Eco-materials No.073

Composites

Parts of driving, transmission and operating units

Development of Nonwoven friction material

Dynax Corporation

1053-2, Kamiosatsu, Chitose-City, Hokkaido, 066-8585 Japan
 Tel; 81-123-24-2135 Fax; 81-123-24-2893
 E-mail; information@mail.dxj.co.jp
 URL; <http://www.dxj.co.jp>

Category:

- B2. Longevity
- B4. Higher Quality
- C2. Material and Components Production
- C3. Design and Material selection

Slip Lock-up system of torque converter is one of the important mechanisms in Automatic Transmission that contribute to increase fuel efficiency. Wet type friction materials for Slip Lock-up system have to achieve following requirements: 1. Endure under high temperature and/or high pressure condition, 2. Good and stable performance over its life, 3. Robustness with any conditions and/or environments Dynax has developed Slip Lock-up clutch materials that meet above requirements by using long fiber length synthetic fiber. This synthetic fiber has high strength and high heat resistance that is similar synthetic fiber used for bulletproof vest and fire prevention close for fire fighters.



Eco-materials No.074

Others

Special wood products

Greenflo Flooring System - Recycled Wood Flooring System

LHT Holdings Limited

27 Sungei Kadut Street 1 Singapore 72935
 Tel; +65 62697890 Fax; +65 63674907
 E-mail; terence@lht.com.sg
 URL; <http://www.greenflo.com>

Category:

- B3. Resource Saving
- B4. Higher Quality
- B1. Recyclability
- B7. Usage of Recycled Materials
- B2. Longevity

Greenflo Flooring System is an environmentally friendly and cost-effective flooring system that is made of 100% recycled Technical Wood. Selection from Original Series is 100% made of recycled Technical Wood and Premium and Classic Series are made of 85% recycled Technical Wood topped with solid wood veneer. The use of solid Technical Wood as foundation enhances heat and water resistance and 5 layers UV Coating provides better performance against scratches and stains. Greenflo is also tested and proven to achieve E1 Standard on formaldehyde emission guarantees a green and safe living environment.



Products/Model :

Premium, Classic, Original

Eco-materials No.075

Others

Special wood products

Greenflo Door System - A Recycled Technical Wood Door System

LHT Holdings Limited

27 Sungei Kadut Street 1 Singapore 72935

Tel; +65 62697890 Fax; +65 63674907

E-mail; terence@lht.com.sg

URL; <http://www.lht.com.sg>

Category:

- B3. Resource Saving
- B1. Recyclability
- B4. Higher Quality
- B7. Usage of Recycled Materials
- B2. Longevity

Greenflo Door System is made of high density recycled Technical Wood topped with specially designed molded door skin and solid wood veneer. This is a combination of workmanship, experience and latest technology. Each door is specially engineered by professional technician and undergoes a series of stringent quality inspection prior to delivery. Greenflo Door System comes into 3 different category.

- 1) Greenflo Fire Resistance Door
- 2) Greenflo Moulded Door
- 3) Greenflo Engineered Flush Door



Products/Model :

Classic Series

Eco-materials No.076

Others

Special wood products

Technical Wood

LHT Holdings Limited

27 Sungei Kadut Street 1 Singapore 72935

Tel; +65 62697890 Fax; +65 63674907

E-mail; terence@lht.com.sg

URL; <http://www.lht.com.sg>

Category:

- B1. Recyclability
- B2. Longevity
- B3. Resource Saving
- B4. Higher Quality
- B7. Usage of Recycled Materials

Technical Wood is a 100% recycled wood made of original tropical hard wood fibers that undergo a high pressure and high temperature steaming process. Hence, the Technical Wood can be used for building, furnishing components and various industrials.

Major Performances:

- 1) 100% Environmentally Friendly
- 2) High Density & Low Moisture Content
- 3) Low Formaldehyde Emission
- 4) Resistance to Water & Fire
- 5) Strong Nail Holding Strength
- 6) Minimize Wastage & Storage Cost
- 7) Consstant Supply & Quality
- 8) Chemical & Pest Resistance
- 9) Less Thickness Swelling
- 10) Time & Product Cost Saving



Eco-materials No.077

Others

Alternative Fuel

SlurMix®: Eco-friendly, designed for steel and cement industry

AMITA CORPORATION

28 Sanban-cho, Chiyoda-ku, Tokyo, 102-0075 Japan

Tel; 81-3-5215-8255 Fax; 81-3-5215-8256

E-mail; info@amita-net.co.jp

URL; <http://www.amita-net.co.jp>

Category:

- A1. Global Warming
- A4. Waste
- A5. Resource Consumption
- B1. Recyclability
- B7. Usage of Recycled Materials

AMITA has developed an easy-to-handle auxiliary fuel called SlurMix for the steel and cement industry, made by compounding and homogenizing certain types of waste oils, oil-containing sludge and waste solvents, all by-products which previously could only be disposed through incineration. The residue remaining after combustion of SlurMix can be used as a raw material in manufacturing cement. SlurMix has about 4,500kcal/kg of calorific value so that it could be an alternative fuel of coal which leads reduction of green house gas emission and saving natural resources.

This means that SlurMix ultimately results in zero waste product- it realizes 100% recyclability.



Products/Model :

SlurMix®

Eco-materials No.078

Others

Carbon black

Tow Sheet Maintenance and reinforcement material for concrete

Nippon Steel Corporation

2-6-3, Otemachi, Chiyodaku, Tokyo, 100-0004 Japan

Tel; 81-3-3275-5144 Fax; 81-3-3275-5979

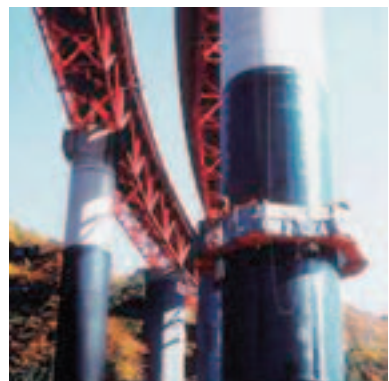
E-mail; kankyo@hq.nsc.co.jp

URL; <http://www0.nec.co.jp/kankyow/index.html>

Category:

- A4. Waste
- A5. Resource Consumption
- C5. Product Use, Maintenance and Repair
- B3. Resource Saving
- C6. End-of-Life

As many highways are increasingly aged, maintenance and repairing work are in great demand to expand or extend the life of structures. The "Tow Sheet Method" supplied by Nippon Steel and Nippon Steel Composite is widely used in repairing and reinforcement work where "Tow Sheet" formed into sheet of carbon-fiber is affixed over the surface of concrete with resin adhesive. "Tow Sheet" work is easy and resists rust, thus contributing to the extended life of facilities and buildings. Nippon Steel looks forward to reducing the amount of construction waste and further to global environmental preservation through the promoted use of its "Tow Sheet".



Eco-materials No.079

Others

Plastic products, n.e.c.

SCF(Super Clean Foam), sealing material for electronics

Nitto Denko Corporation

1-1-2, Shimohozumi, Ibaraki, Osaka, 567-8680 Japan

Tel; 81-72-622-2981 Fax; 81-72-626-1505

E-mail;

URL; <http://www.nitto.co.jp>

Category:

- A3. Hazardous Substances
- B6. Environmental Purification
- B7. Usage of Recycled Materials
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

This is a halogen-free, phosphorous-free foam sealing material for electronics. Foam sealing material is what is put the gap for dust-proof, impingement protection, vibration isolation. Previously, halogen group flame retardants were used where high flame resistance(UL94HF-1) is required. SCF offers high flame resistance(UL94HF-1) without the use of harmful substances and also uses thermoplastic resin of high purity. The bubble diameter is as short as 80 micrometer, providing a downsized/weight-saving approach.



Products/Model :

SCF(Super Clean Foam)

Eco-materials No.080

Others

Parts, attachments and accessories of office, service industry and household machines

PURETECT Cloth-Coating Agent To Reduce Odor And VOC

HANITSU TRADE Co., Ltd.

Morikawa Bldg. 2F, 1-30-6, Nishigotanda, Shinagawa-ku, Tokyo,

141-0031 Japan

Tel; 81-3-5437-6721 Fax; 81-3-5437-6722

E-mail;

URL;

Category:

- A2. Air pollution
- A3. Hazardous Substances
- A4. Waste
- B5. Energy Saving
- B6. Environmental Purification

PURETECT decomposes and removes all kinds of odor in daily life including smells of smoke, pets and toilet. It can also deter the growth of mold and mites, thus creating comfortable living space. In newly-built houses and other buildings, VOCs (volatile organic compounds) emitted from petrochemical building materials, paints and adhesives sometimes cause such symptoms as headache, nausea, and allergy. PURETECT decomposes those VOCs and reduces their concentration. All you have to do is apply PURETECT coating to the wallcloth. Once applied, the coating effect will last for about 5 years in the kitchen and 10 years in the bedroom. You can feel safe in using PURETECT, as it's free of chemicals and other substances hazardous to the human body.



Products/Model :

PURETECT

2

Eco-components

- i Construction Components
- ii Electrical and Electronic Components
- iii Semiconductor Manufacturing Devices
- iv Machine Parts
- v Automobile Parts
- vi Others



Eco-components No.001

Construction Components

Prefabricated wooden buildings and structural members for housing

House construction panels made of glued cross wood.

AOMORI HOME COMPONENT CO., LTD

1-3, Yanagawa, Aburakawa, Aomori City, 038-0059 Japan

Tel; 81-17-788-6483 Fax; 81-17-788-6145

E-mail; info@aomori-home.co.jp

URL; <http://www.aomori-home.co.jp>

Category:

- A1. Global Warming
- B2. Longevity
- B4. Higher Quality
- C3. Design and Material selection

This product consists of patented structural panels for use in house construction. Houses are completed in no time by utilizing these panels for wall and ceiling material.

Global Warming: Thinned wood and lumber ends can be used for the fabrication of the Cedar Cross Panels. This technology therefore utilizes forest resources, and furthermore, contributes to the reduction of CO₂ which effects the environment.

High Efficiency: The free space inside the panels is very rot resistant. The Panels offer high-strength with over 60 years of proven durability and sufficient environmental capability.



Products/Model :

The Cedar Cross Panel 2480 x 625 x 90

Eco-components No.002

Construction Components

Interior and exterior building materials

Interior / exterior materials from reproduced AI / discarded glass

Obayashi Corporation, Technical Research Institute

640, Shimokiyoto 4-chome, Kiyoshe-shi, Tokyo, 204-8558 Japan

Tel; 81-424-95-1040 Fax; 81-424-95-1260

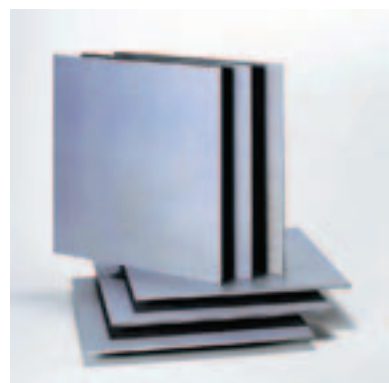
E-mail; mitani.hitofusa@obayashi.co.jp

URL; <http://www.obayashi.co.jp/>

Category:

- A4. Waste
- B1. Recyclability
- B3. Resource Saving
- B7. Usage of Recycled Materials
- C3. Design and Material selection

Alcelite is an interior and exterior finishing material that uses a glass balloon as the primary material. It is made from reproduced aluminum and discarded glass. Its raw materials include recycled products and, in addition, aluminum can be extracted through fusion by heating after use, allowing it to be re-used.



Products/Model :

ALCELITE G type

Eco-components No.003

Construction Components

Other ventilators and Dust collectors

Environmental preservation systems for tunnels and public highways

Matsushita Ecology Systems Co., Ltd.

4017 Shimonakata, Takaki-cho, Kasugai City, Aichi, 486-8522 Japan

Tel; 81-568-81-1666 Fax; 81-568-83-1112

E-mail;

URL; <http://panasonic.co.jp/mesc>

Category:

- A2. Air Pollution
- A3. Hazardous Substances
- B4. Higher Quality
- B6. Environmental Purification
- C3. Design and Material selection

We have contributed to the environmental preservation of local communities by providing ventilation systems for tunnels and public highways making the best use of our various technologies such as ventilation, air purification and control measurement for the preservation of comfortable road environment.

[Electrostatic Precipitator]

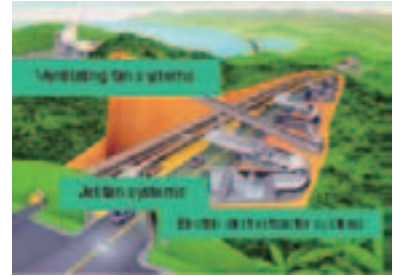
Catches dust floating in the air, especially soot emitted from diesel-engine vehicles, by static electricity in order to enhance visibility in tunnels.

[Ventilating Fans]

Expels polluted air from the tunnel and inhales air from outside. Capable of self-controlling ventilating force depending on the polluted level of the air in the tunnels.

[Jet Fans]

Hung from the tunnel ceiling at appropriate intervals and capable of ventilating air in the tunnel utilizing increased air pressure by the jet flow.



Products/Model :

Tunnel ventilating system in Vietnam

Eco-components No.004

Construction Components

Air-conditioning and housing related equipment

Energy Recovery Ventilator

Matsushita Ecology Systems Co., Ltd.

4017 Shimonakata, Takaki-cho, Kasugai City, Aichi, 486-8522 Japan

Tel; 81-568-81-1666 Fax; 81-568-83-1112

E-mail;

URL; <http://panasonic.co.jp/mesc>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving
- C3. Design and Material selection

This is a product to suit the need to "ventilate without losing temperature while air-conditioning," and used in buildings both for commercial and residential ventilation while air-conditioning is in operation. This contributes greatly to energy-conservation compared to other ventilating systems.

Product features are;

- (1) Industry No.1 heat recovery efficiency over 70%.
- (2) Industry's highest static pressure makes the product competitive with higher priced models, thus contributing to total cost reduction.
- (3) Compact design: Newly developed element cores make the body size 20% compact at average. We have been developed more than 30 years for the technologies for Energy Recovery Ventilator and obtained international recognition for its highest efficiency and performance reliability.



Products/Model :

Energy Recovery Ventilator Unit

Eco-components No.005

Electrical and Electronic Components

Primary batteries

NAS battery systems

Tokyo Electric Power Company

1-1-3 Uchisaiwai-cho Chiyoda-ku, Tokyo, 100-8560 Japan

Tel; 81-3-4216-1111 Fax; 81-3-4216-6338

E-mail; masaku.takafumi@tepco.co.jp

URL; <http://www.tepco.co.jp>

Category:

- A1. Global Warming
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

The NAS battery is an energy storage battery that uses sodium in the negative electrode, sulfur in the positive electrode, and solid electrolyte made from beta-alumina ceramics. It is a clean battery that has high energy density, high efficiency, and long life compared to lead-acid battery. This technology is primarily being introduced into factories, office buildings and sewage treatment facilities that wishing to economize their energy cost through load leveling, and into semiconductor plants and customers that need high-quality and highly reliable electric power.



Products/Model :
NAS battery system

Eco-components No.006

Semiconductor Manufacturing Devices

Parts, attachments and accessories of electronic equipment

Small & light-weight in-vehicle CD optical pickup equipped with hologram device

Victor Company of Japan, Ltd.

1644 Shimotsuruma, Yamato City, Kanagawa, 242-8514 Japan

Tel; 81-46-278-1707 Fax; 81-46-278-1785

E-mail;

URL; <http://www.jvc-victor.co.jp/english/global-e.html>

Category:

- A4. Waste
- B1. Recyclability
- B4. Higher Quality
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

In-vehicle CD reproduction pickup.

<Specifications>

- (1) Supports 4X reproduction
- (2) Operating temperature : -30 to 85 degrees C
- (3) Easy drive control due to light weight (9.6g)



Products/Model :
Pickup for car CD use "OPTIMA726"

Eco-components No.007

Semiconductor Manufacturing Devices

Semiconductor and IC measuring instruments

Intelligent Power Module

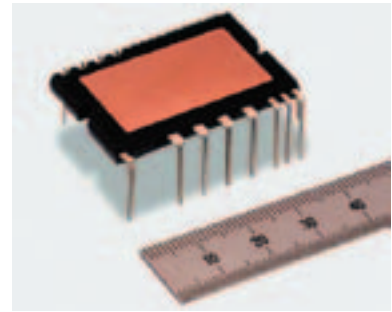
Mitsubishi Electric Corporation

2-2-3 Marunouchi, Chiyoda-ku, Tokyo, 100-8310 Japan
(after 07/Nov./2005 it will be changed to 2-7-3)
Tel; +81-3-3218-9024 Fax; +81-3-3218-2465
E-mail; eqd.eco@hq.melco.co.jp (eqd.eco@pj.MitsubishiElectric.co.jp (after 7/Nov./2005))
URL; <http://www.MitsubishiElectric.co.jp/corporate/eco/index.html>

Category:

- A3. Hazardous Substances
- A5. Resource Consumption
- B3. Resource Saving
- C3. Design and Material selection

1. New insulation package technology with high heat dissipation allows about 60% super-miniaturization compared to previous designs.
2. Uses completely lead-free solder for chip connections and terminal plating inside product.



Products/Model :

Dual-in-line Package Intelligent Power Module

Eco-components No.008

Semiconductor Manufacturing Devices

Semiconductor devices

V MAICOVICON Image sensor in consideration of energy saving

Semiconductor Company, Matsushita Electric Industrial Co., Ltd.

1 Kotari-yakemachi, Nagaokakyo City, Kyoto, 617-8520 Japan
Tel; 81-75-951-8151 Fax;
E-mail;
URL; <http://panasonic.co.jp/semicon/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

This VMAICOVICON Image-sensor is equipped with the following characteristics about Eco-Product.

[Low consumption electricity]

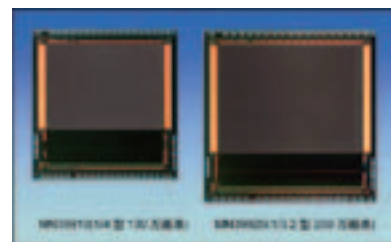
This VMAICOVICON Image-sensor is realized low consumption electricity of about 15% than CCD Image-sensor while having equal basic performances. As a result, we can take a movie for a long time and can contribute to reduction of energy.

[Resource saving]

As for the VMAICOVICON Image-sensor, production process is largely reduced for CCD Image-sensor. As a result, We can reduce resources and energy for production process.

[Miniturization]

We realized smallest 2.8um pixels Image-sensor for mobile cameras, and enabled miniaturization of a high-pixel camera set.



Products/Model :

1/4inch-1.3M / 1/3.2inch-2.0M V MAICOVICON

Eco-components No.009

Semiconductor Manufacturing Devices

Metal oxide semiconductor IC

Superior de-materialized LSI

FUJITSU LIMITED

4-1-1 Kamikodanaka, Nakahara-ku, Kawasaki-shi, Kanagawa,
211-8588 Japan
Tel; 81-44-754-3417 Fax; 81-44-754-3326
E-mail; ecobox@fujitsu.com
URL; <http://jp.fujitsu.com/about/csr/eco/>

Category:

- A3. Hazardous Substances
- B3. Resource Saving
- B5. Energy Saving
- C3. Design and Material selection
- C4. Product Manufactures

Materials: Decreased the number of parts from 3 pieces to 1 piece and reduced previous volume and weight by 90%. Achieved fewer space and lower cost of MPEG-2 advanced system for small size products such as notebook personal computers by equipping SDRAM into the same package.



Products/Model :

Encoder LSI MPEG2

Eco-components No.010

Semiconductor Manufacturing Devices

Metal oxide semiconductor IC

Low power System LSI for Digital HDTV

Semiconductor Company, Matsushita Electric Industrial Co., Ltd.

1 Kotari-yakemachi, Nagaokakyo City, Kyoto, 617-8520 Japan
Tel; 81-75-951-8151 Fax;
E-mail;
URL; <http://panasonic.co.jp/semicon/>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving

Newly developed data processing system makes it possible to realize the reduction from 4 to 2 of external data-memory chips in the chip-set of Digital TV system. (Reduces 30% of power consumption)

- Advanced architecture achieves low power consumption and increased global environmental protection.
- Realizes high quality picture and low price by the development of our original algorithm.
- Flexible enough to support worldwide Digital TV broadcast standards with just a simple change of processor software.
- Lead-free products.



Products/Model :

System LSI for Digital HDTV(MN2WS0025)

Eco-components No.011

Semiconductor Manufacturing Devices

Semiconductor IC

Energy Saving Semiconductor Manufacturing Devices

FUJITSU LIMITED

4-1-1 Kamikodanaka, Nakahara-ku, Kawasaki-shi, Kanagawa,
211-8588 Japan

Tel; 81-44-754-3417 Fax; 81-44-754-3326

E-mail; ecobox@fujitsu.com

URL; <http://jp.fujitsu.com/about/csr/eco/>

Category:

- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

Energy Saving: Improved environmentally related performance (comparing the electrical energy consumed by the LSI device in performing a certain specified volume of work) by 60% by adopting the most advanced 90nm CMOS technology. Improved environmentally related performance by the application of low K-dielectric membrane and shrinking the Poly width of Tr gate electrode.



Products/Model :

Microprocessor for highly efficient servers

Eco-components No.012

Semiconductor Manufacturing Devices

Semiconductor IC

Superior de-materialized and energy saving FRAM

FUJITSU LIMITED

4-1-1 Kamikodanaka, Nakahara-ku, Kawasaki-shi, Kanagawa,
211-8588 Japan

Tel; 81-44-754-3417 Fax; 81-44-754-3326

E-mail; ecobox@fujitsu.com

URL; <http://jp.fujitsu.com/about/csr/eco/>

Category:

- A3. Hazardous Substances
- B3. Resource Saving
- B5. Energy Saving
- C3. Design and Material selection
- C4. Product Manufactures

Materials: Used 54% of less material than predecessors by shrinking the size of the non-volatile high-induction memory cell used for backup.

Energy Saving: Reduced electrical consumption by 20% in comparison with BBSRAM, because a battery is not needed for data backup.



Products/Model :

MB85R256S

Eco-components No.013

Semiconductor Manufacturing Devices

Fixed capacitors

Low-profile Styling Functional Polymer Capacitor

FUJITSU MEDIA DEVICES LIMITED

Shin-yokohama Square Bldg. 14F, 2-3-12, Shin-Yokohama, Kohoku-ku, Yokohama-shi, Kanagawa, 222-0033 Japan
Tel; 81-45-475-6571 Fax; 81-45-475-6583
E-mail; sales@fmd.fujitsu.com
URL; <http://edevice.fujitsu.com/fmd/>

Category:

- A3. Hazardous Substances
- B3. Resource Saving
- B4. Higher Quality
- C3. Design and Material selection
- C4. Product Manufactures

Materials: Achieved the industry's first low-profile styling and reduced previous content by 30% due to miniaturization. (8 × 8mm)

Chemical Substances: Cadmium, mercury, lead, hexavalent chromium, PBB, and PBDE are complied to EU RoHS Directive. No use of antimony and halogen related substances due to the sleeve-less structure.



Products/Model :
FPCAP-RE L8 series

Eco-components No.014

Semiconductor Manufacturing Devices

Small motors, less than 3W

Fluid dynamic bearing 2.5 inch HDD motor, Low noise & voltage, Impact resistance

Victor Company of Japan, Ltd.

1644 Shimotsuruma, Yamato City, Kanagawa, 242-8514 Japan
Tel; 81-46-278-1707 Fax; 81-46-278-1785
E-mail;
URL; <http://www.jvc-victor.co.jp/english/global-e.html>

Category:

- A4. Waste
- B1. Recyclability
- B4. Higher Quality
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

Low noise and low current are realized by optimum magnetic circuit design and by employing FDP (Fluid Dynamic Bearing). Impact resistance of 1500G guaranteed. Various applications for laptop PC, digital audio visual home appliances, and in-vehicle use.



Products/Model :
HDD spindle motor: EC37 series

Eco-components No.015

Semiconductor Manufacturing Devices

Relays

Downsized Silent Relay

FUJITSU COMPONENT LIMITED

Gotanda-Chuo Bldg., 3-5, Higashi-Gotanda 2-chome, Sinagawa-ku,
Tokyo, 141-8630 Japan
Tel; 81-3-5449-7010 Fax; 81-3-5449-2626
E-mail; promoqh@fcl.fujitsu.com
URL; <http://www.fcl.fujitsu.com/>

Category:

- A3. Hazardous Substances
- B3. Resource Saving
- B4. Higher Quality
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

Quietness: Achieved the world's first silent relay with low-profile styling and the product height of 19mm (Mar. 05). Average sound pressure is 55db.(previous product is 70db)

Safeness: Achieved voltage endurance of more than 5000V and surge endurance of more than 10000V by securing the insulation distance between coil contact points for more than 8mm. Adopted the plastics of UL94 flame resistance class V-0.

Chemical Substances: Cadmium, mercury, lead, hexavalent chromium, PBB, and PBDE are complied to EU RoHS Directive.



Products/Model :
FTR-H3 series

Eco-components No.016

Semiconductor Manufacturing Devices

Electronic parts

Energy Saving Electric Transceiver Module

FUJITSU COMPONENT LIMITED

Gotanda-Chuo Bldg., 3-5, Higashi-Gotanda 2-chome, Sinagawa-ku,
Tokyo, 141-8630 Japan
Tel; 81-3-5449-7010 Fax; 81-3-5449-2626
E-mail; promoqh@fcl.fujitsu.com
URL; <http://www.fcl.fujitsu.com/>

Category:

- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

Energy Saving: Achieved 2.9W of electricity consumption when operating. Reduced previous electricity consumption by 30-50%.

High Specifications: Complied to XENPAK/X2 MSA figure and enabled to insert existing optical module slot. Loaded Fujitsu Component's microGiGaCN which is introduced many next-generation high-speed interface standard. Achieved transmission of 3.125Gbps × 4channel with 20m, 10Gbps bidirectional communication by copper cable.



Products/Model :
FCU-010/022M 10GBASE-CX4 X2

Eco-components No.017

Semiconductor Manufacturing Devices

Electronic parts

Microminiaturized SAW Duplexer

FUJITSU MEDIA DEVICES LIMITED

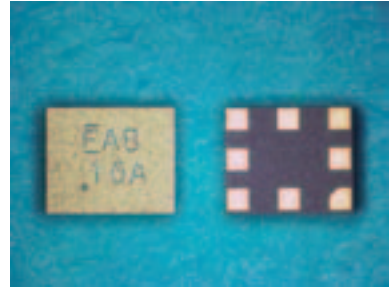
Shin-yokohama Square Bldg. 14F, 2-3-12, Shin-Yokohama, Kohoku-ku,
Yokohama-shi, Kanagawa, 222-0033 Japan
Tel; 81-45-475-6571 Fax; 81-45-475-6583
E-mail; sales@fmd.fujitsu.com
URL; <http://edevic.fujitsu.com/fmd/>

Category:

- A3. Hazardous Substances
- B3. Resource Saving
- B4. Higher Quality
- C3. Design and Material selection
- C4. Product Manufactures

Materials: Achieved the industry's first small configuration due to miniaturization and low-profile styling and reduced previous volume by 88%. (3.0 × 2.5 × 0.7mm)

Chemical Substances: Cadmium, mercury, lead, hexavalent chromium, PBB, and PBDE are complied to EU RoHS Directive.



Products/Model :

SAW Duplexer D6GZ/D6GV

Eco-components No.018

Semiconductor Manufacturing Devices

Electronic parts

Superior De-materialized Wireless LAN Module

FUJITSU MEDIA DEVICES LIMITED

Shin-yokohama Square Bldg. 14F, 2-3-12, Shin-Yokohama, Kohoku-ku,
Yokohama-shi, Kanagawa, 222-0033 Japan
Tel; 81-45-475-6571 Fax; 81-45-475-6583
E-mail; sales@fmd.fujitsu.com
URL; <http://edevic.fujitsu.com/fmd/>

Category:

- A3. Hazardous Substances
- B3. Resource Saving
- B4. Higher Quality
- C3. Design and Material selection
- C4. Product Manufactures

Materials: Reduced previous volume by 47% due to miniaturization.
(Smallest in Industry)

Chemical Substances: Cadmium, mercury, lead, hexavalent chromium, PBB, and PBDE are complied to EU RoHS Directive.
No use of halogen flame retardant and antimony compound from printed circuit board.



Products/Model :

MBH7WLZ07M

Eco-components No.019

Machine Parts

Rolled and drawn copper products

Thermo-fin

Hitachi Cable., Ltd.

9-7 Ikenohata 2-chome, Taito-ku, Tokyo, 110-0008 Japan

Tel; 81-29-826-7429 Fax;

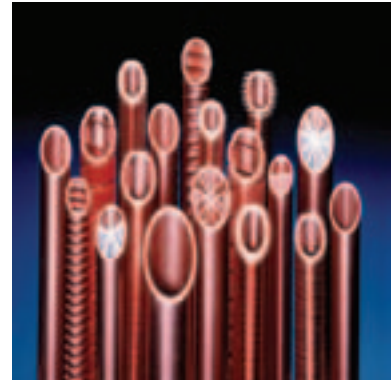
E-mail;

URL; <http://www.hitachi-cable.co.jp/>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B5. Energy Saving

Making about 30% efficient is achieved because of the processing of the ditch in the copper pipe. The surface area on the inside is increased because a detailed ditch is processed in the copper pipe, and making about 30% efficient is achieved by the effect of the refrigerative of the condensation promotion. Only the copper that can be recycled by 100.



Products/Model :
Thermo-fin

Eco-components No.020

Machine Parts

Roller bearings, except ones for bearing units

EM/EW series high load rating cylindrical roller bearings

NSK Ltd.

Nissei Bldg., 1-6-3, Ohsaki, Shinagawa-ku, Tokyo, 141-8560 Japan

Tel; +81-3-3779-7111 Fax; +81-3-3779-7431

E-mail;

URL; <http://www.nsk.com>

Category:

- A1. Global Warming
- B2. Longevity
- B3. Resource Saving
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Cylindrical roller bearings have a high capacity and are able to run at high speeds. They are widely used for general industrial machinery such as steel-making and construction machinery, large-scale electric motors. However, a difficult balance exists between bearing life, bearing tolerances and bearing noise. NSK, with its R&D expertise and production technique, offers a full lineup of cylindrical roller bearings for different applications. NSK has come to dominate this opposing position by providing a variety of kinds of cylindrical roller bearings to meet the needs of different applications. The EM (with copper alloy machined cage) and EW (with steel plate cage) Series are designed with high-capacity reinforced cage guiding rollers, and improved mechanical fatigue strength, thereby doubling their working lives compared to conventional designs. Also, the high-precision cages cut vibration resulting in a 50% noise reduction when compared to conventional cages. All these products have been designed to further enhance our environmental performance.



Products/Model :
EM/EW series cylindrical roller bearings

Eco-components No.021

Machine Parts

Thick film IC

Advanced Hollow Fiber Membrane for wastewater treatment by MBR

Mitsubishi Rayon Engineering Co., Ltd.

6-41, Konan 1-Chome, Minato-ku, Tokyo, 108-8506 Japan

Tel; 81-3-5495-3152 Fax; 81-3-5495-3217

E-mail; membrane.mre@mrc.co.jp

URL; <http://www.mrc.co.jp/mre/>

Category:

- A4. Waste
- B3. Resource Saving
- B5. Energy Saving
- B6. Environmental Purification
- C6. End-of-Life

Membrane bioreactor (MBR) technology has been used around the world for its ability to create safe and pleasant environment. Our advanced hollow fiber membrane for MBR, that named Sterapore SADF, materializes saving space/energy and easy maintenance, which can be adapted to large capacity wastewater treatment facilities.



Products/Model :

SADF2590A, SAA50090APE06

Eco-components No.022

Machine Parts

Small motors, less than 3W

Eco-friendly motor with High efficiency and reduced size

Mitsubishi Electric Corporation

2-2-3 Marunouchi, Chiyoda-ku, Tokyo, 100-8310 Japan

(after 07/Nov./2005 it will be changed to 2-7-3)

Tel; +81-3-3218-9024 Fax; +81-3-3218-2465

E-mail; eqd.eco@hq.melco.co.jp

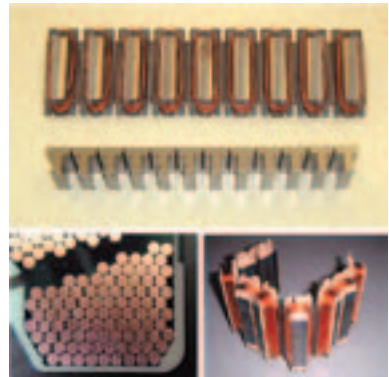
(eqd.eco@pj.MitsubishiElectric.co.jp (after 7/Nov./2005))

URL; <http://www.MitsubishiElectric.co.jp/corporate/eco/index.html>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving
- C2. Material and Components Production

Motors account for about 50% of electrical consumption in Japan. The Poki Poki Motor® is based on a production technology that was developed in 1995 to boost both performance and manufacturing productivity. This motor is produced by unique method developed by Mitsubishi Electric of winding the coils around the stator core and then bending it into a round shape, allowing for high-speed winding during production. The higher coil density makes these motors more efficient and compact. These motors are being used in many products today, from air conditioners and other home appliances to elevators.



Products/Model :

Poki Poki Motor®

Eco-components No.023

Machine Parts

Motor vehicle parts and accessories

Power cable Harness for Hybrid Vehicles

Hitachi-Cable, Ltd. Electronic & Automotive Products Group

1-6-1 Otemachi, Chiyoda-ku, Tokyo, 100-0004 Japan

Tel; 81-3-5252-3438 Fax; 81-3-3215-1630

E-mail; kondo.yasuhiro@hitachi-cable.co.jp

URL; <http://www.hitachi-cable.co.jp/> (Japanese)

Category:

- A3. Hazardous Substances
- C2. Material and Components Production

Ecological Cable with Fine Durability for Vibration and Bending at Low Temperature. Halogen Free Ecological Cable (Halogen cause toxic substance in combustion.) Keep outstanding durability for bending and vibration under $-40\sim-30\text{C}$ ($-22\sim-62\text{F}$) Use of fine materials for small diameter cable corresponded to small Active ABS sensor¹⁾

1) A Generic term for sensors using semiconductor device such as Hall IC



Products/Model :

Power cable Harness

Eco-components No.024

Machine Parts

Motor vehicle parts and accessories

Brake hoses

Hitachi Cable., Ltd.

1-6-1 Otemachi, Chiyoda-ku, Tokyo 100-0004 Japan

Tel; Fax;

E-mail;

URL; <http://www.hitachi-cable.co.jp/>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B5. Energy Saving

New surface treatment metal fittings that do not use hexavalent chromium. Low expansiveness and long life when pressurizing it by material development and reviewing material composition. The energy saving is achieved by developing a precise, cold, forged manufacturing method of metal fittings.



Products/Model :

Brake hoses

Eco-components No.025

Automobile Parts

Tires for trucks and buses

Tire for Super Single Drive Axle GREATEC

Bridgestone Corporation

10-1, Kyobashi 1-chome Chuo-ku, Tokyo, 104-8340 Japan

Tel; 81-3-3563-6972 Fax; 81-3-3563-1165

E-mail;

URL; <http://www.bridgestone.co.jp/english/index.html>

Category:

- A1. Global Warming
- A2. Air Pollution
- A5. Resource Consumption
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

Bridgestone launched the GREATEC line in 2000 as ultralow aspect ratio tires to replace dual drive tires on trucks and buses with single tires. GREATEC tires improve fuel economy because a GREATEC tire and rim weighs less than two conventional tires and rims. In addition, this concept contributes to waste saving.



Products/Model :
GREATEC 495/45R225 for Truck

Eco-components No.026

Automobile Parts

Tires for trucks and buses

Fuel economy Truck and Bus Tires ECOPIA

Bridgestone Corporation

10-1, Kyobashi 1-chome Chuo-ku, Tokyo, 104-8340 Japan

Tel; 81-3-3563-6972 Fax; 81-3-3563-1165

E-mail;

URL; <http://www.bridgestone.co.jp/english/index.html>

Category:

- A1. Global Warming
- A2. Air Pollution
- A5. Resource Consumption
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

It is necessary to develop the new generation tire for fuel saving and preserving environment of the earth. Especially, it is useful for truck and bus which are gas-guzzling cars to reduce the rolling resistance of its tires. Bridgestone corporation has developed the low rolling resistance truck and bus tires, and has already launched to the market, dubbed ECOPIA line. ECOPIA has superior low rolling resistance for a long haul users keeping basic tire performances.



Products/Model :
ECOPIA 11R225 for Truck

Eco-components No.027

Automobile Parts

Tires for passenger car

SSR (Self Supporting Runflat Tire)

Bridgestone Corporation

10-1, Kyobashi 1-chome Chuo-ku, Tokyo, 104-8340 Japan

Tel; 81-3-3563-6972 Fax; 81-3-3563-1165

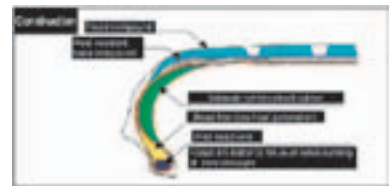
E-mail;

URL; <http://www.bridgestone.co.jp/english/index.html>

Category:

- A4. Waste
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving
- C6. End-of-Life

They can keep a tire functioning to drive a car safely at a specified speed for a specified distance after a loss of tire pressure. Resources can be saved by eliminating the need for a spare tire with a wheel, which are often discarded even in mint condition. (90% of spare tires have been discarded in mint condition.)



Eco-components No.028

Automobile Parts

Diesel engines for motor vehicles

Low fuel consumption common rail diesel engine

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1572 Fax; 81-565-23-1589

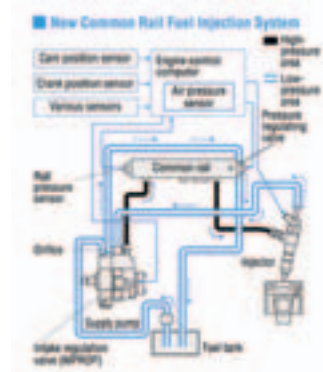
E-mail; hiromasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

The common rail fuel injection system ensures stable fuel injection pressure even at low gear without any effect on the engine. This is due to the storage of high pressure fuel produced with a pump within common rail. The direct-injection diesel engine achieves low fuel consumption and features a turbocharger with intercooler.



Products/Model :

common rail fuel injection system

Eco-components No.029

Automobile Parts

Parts of driving, transmission and operating units

Manufacturing process on clutch disk for automatic transmission unit

Dynax Corporation

1053-2, Kamiosatsu, Chitose-City, Hokkaido, 066-8585 Japan
 Tel; 81-123-24-2135 Fax; 81-123-24-2893
 E-mail; information@mail.dxj.co.jp
 URL; <http://www.dxj.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B1. Recyclability
- B3. Resource Saving
- B7. Usage of Recycled Materials

Standard automatic transmission unit has several clutches for speed gear change and about twenty to thirty numbers of clutch disc plates are assembled in clutches. Considering the environmental circumstance of Earth, We, Dynax Corporation, can realize hundred per cent material recycle in production process. Clutch disc plate are composed of friction materials and core steel plate. Before, we were obliged to dispose of un-utilized friction materials by seventy per cent as industrial scrap, but we could improve the utilization of friction materials and now we have installed a new production process with hundred per cent recycle system. We also realize hundred per cent recycle system for steel scrap and introduce an unmanned full automated process line.



Products/Model :

Tomakomai factory Clutch disk for automatic

Eco-components No.030

Automobile Parts

Parts of driving, transmission and operating units

Groove Pattern for Drag Torque Reduction

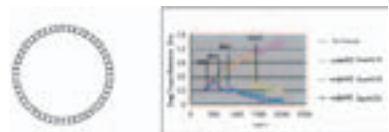
Dynax Corporation

1053-2, Kamiosatsu, Chitose-City, Hokkaido, 066-8585 Japan
 Tel; 81-123-24-2135 Fax; 81-123-24-2893
 E-mail; information@mail.dxj.co.jp
 URL; <http://www.dxj.co.jp>

Category:

- B4. Higher Quality
- B5. Energy Saving
- C2. Material and Components Production
- C3. Design and Material selection

Standard automatic transmission are composed of several clutches and during a driving operation always we find a free revolving clutch. As a critical cause of kinetic and torque loss we must solve this problem of drag torque in case such a free revolving clutch were occurred. We, Dynax Corporation, could realize to decrease such a kinetic loss by fifty per cent by introducing the new art of grooving the special pattern channel on the surface of friction materials to run gear oil. We, Dynax Corporation, have been making research and development to present a suitable pattern or formula for better oil running and made great contributions to produce a oil and energy saving car.



Products/Model :

Groove Design Effects of Groove Design

Eco-components No.031

Automobile Parts

Motor vehicle parts and accessories

CERAMIC FILTER of EXHAUST GAS CLEANUP for DIESEL ENGINE

Hitachi Metals Automotive Components Company

6-27-19 Haramatida, matida-shi, Tokyo, 194-0013 Japan

Tel; 81-42-732-5335 Fax;

E-mail;

URL; http://www.hitachi-metals.co.jp/e/prod/prod06/p06_09.html

Category:

- A2. Air Pollution
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

Coexistence of high filtration efficiency and low fuel consumption (low pressure drop) Contribute to reduce PM (Particulate Matter) of diesel vehicles which are low fuel consumption and energy saving Realize low pressure drop and lightweight High filtration efficiency, without worsening fuel consumption Correspond to new long-term emission regulation.



Products/Model :
CERAMIC FILTER

Eco-components No.032

Others

Printing Ink

Sheet-fed offset printing ink containing soybean oil

TOYO INK MFG. CO., LTD.

3-13, Kyobashi 2-chome, Chuo-ku, Tokyo, 104-8377 Japan

Tel; 81-3-3272-5720 Fax; 81-3-3272-9788

E-mail; master@toyoink.co.jp

URL; <http://www.toyoink.co.jp>

Category:

- A2. Air Pollution
- A3. Hazardous Substances
- A5. Resource Consumption
- B7. Usage of Recycled Materials
- C3. Design and Material selection

This is low pollution/low emission printing ink. Aromatic ingredients content in the ink is less than 11%, soy oil content is more than 20%, which doesn't deteriorate drying on print, still ensure printing of the same quality as regular ink.



Products/Model :
TK Hy-Unity SOY

Eco-components No.033

Others

Printing Ink

Sheet-fed offset printing ink containing soybean oil and no VOC

TOYO INK MFG. CO., LTD.

3-13, Kyobashi 2-chome, Chuo-ku Tokyo, 104-8377 Japan

Tel; 81-3-3272-5720 Fax; 81-3-3272-9788

E-mail; master@toyoink.co.jp

URL; <http://www.toyoink.co.jp>

Category:

- A2. Air pollution
- A3. Hazardous Ssubstances
- A5. Resource Consumption
- B7. Usage of Recycled Materials
- C3. Design and Material selection

This is sheet-fed offset printing ink for thin paper with low pollution/emission, which doesn't contain any VOC(abbreviation of Volatile Organic Compound, petroleum solvent). It has good setting and drying properties equivalent to regular sheet-fed process ink. It acquired the "Soy Seal" issued by the ASA(American Soybean Association), which certifies that the ink contains soybean oil/soybean protein. Besides, vegetable oil replaced VOC in the ink, and aromatic capacity ratio in the ink was set at less than 1%.



Products/Model :

TK Hy-Ecoo NV

Eco-components No.034

Others

Printing Ink

Web offset ink containing soybean oil and no aromatic solvent

TOYO INK MFG. CO., LTD.

3-13 Kyobashi 2-chome, Chuo-ku, Tokyo, 104-8377 Japan

Tel; 81-3-3272-5720 Fax; 81-3-3272-9788

E-mail; master@toyoink.co.jp

URL; <http://www.toyoink.co.jp>

Category:

- A2. Air Pollution
- A3. Hazardous Substances
- A5. Resource Consumption
- B7. Usage of Recycled Materials
- C3. Design and Material selection

This is high-performance web offset process ink with low pollution/emission, containing soybean oil. It realized equivalent efficiency to conventional products without detriment to drying property. From the standpoint of environmental conservation, it uses only aroma-free solvent and soybean oil more than 7% of whole content. Aromatic capacity ratio is set at less than 1%.



Products/Model :

WD LeoEcoo SOY

Eco-components No.035

Others

Printing Ink

Hybrid UV ink containing soybean oil with deinking properties

TOYO INK MFG. CO., LTD.

3-13, Kyobashi 2-chome, Chuo-ku, Tokyo, 104-8377 Japan

Tel; 81-3-3272-5720 Fax; 81-3-3272-9788

E-mail; master@toyoink.co.jp

URL; <http://www.toyoink.co.jp>

Category:

- A2. Air Pollution
- A3. Hazardous Substances
- A5. Resource Consumption
- B7. Usage of Recycled Materials
- C3. Design and Material selection

This is the new generation printing ink combining the printing effect of oil ink and quick drying properties of UV ink, which enables to make out high-gloss print with high color rendition. It is eco-friendly low pollution/low emission type printing ink with deinking properties same as oil ink, certified with Soy Seal. Aromatic capacity ratio is set at less than 1% and VOC is 0%. The percentage of soybean oil contained in the ink is more than 7%.



Products/Model :
FD Hybrid Eco SOY

Eco-components No.036

Others

Printing Ink

Water based gravure printing ink for laminated films

TOYO INK MFG. CO., LTD.

3-13, Kyobashi 2-chome, Chuo-ku, Tokyo, 104-8377 Japan

Tel; 81-3-3272-5720 Fax; 81-3-3272-9788

E-mail; master@toyoink.co.jp

URL; <http://www.toyoink.co.jp>

Category:

- A2. Air Pollution
- A3. Hazardous Substances
- A5. Resource Consumption
- B3. Resource Saving
- C3. Design and Material selection

This is non-hazardous water based gravure printing ink with low pollution and low emission. It is multi-purpose lamination ink applicable for wide range areas from snack to retort food. The percentage of VOC contained ink is set at less than 20%.



Eco-components No.037

Others

Printing Ink

Water based gravure printing ink for polystyrene film

TOYO INK MFG. CO., LTD.

3-13, Kyobashi 2-chome, Chuo-ku, Tokyo, 104-8377 Japan

Tel; 81-3-3272-5720 Fax; 81-3-3272-9788

E-mail; master@toyoink.co.jp

URL; <http://www.toyoink.co.jp>

Category:

- A2. Air Pollution
- A3. Hazardous Substances
- A5. Resource Consumption
- B3. Resource Saving
- C3. Design and Material selection

This water based gravure printing ink is non-hazardous ink with low pollution/emission. Among different applications, it is particularly suitable for printing on polystyrene shrink label for PET bottles. VOC (volatile organic compounds) content in the ink is set at less than 20%.



Eco-components No.038

Others

Printing Ink

Water based flexographic printing ink for corrugated Boards

TOYO INK MFG. CO., LTD.

3-13, Kyobashi 2-chome, Chuo-ku, Tokyo, 104-8377 Japan

Tel; 81-3-3272-5720 Fax; 81-3-3272-9788

E-mail; master@toyoink.co.jp

URL; <http://www.toyoink.co.jp>

Category:

- A2. Air Pollution
- A3. Hazardous Substances
- A5. Resource Consumption
- B3. Resource Saving
- C3. Design and Material selection

100% water based flexographic ink with low pollution and low emission. This ink is for corrugated boards, designed to have low viscosity and high concentration. It is excellent at fast drying, decorative property, and printability. The percentage of VOC content in the ink is less than 5%.



Reverse osmosis membrane element for high quality pure water**Nitto Denko Corporation**

1-1-2, Shimohozumi, Ibaraki, Osaka, 567-8680 Japan

Tel; 81-72-622-2981 Fax; 81-72-626-1505

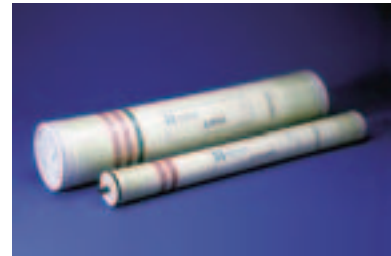
E-mail; info@hydranautics.com

URL; <http://www.nitto.com> or, <http://www.membranes.com>

Category:

- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

This Reverse osmosis membrane is used for producing ultrapure water from river water, or ground water for industrial use, safe drinking water from foul water and agricultural water. It eliminates impurities like salinity contained in water with very fine pores on the membrane surface. The "ESPA series" which is globally supplied under Hydranautics brand can create high quality pure water using around half of the energy required by current products. It was developed to produce ultrapure water vital to manufacture of semiconductors. The membrane has a skin layer of 0.6 micron-meter thick, with a well-developed three-dimensional pleated structure with a depth of 0.4 micron-meter, which increases double the specific surface area. Accordingly, this allows the permeate water to be produced with less pressure than was previously needed. "ESPA4" has a highest productivity & rejection with next-generation performance.



Products/Model :

ESPA4 from Hydranautics

3

Eco-products

- i Home electric appliances / Lightings
- ii Carriers / Automobiles
- iii OA / IT Equipments
- iv OA / Furniture
- v Apparel / Fabric Product
- vi Commodity / Outdoor Goods / Housing Kit
- vii Building and Civil Engineering
- viii Machines and Equipments
- ix Others



Eco-products No.001

Home electric appliances/ Lightings

Paper exhibition panel

Eco-friendly paper panel exhibition board

Shin Nippon Core Co., Ltd.

1-3-9 Kokaba, Iwatsuki-shi Saitama-ken, 339-0072 Japan

Tel; 81-48-793-1171 Fax; 81-48-793-2775

E-mail; shin-nippon@sncore.jp

URL; <http://www.sncore.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B1. Recyclability
- C1. Materials Extraction
- C6. End-of-Life

Explanation panels used at exhibitions are usually made from styrene which contains petroleum so the boards are disposed of as industrial waste. However, the OK eco-panel with direct printing can be recycled after use or disposed of by incineration with little environmental impact. This is because it is made from paper and has a combined structure of G-flute corrugated cardboard with a honeycomb core which is light and strong.



Products/Model :
OK Eco-panel Direct printing Type

Eco-products No.002

Home electric appliances/ Lightings

The Daylighting System using Mirror Ducts

The Daylighting System using Mirror Ducts

Materialhouse Co., Ltd.

1-19-3, Naka-ikegami, Ota-ku, Tokyo, 146-0081 Japan

Tel; 81-3-3751-5158 Fax; 81-3-3755-0065

E-mail; m.iwata@materialhouse.co.jp

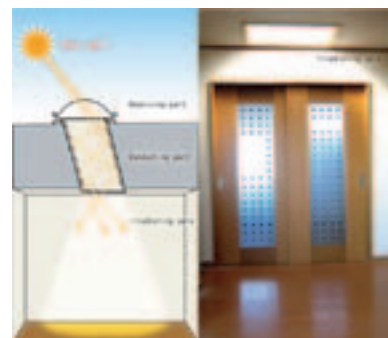
URL; <http://www.materialhouse.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

The daylighting system using mirror ducts (the System) brings daylight into indoors. It is easy to use, compared to the skylight system using top lights, because it thoroughly diffuses and controls light during the receiving and conducting processes. The System contributes to CO₂ discharge reduction by decreasing electric power usage for lighting as well as the creation of comfortable environments that artificial lighting cannot provide. It has the following characteristics:

- A simple structure, utilizing mirrors to lead daylight into rooms, which supplies plenty of light economically.
- High energy-use efficiency because the System simply uses natural light without converting it into electricity, etc.
- No energy consumption to operate any machinery or equipment because there is nothing like sun-chasing devices.
- Maintenance-free for significant time of period because its closed up structure protects itself from most trouble and deterioration.



Products/Model :
The Daylighting System using Mirror Ducts

Eco-products No.003

Home electric appliances/ Lightings

Digital audio player

Digital audio player with built-in memory player in airy armless headphone

Victor Company of Japan, Ltd.

1644 Shimotsuruma, Yamato City, Kanagawa, 242-8514 Japan

Tel; 81-45-278-1804 Fax; 81-46-278-1807

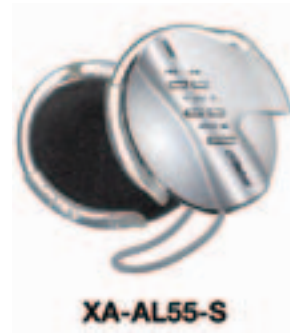
E-mail;

URL; <http://www.jvc-victor.co.jp/english/global-e.html>

Category:

- A4. Waste
- B1. Recyclability
- A3. Hazardous Substances
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

New-style audio player with built-in memory player in armless headphone. The player has built-in 256MB flash memory capable of wp recording about 120 tracks in WMA file. Various operations such as power on/off, play/stop, skip of track and other detail mode settings can be checked by voice.



Products/Model :

Digital audio player XA-AL55

Eco-products No.004

Home electric appliances/ Lightings

Gas and oil appliances

Gas Cooking Stove with high efficiency burners

Osaka Gas Co., Ltd.

4-1-2, Hiranomachi, Chuo-ku, Osaka, 541-0046

Tel; 81-6-6205-4605 Fax; 81-6-6202-1040

E-mail;

URL; <http://www.osakagas.co.jp>

Category:

- B5. Energy Saving

The burner of 56% efficiency has produced economic and energy-saving advantages over conventional cookers of 40% efficiency. With the glass surface, it is easy to clean and maintain. Compared with induction heater cookers, the gas cooking stove has reduced annual CO₂ emission by 60%.



Eco-products No.005

Home electric appliances/ Lightings

Gas and oil appliances

Dishwasher - Gas heated water washes dishes economically

Osaka Gas Co., Ltd.

4-1-2, Hiranomachi, Chuo-ku, Osaka, 541-0046 Japan

Tel; 81-6-6205-4605 Fax; 81-6-6202-1040

E-mail;

URL; <http://www.osakagas.co.jp>

Category:

- A1. Global Warming
- B5. Energy Saving

The energy efficient gas water heater supplies hot water for the dishwasher and, compared with handwashing, water consumption is reduced to 1/8 and gas consumption to 1/4.



Eco-products No.006

Home electric appliances/ Lightings

Heated air and hot water heating systems

Heat pump Water for home use

Hitachi Home & Life Solutions, inc.

2-15-12 Nishi-Shinbashi, Minato-ku, Tokyo, 105-0003 Japan

Tel; 0120-3121-11 Fax;

E-mail;

URL; <http://www.kandenfan.hitachi.co.jp> (Japanese only)

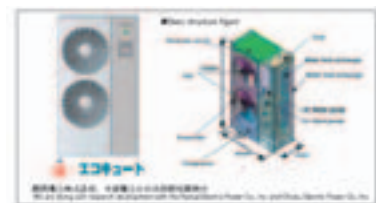
Category:

- A1. Global Warming
- A5. Resource Consumption
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

High-power packaged unit for home use "ECO CUTE²⁾". Utilizing natural refrigerants (CO₂). Utilizing natural refrigerants with GWP(Global Warming Potential) value of approximately 1/1730 that of CFCs substitutes. Enabling High power and saving energy with Hitachi unique PAM¹⁾-control technology. Compact design integrating the heat pump equipment and small support tank enables space-saving. Achieved the highest industry ratings with heating power of 23KW and COP²⁾ rating of 4.6.

1) PAM : Pulse Amplitude Modulation

2) COP : Coefficient of Performance



Products/Model :
ECO CUTE

Eco-products No.007

Home electric appliances/ Lightings

Heating and cooking apparatus

IH Cooking Heater

Hitachi Home & Life Solutions, inc.

2-15-12 Nishi-Shinbashi, Minato-ku, Tokyo, 105-0003 Japan

Tel; 0120-3121-11 Fax;

E-mail;

URL; <http://www.kandenfan.hitachi.co.jp> (Japanese only)

Category:

- A1. Global Warming
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Suitable for open kitchen space Wide Top Plate-Induction Heater Cooking Table. High heating efficiency (90%) induction heater cooking and energy saving by 0W idling power. (67kWh power consumption saving compared with current model) Cutting 92% smoke by palladium oxidation catalyst device Silent design approx. 38dB of lowest noise in the market.

1) Roomy cooking space by 75cm wide top plate.



Products/Model :

HTW-4WFS

Eco-products No.008

Home electric appliances/ Lightings

Induction Heat Cooking Range

High-powered induction heat cooking range with thermal efficiency

TOSHIBA CONSUMER MARKETING CORPORATION

2-15, Sotokanda 2-chome, Chiyoda-ku, Tokyo, 101-0021 Japan

Tel; 81-3-3257-6150 Fax;

E-mail;

URL; <http://www.toshiba.co.jp/tcm/>

Category:

- A1. Global Warming
- B4. Higher Quality
- B5. Energy Saving
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

A safe and clean induction heat stove that generates high power without flame. With 3kw right and left burners equipped with induction heating and digital signal processor inverter, this product provides high power-equivalent to 5,400 kcal/h gas cooking stove. In addition, high microcomputer throughput speed ensures rapid heating and maintains a stable temperature for excellent cooking. Other advantages include high thermal efficiency (about 90%), the reduction of heating loss by low radiant heat, ventilation, and air conditioning. The eco-friendly design includes the use of lead-free solder in the production of the electronic board.



Products/Model :

Induction Heating Cooking Heater BHP-M46XS

Eco-products No.009

Home electric appliances/ Lightings

Elevators

Machine Room-Less Elevator

Hitachi, Ltd. Urban Planning and Development Systems

1-18-13 Soto-Kanda, Chiyoda-ku, Tokyo, 101-0021 Japan

Tel; 81-3-4564-3722 Fax; 81-3-4564-3883

E-mail;

URL; <http://www.hitachi.co.jp/Prod/elv/index2.html>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving

Machine Room-Less Elevator realizes "Human-Friendly Environment for the Next Generation". 12.6% of the operation power consumption (CO₂ exhaust) has decreased. (Compared with model in 1994) Density of formaldehyde in the elevator car is less than 0.08ppm. Non-chloridization vinyl (Olefin) is adopted for the car floor tile.



Products/Model :
Machine Room-Less Elevator

Eco-products No.010

Home electric appliances/ Lightings

Reactors, generators, carbonizers and electrolytic cells

Cerazone CZ-10ST 100% ozone treatment system

TERAO CO., LTD,

1-7-18 Minami-harimaya, Kochi, 780-0833 Japan

Tel; Fax; 088-883-6653

E-mail; info@terao-kochi.co.jp

URL; <http://www.terao-kochi.co.jp/info/info03sci.html>

Category:

- B1. Recyclability
- B3. Resource Saving
- B6. Environmental Purification

This product is designed to recirculate the water in large bathtubs. It employs filtering and ozone sterilization and can process 10 tons of water per hour.

- (1) Energy consumption is 950,000 MJ and carbon dioxide emissions are 38 tons over the entire life cycle of the product, including 10 years of use.
- (2) Energy consumption in the use stage is about 80 MWh, the volume of water treated over 10 years about 1,050 tons, and the average per month 9 tons.



Eco-products No.011

Home electric appliances/ Lightings

Projector

LCD Projector, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Rated power consumption per luminance is reduced by approx. 16% (compared with our conventional model TH-AE500). Circuit has been integrated to promote energy saving, and compactness of circuit boards and fundamental parts has been improved. Lead-free solder is employed in mounting main printed circuit board.



Products/Model :
LCD Projector, TH-AE700

Eco-products No.012

Home electric appliances/ Lightings

Air conditioners, except window and separate types

Room Air Conditioner

Hitachi Home & Life Solutions, inc.
2-15-12 Nishi-Shinbashi, Minato-ku, Tokyo, 105-0003 Japan
Tel; 0120-3121-11 Fax;
E-mail;
URL; <http://www.kandenfan.hitachi.co.jp> (Japanese only)

Category:

- A1. Global Warming
- A5. Resource Consumption
- B5. Energy Saving

The highest level energy conservation will be achieved with the "Double accelerator systems". "Double accelerator systems" can realize the innovative energy conservation and the highest level heating performance. Air-intake and air-discharge function will make air in a room being kept fresh, and the twin airflow will keep the room at an ideal temperature and provide for comfort. Newly-developed "Nano-titanium air-purifying systems" will make clean air in a room effectively.



Products/Model :
RAS-S28T(W)

Eco-products No.013

Home electric appliances/ Lightings

Vending machines

Vending machine, Energy conservation, CFC-free refrigerant

Food Solutions Division, Matsushita Refrigeration Company

3-4-74 Nojihigashi, Kusatsu City, Shiga, 525-0058 Japan

Tel; 81-77-566-4855 Fax;

E-mail;

URL;

Category:

- A1. Global Warming
- A5. Resource Consumption
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving

As an environment friendly CFC-free vending machine, great energy-conservation has been attained by employing Matsushita's unique reciprocating compressor and seamless heat exchanger responsive to CFC-free refrigerant, and highly efficient cooling systems and optimal application of vacuum insulating materials and the total design through reduction in heat absorption quantity, which has been made possible by the heat-insulating construction using no inner boxes. Energy conservation standards achievement 133%.



Products/Model :

CFC-free vending machine NS-4R30WSTRH

Eco-products No.014

Home electric appliances/ Lightings

Electronic ovens

Steam Microwave Oven for home use, High efficiency

Energy & Healthcare Solutions Division, Matsushita Electric Industrial Co., Ltd.

800 Tsutsui-cho, Yamatokoriyama City, Nara, 639-1188 Japan

Tel; 81-743-56-9830 Fax;

E-mail;

URL; http://national.jp/product/cooking/mi_oven/

Category:

- A1. Global Warming
- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

It is an energy conservation steam microwave oven that achieved highly effective and the Rappres warming by triple heating of the adoption of the highly effective inverter power supply, steam, the electric wave, and the heater.



Products/Model :

Steam Microwave Oven NE-SS30-S

Eco-products No.015

Home electric appliances/ Lightings

Electric refrigerators

Environmentally-friendly refrigerator

Mitsubishi Electric Corporation

2-2-3 Marunouchi, Chiyoda-ku, Tokyo, 100-8310 Japan
 (after 07/Nov./2005 it will be changed to 2-7-3)
 Tel; +81-3-3218-9024 Fax; +81-3-3218-2465
 E-mail; eqd.eco@hq.melco.co.jp
 (eqd.eco@pj.MitsubishiElectric.co.jp (after 7/Nov./2005))
 URL; <http://www.MitsubishiElectric.co.jp/corporate/eco/index.html>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B1. Recyclability
- B5. Energy Saving
- B7. Usage of Recycled Materials

1. Auto-closer function prevents door from being left open, avoiding waste of electricity.
2. All refrigerator models were Freon-free by March 2005.
3. Uses lead-free solder to attach electronic components to circuit board.
4. Vegetable compartments from used refrigerators can be recycled in-house for air conditioner parts, and plastic that was recycled in-house can be used in base protectors".
 * "Closed-Loop Recycle System of Plastics"



Products/Model :
MR-G50NF, MR-A41NF

Eco-products No.016

Home electric appliances/ Lightings

Electric refrigerators

Refrigerator

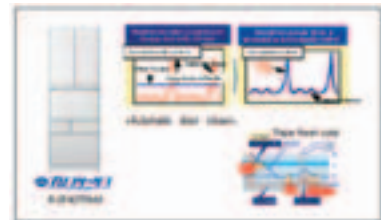
Hitachi Home & Life Solutions, inc.

2-15-12 Nishi-Shinbashi, Minato-ku, Tokyo, 105-0003 Japan
 Tel; 0120-3121-1 Fax;
 E-mail;
 URL; <http://www.kandenfan.hitachi.co.jp> (Japanese only)

Category:

- A1. Global Warming
- A5. Resource Consumption
- B5. Energy Saving

Energy saving approximate 85% by low speed control and PAM (Pulse Amplitude Modulation) Control of motor torque at the low-speed operation, PAM (Pulse Amplitude Modulation) control of compressor and vacuum insulation panel contribute to energy saving. Automatic door closer and indicator on the door make the door closed certainly. Low-temp freezing technology maintains the freshness of food more.



Products/Model :
R-SF42TPAM

Eco-products No.017

Home electric appliances/ Lightings

Electric refrigerators

Energy-saving Nano-optical plasma deodorization Refrigerator/freezer

TOSHIBA CONSUMER MARKETING CORPORATION

2-15 Sotokanda 2-Chome, Chiyoda-ku, Tokyo, 101-0021 Japan

Tel; 81-3-3257-6150 Fax;

E-mail;

URL; <http://www.toshiba.co.jp/tcm/>

Category:

- A1. Global Warming
- B4. Higher Quality
- B5. Energy Saving
- B7. Usage of Recycled Materials
- C5. Product Use, Maintenance and Repair

A new parallel-cooling cycle was used. It can cool simultaneously the room of the refrigerator and that of the freezer. As a result, it was realized that the fluctuation of the temperature of each room is depressed and the cooling of each room is carried out without futility. In addition, by applying the vacuum heat-insulating material and the DSP inverter, the annual power consumption was lowered to 170kWh. Furthermore, the photo-plasma with nano-wave increased the deodorization power to about 10 times that of the previous goods. (10 times: our company' ratio).



Products/Model :
GR-W41FA

Eco-products No.018

Home electric appliances/ Lightings

Electric refrigerators

Save-energy & CFC-free Refrigerator

Matsushita Refrigeration Company

2-3-1-2 Noji-higashi, Kusatsu City, Shiga, 525-8555 Japan

Tel; 81-77-563-3611 Fax;

E-mail;

URL; <http://national.jp>

Category:

- A1. Global Warming
- B4. Higher Quality
- B5. Energy Saving
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

These are refrigerators that use no CFCs as refrigerant or foam insulation material. Employing a newly developed high-performance vacuum insulation material, Matsushita has already attained Japan's FY'04 energy-saving target by 279%. Moreover, we have developed a method for removing metals or any other foreign objects that cause defective moldings of recycled plastics. And also we have increased the quantity of parts made of recycled plastics that account for about 20% of entire resin used for a refrigerator. In addition, our products are laid out newly to take out foods easier.



Products/Model :
NR-F461A

Eco-products No.019

Home electric appliances/ Lightings

Electric refrigerators

Plasmacluster ion refrigerator with a door opened from both sides

SHARP CORPORATION

22-22, Nagaïke-cho, Abeno-ku, Osaka, 545-8522 JAPAN

Tel; 81-6-6625-0438 Fax; 81-6-6628-1653

E-mail; morishita.masaaki@sharp.co.jp

URL; <http://www.sharp.co.jp>

Category:

- B1. Recyclability
- B2. Longevity
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving

Non-CFC (non-chlorofluorocarbon) refrigerator that incorporates eco-friendly materials and improved energy saving functions. The product includes energy saving technologies that we have developed such as a high efficiency compressor and meticulous inverter control and vacuum insulation panel. The product incorporates a flexible power saving mode including a power saving function during your absence. The product does not use bromine fire retardant. It incorporates dehydrochloroethene, lead-free solder boards, lead-free wire, and recycled resin etc. Uses non-CFC refrigerant R-600a. By using advanced technology, it achieves ODP (ozone-depleting potential) of zero and 1/400th of the value of conventional CFC substitutes' GWP (global warming potential).



Products/Model :
Refrigerator SJ-PV40J-W/C/G

Eco-products No.020

Home electric appliances/ Lightings

Kitchen ware

Dishwasher, Water-saving, Easy to use

Matsushita Electric Industrial Co., Ltd.

1-2 Kamisu-cho, Toyonaka City, Osaka, 561-0823 Japan

Tel; 81-6-6331-6278 Fax; 81-6-6334-0567

E-mail;

URL; http://national.jp/product/house_hold/dishwasher/

Category:

- A5. Resource Consumption
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

[Product Features]

- (1) Disinfection spray not only washes out lipsticks and incrustations of tea, but also makes disinfection and sanitary washing possible.
- (2) A large upper and lower opening door is convenient for putting in and out of tableware items.

[Water Saving]

Washing efficiency is enhanced by the selector switch of four different washing nozzles, and water required to wash a piece of tableware items is saved by approx. 55% (compared to our models of the year 2002 which do not have this function).

[Green materials]

- (1) Lead-free solder is used for power cord, lead wires, and control circuit board.
- (2) Specified bromine fire retardants (PBB, PBDE) are not used for fire retardant plastic materials.
- (3) Instruction manuals are made of 70% recycled paper.



Products/Model :
Dishwasher NP-60SS6

Eco-products No.021

Home electric appliances/ Lightings

Kitchen ware

Induction Heating Cooking Heater (for all metal wares)

Matsushita Electric Industrial Co., Ltd.

1-5-1 Takatsukadai, Nishi-ku, Kobe City, 651-2271 Japan

Tel; 81-78-992-9461 Fax;

E-mail;

URL;

Category:

- A1. Global Warming
- A2. Air Pollution
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

[Features]

All metal wares such as aluminum pans and multilayer pans can be used thanks to induction heating evolution. Heating power is highly enhanced. The built-in optical sensor has made automatic water heating and rice cooking possible. Easy-to-read indicators and easy-to-operate universal design.

[Environmental Performance]

High thermal efficiency: enamel-coated pans approx. 90%, aluminum pans approx. 70% in water-heating mode. Minimal stand-by power consumption.

[Responsiveness to hazardous substances]

Accomplished lead-free solder, and non-use of mercury and specific bromine fire retardant.



Products/Model :

Induction Heating Cooking Table KZ-MSW32A

Eco-products No.022

Home electric appliances/ Lightings

Air conditioners

Environmentally-friendly air-conditioner

Mitsubishi Electric Corporation

2-2-3 Marunouchi, Chiyoda-ku, Tokyo, 100-8310 Japan

(after 07/Nov./2005 it will be changed to 2-7-3)

Tel; +81-3-3218-9024 Fax; +81-3-3218-2465

E-mail; eqd.eco@hq.melco.co.jp

(eqd.eco@pj.MitsubishiElectric.co.jp (after 7/Nov./2005))

URL; <http://www.MitsubishiElectric.co.jp/corporate/eco/index.html>

Category:

- A3. Hazardous Substances
- A4. Waste
- B1. Recyclability
- B5. Energy Saving
- C1. Materials Extraction

1. Compressor using the Poki Poki Motor®, achieved energy consumption efficiency by 136%. MOVE-EYE (name of sensing system to find appropriate area to be air conditioned) increased energy efficiency by about 30%.
2. Uses lead-free solder to attach electronic components to circuit board.
3. Our unique replacement technology now makes it possible to reuse existing pipes, reducing waste.
4. Service panel of the outdoor unit is made of plastic recycled in-house from vegetable compartments of used refrigerators*.
5. Fan of indoor unit is made of plastic recycled in-house from used air conditioners*.
6. Simple, easy-to-dismantle body design allows for easy recycling and cleaning.

* "Closed-Loop Recycle System of Plastics"



Products/Model :

MSZ-Z40RS

Eco-products No.023

Home electric appliances/ Lightings

Air conditioners

High performance, energy-saving air conditioner

DAIKIN INDUSTRIES, LTD.

Umeda Center Bldg., 2-4-12, Nakazaki-Nishi, Kita-ku, Osaka,
530-8323 Japan
Tel; 81-6-6374-9304 Fax; 81-6-6373-4380
E-mail; kankyo@daikin.co.jp
URL; <http://www.daikin.co.jp>

Category:

- A1. Global Warming
- B5. Energy Saving

<Top-class energy savings>

Daikin has further improved the energy efficiency and realized substantial energy savings compared to conventional models by achieving an industrial top-class COP of over 4 for both cooling and heating operations.

<Changes shape when on and off>

When it is turned off, the air inlet and outlet are closed, resulting in a compact depth of only 150 mm. You will not believe the indoor unit is an air conditioner with such a sleek profile. On starting the entire front panel slides open and a shutter moves, revealing air inlet and outlet to fully exploit the unit's performance.



Products/Model :
FTXG-C Series

Eco-products No.024

Home electric appliances/ Lightings

Air conditioners

High performance, energy-saving air conditioner

DAIKIN INDUSTRIES, LTD.

Umeda Center Bldg., 2-4-12, Nakazaki-Nishi, Kita-ku, Osaka,
530-8323 Japan
Tel; 81-6-6374-9304 Fax; 81-6-6373-4380
E-mail; kankyo@daikin.co.jp
URL; <http://www.daikin.co.jp>

Category:

- A1. Global Warming
- B5. Energy Saving

<Higher Energy Savings>

The FTKS25D model delivers a 23% higher COP of 3.57, thanks to its advanced DC Inverter technology. Daikin also provides a range of energy-saving functions including Intelligent Eye and Econo Mode.

<Sophisticated Appearance with Flat Panel>

The simple and stylish flat panel design harmonizes with any interior decor. Daikin's 2.5 and 3.5 kW class D series were awarded Japan's prestigious Good Design Award.



Products/Model :
FTK(X)S-D Series

Eco-products No.025

Home electric appliances/ Lightings

Air conditioners

Energy-saving air conditioner for residential use

Toshiba Carrier Corporation

12-32, Konan 2-chome, Minato-ku, Tokyo, 108-0075 Japan

Tel; 81-3-5781-7826 Fax; 81-3-5781-7852

E-mail;

URL; <http://toshiba-carrier.co.jp/>

Category:

- A5. Resource Consumption
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

EDR air-conditioners are equipped with various high efficiency components such as a vector control inverter, a streamline skewed fan, continuous 2-row heat exchanger fins. As a result, they are excellent at both powerful heating/cooling and energy saving. 406EDR, whose COP is 5.12, 140% of the legal standard, consumes only 40% electric power in comparison with similar air-conditioners 11 years ago. EDR also features distinguished zone control of its airflow, by which its heated/cooled air is mainly toward the living area. This airflow control results in 10% energy saving. In addition, efficiency during dehumidifying operation becomes about twice as high by combination of automatic intake panel control and reheat dehumidifier.



Products/Model :

RAS-406EDR(W)

Eco-products No.026

Home electric appliances/ Lightings

Air conditioners

Air-conditioner, Energy conservation, Air quality of room, for domestic market

Air-conditioner Division, Matsushita Electric Industrial Co., Ltd.

2-3-1-1 Nojihigashi, Kusatsu City, Shiga, 525-8520 Japan

Tel; 81-77-567-9807 Fax; 81-77-561-3208

E-mail;

URL; <http://national.jp/product/air/aircon>

Category:

- A1. Global Warming
- B1. Recyclability
- B4. Higher Quality
- B5. Energy Saving

Air-conditioner equipped with enhanced functions such as enzyme charging, automatic filter cleaning, and air-cleaning with ultra-sonic ion. To enhance energy conservation ratio, a highly efficient e-scroll compressor and a hybrid heat exchanger have been developed and achieved 129% of 2005 energy conservation standards.



Products/Model :

Air-conditioner indoor unit: CS-X285A

Eco-products No.027

Home electric appliances/ Lightings

Air conditioners

Air conditioner featuring ion air purification technology

SHARP CORPORATION

22-22, Nagaïke-cho, Abeno-ku, Osaka, 545-8522 JAPAN

Tel; 81-6-6625-0438 Fax; 81-6-6628-1653

E-mail; morishita.masaaki@sharp.co.jp

URL; <http://www.sharp.co.jp>

Category:

- B1. Recyclability
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- B6. Environmental Purification

The use of "Plasmacluster Ion air purification technology" helps to inactivate fungus and airborne viruses. One of the best energy saving scores in the industry (COP 3.91), energy saving ratio (123%) and the lowest stand-by power consumption (about 0.5W). The main board uses lead-free solder. The instruction manual has been printed using recycled paper and soya ink. Packaging material for an indoor unit uses only cardboard. Waste plastic (polypropylene) has been recycled for components of the indoor unit.(COP is an acronym for The Coefficient of Performance.) It represents cooling and heating capacity (kw) per 1kw power consumption. The higher the COP value, the greater the energy efficiency.



Products/Model :

Air conditioner AY-S45SXC

Eco-products No.028

Home electric appliances/ Lightings

Air conditioning and household equipment

Air-conditioning system with floor thermal storage

Hitachi Plant Engineering & Construction Co., Ltd.

2-11 Kanda-Nishikichou, Chiyoda-ku, Tokyo, 101-0054 Japan

Tel; 81-3-5281-0131 Fax; 81-3-5281-0139

E-mail; a-sales@hitachiplant.co.jp

URL; <http://www.hitachiplant.hbi.ne.jp>

Category:

- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving

Energy Saving Using: Floor Sensible Heat Storage + Packaged Air Conditioning. 7% Energy saving. 10% CO₂ reduction. 15% Running cost reduction, Additional cost reduction through thermal storage discount contract signed with utility company.¹⁾ 20% Reduction in heat load peak using floor sensible heat storage.²⁾ (Based on Hitachi Plant Experiment)

- 1) Utility rate discounts ensured by shifting part of day-time cooling loads to night time.
- 2) Downsizing cooling equipments through Peak Cut (During Cooling Season). Shifting day-time thermal loads to night time.



Products/Model :

Floor Sensible Thermal Storage Concept

Eco-products No.029

Home electric appliances/ Lightings

Air conditioning and household equipment

Photocatalytic air purifier

DAIKIN INDUSTRIES, LTD.

Umeda Center Bldg., 2-4-12, Nakazaki-Nishi, Kita-ku, Osaka,
530-8323 Japan

Tel; 81-6-6374-9304 Fax; 81-6-6373-4380

E-mail; kankyo@daikin.co.jp

URL; <http://www.daikin.co.jp>

Category:

● B3. Resource Saving

Developed using nanotechnology, the Titanium Apatite Photocatalyst powerfully adsorbs viruses and bacteria for superior removal.

Ideal for homes, stores, offices, and clinic waiting rooms.

- Compact design → Volume reduced approx. 18%(Compared to MC401VE.)
- Effective bacteria removal → Catechin pre-filter
- With Titanium Apatite Photocatalyst → 7 year Pre-cut filter roll
- Refreshes your living space → Negative ions
- Easy wipe clean → Flat panel



Products/Model :

MC704AVM

Eco-products No.030

Home electric appliances/ Lightings

Electric washing machines

Environmentally-friendly washer/dryer

Mitsubishi Electric Corporation

2-2-3 Marunouchi, Chiyoda-ku, Tokyo, 100-8310 Japan
(after 07/Nov./2005 it will be changed to 2-7-3)

Tel; +81-3-3218-9024 Fax; +81-3-3218-2465

E-mail; eqd.eco@hq.melco.co.jp

(eqd.eco@pj.MitsubishiElectric.co.jp (after 7/Nov./2005))

URL; <http://www.MitsubishiElectric.co.jp/corporate/eco/index.html>

Category:

- A3. Hazardous Substances
- B1. Recyclability
- B3. Resource Saving
- B5. Energy Saving
- B7. Usage of Recycled Materials

1. By reusing waste heat generated at drying operation, electricity charge can be reduced by about 10%.
2. Chrome-free painting steel plate is applied to body part.
3. Uses lead-free solder to attach electronic components to circuit board.
4. Save cooling water by controlling room temperature-rise at drying operation.
5. Recycled Styrofoam planned to be used.
6. Salt water in balancer unit of wash tub is reused at recycling plants in Japan.



Products/Model :

MAW-HD88X

Eco-products No.031

Home electric appliances/ Lightings

Electric washing machines

Water-Dryer

Hitachi Home & Life Solutions, inc.

2-15-12 Nishi-Shinbashi, Minato-ku, Tokyo, 105-0003 Japan

Tel; 0120-3121-11 Fax;

E-mail;

URL; <http://www.kandenfan.hitachi.co.jp> (Japanese only)

Category:

- A1. Global Warming
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving

Beat Wash uses three action to wash and dry clothes dramatically reducing water consumption. Beat Wash uses three actions-pressing, beating and kneading-to get clothes gleaming clean, with incredibly low water consumption. It takes about 120minutes to wash and dry 4kg of laundry. Up to 7kg can be dried at one time. Beat Wash is fast, makes clothes fluffy and clean, and can dry large volumes of laundry! Beat Wash uses a pump to circulate highly condensed soapy water, washing your laundry using 60% less water (compared with Hitachi washing machines of eight years ago). Even large laundry items can be loaded and unloaded with ease, thanks to the wide loading door. The control panel is installed on the wide loading door for ease of access. The large size of the panel and buttons makes them easy to see and use.



Products/Model :
BEAT WASH

Eco-products No.032

Home electric appliances/ Lightings

Electric washing machines

Fully Auto Washing Machine: tiled drum, easy to use, water-saving

Matsushita Electric Industrial Co., Ltd.

1-2 Kamisu-cho, Toyonaka City, Osaka, 561-0823 Japan

Tel; 81-6-6331-6758 Fax; 81-6-6334-0567

E-mail;

URL; http://national.jp/product/house_hold/wash/

Category:

- A5. Resource Consumption
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

[Enhanced washing capability]

- This model realized water conservation through employing "Shower Foam Washing" of the newly developed water pouring shower and baffling shower, which enhances washing capability. It saves water by approx. 108 liter per one washing compared to our automatic washing machine of seven years ago.
- This product enables adjustment of water quantity by the water level selection switch, which was not installed in the past drum-type washing machines.

[Shortening of drying time and enhancement of drying finish]

- This machine shortened drying time by employing a spacious drum which dries clothes evenly, and the newly shaped baffling. Drying time was shortened by approx. 60 minutes in comparison with our last year's 4.5-kg model.



Products/Model :
NA-V81

Eco-products No.033

Home electric appliances/ Lightings

Electric washing machines

Energy-saving, low vibration and low noise front-in drum type washer/dryer

TOSHIBA CONSUMER MARKETING CORPORATION

2-15 Sotokanda 2-Chome, Chiyoda-ku, Tokyo, 101-0021 Japan

Tel; 81-3-3257-6150 Fax;

E-mail;

URL; <http://www.toshiba.co.jp/tcm/>

Category:

- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving
- B7. Usage of Recycled Materials
- C5. Product Use, Maintenance and Repair

The machine is equipped with a high power S-DD motor to which a newly developed neodymium magnet was applied. The use of S-DD motor realized low vibration and low noise; so the comfortable washing is possible even in mid-night. Power consumption for dryness is largely reduced by means of the pre-heating and the high-speed spin-dryness of 1400rpm. Power consumption from washing to dryness decreased to 2500Wh from the previous value of 3260Wh. The drying time is shortened and the wash of 4.5kg can be washed in about 2 hours. Moreover, the use of a circulating pump decreased the amount of water from 79L (the last year model) to 70L, for the washing of 8 kg of clothes.



Products/Model :
The Front in Drum TW-130VB

Eco-products No.034

Home electric appliances/ Lightings

Electric washing machines

Fully Automatic Washer/Dryer Combo with Ag+ Ion Coating

SHARP CORPORATION

22-22, Nagaïke-cho, Abeno-ku, Osaka, 545-8522 JAPAN

Tel; 81-6-6625-0438 Fax; 81-6-6628-1653

E-mail; morishita.masaaki@sharp.co.jp

URL; <http://www.sharp.co.jp>

Category:

- B1. Recyclability
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- B7. Usage of Recycled Materials

A hole-less stainless steel tub enables energy saving operation from washing to drying. Since water does not pour into the outside of the tub due to its hole-free design, the amount of water and detergent used is drastically reduced. The hole-less stainless steel tub keeps heat inside and the temperature of inner tub rise at shorter time. Then it enables energy saving. Standby energy is 0W. We have developed our own technology for the recycling of plastic. Sharp is the first company in the industry to develop the technology of assessing the degraded state of plastic in a simplified way along with characteristic improvement treatment and quality control technology. This allows collected polypropylene to be repeatedly recycled as material for new products. Main board uses lead-free solder.



Products/Model :
Fully Automatic Washer/Dryer Combo ES-TG84V-S

Eco-products No.035

Home electric appliances/ Lightings

Electric cleaning machines

Vacuum Cleaner

Hitachi Home & Life Solutions, inc.

2-15-12 Nishi-Shinbashi, Minato-ku, Tokyo, 105-0003 Japan

Tel; 0120-3121-11 Fax;

E-mail;

URL; <http://www.kandenfan.hitachi.co.jp> (Japanese only)

Category:

- A1. Global Warming
- B2. Longevity
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Realization of compact & light weight cleaner with powerful motor and high reliability. Reduction of body weight¹⁾, saving energy and using non-lead solder for power control board. The highest suction power in this field (as of September, 2004) with same consumption power of former vacuum cleaner (CV-SH10/CV-PH10). Making of long life motor of 5 times²⁾ as long as before (CV-XG20). Saving money for paper bag fee by about ¥2,772³⁾ per year due to no paper bag type (CVXG20/CV-SH10) Realization of big dust capacity about 1.7 times as large as before with the construction of keeping power, and cutting down quantity of using paper bag. (CV-PH10)

- 1) CV-XG20 : Body weight reduction ratio, about 29%, CV-SH10 : about 8%, CV-PH10 : about 13% compared with Hitachi's former same class models
- 2) In case that customer replaces the paper bag (model name GP-110F) one time per a month.
- 3) Comparison with Hitachi's former model CV-WB8 (1999 model)



Products/Model :
CV-XG20

Eco-products No.036

Home electric appliances/ Lightings

Electric cleaning machines

Paper-carton type household vacuum cleaner conforming to the RoHS directive

TOSHIBA TEC CORPORATION

Oval Court Ohsaki Mark East 2-17-2 Higashi Gotanda, Shinagawa-ku,

Tokyo, 141-8664 Japan

Tel; 81-3-6422-7160 Fax; 81-3-6422-7121

E-mail; environment@toshibatec.co.jp

URL; http://www.toshibatec.co.jp/index_e.htm

Category:

- A3. Hazardous Substances
- B1. Recyclability
- B3. Resource Saving
- B5. Energy Saving
- C6. End-of-Life

- To cope with RoHS directive Use of the motor with Cr-free steel sheet, use of the print board with Pb- free solder, etc.
- Resources conservation By the power-keeping system, the anti-plugging of paper pack and the powerful power are lasting double hour; it leads to the reduction of paper pack consumption. Use of recycled paper for the instruction manual and the packaging material.
- Energy saving Realization of the absorption power of 610W that is the performance of top class in the home appliance manufacturers.
- Consideration of living environment Clean exhaust by the aid of the anti-bacterial brush that utilize photo-catalyst and the two kinds of filter-paper.



Products/Model :
VC-T7D

Eco-products No.037

Home electric appliances/ Lightings

Electric cleaning machines

Vacuum cleaner, Energy-saving, High suction power, for domestic

Matsushita Electric Industrial Co., Ltd.

1500 Hayashida-cho, Higashiomi City, Shiga 527-8501 Japan

Tel; 81-748-23-5621 Fax; 81-748-24-1385

E-mail;

URL; http://national.jp/product/house_hold/vacuum/

Category:

- A5. Resource Consumption
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

This vacuum cleaner detects suction dust with a dust sensor and controls power depending on quality of dust automatically. Therefore the power consumption is reduced 50% compared with a vacuum cleaner without dust sensor (which has 1000W power, with high position, without dust sensor). And also thanks to the vibration to beat the dust bag by drawing the power cord it can suck up about double quantity of the dust (compared with our vacuum cleaner MC-S81, 7 years before).



Products/Model :
MC-P3D

Eco-products No.038

Home electric appliances/ Lightings

Electric hot water cleaning seats for toilet

Warm-water washing toilet seat designed to conserve energy

Energy & Healthcare Solutions Divison, Matsushita Electric Industrial Co., Ltd.

800 Tsutsui-cho, Yamatokoriyama City, Nara, 639-1188 Japan

Tel; 81-743-56-8785 Fax; 81-743-56-9934

E-mail;

URL; <http://national.jp/sumai/hp/>

Category:

- A1. Global Warming
- A2. Air Pollution
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

This product realized the greatest level of energy conservation in domestic market through instant heating of washing water and of the seat created with newly-developed high-temperature radiation heater and aluminum isotropic heating material.



Products/Model :
DL-GW70, 50, 40

Eco-products No.039

Home electric appliances/ Lightings

Household electric appliances

Netwalk walkman realized 50 hours continuous playback

Sony Corporation

6-7-35 Kitashinagawa Shinagawa-ku, Tokyo, 141-0001 Japan

Tel; 81-3-5448-2111 Fax; 81-3-5448-2244

E-mail;

URL; <http://www.sony.net>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- A5. Resource Consumption
- B2. Longevity
- B3. Resource Saving

- (1) Standby power consumption is 0.1W or less.
- (2) Lead-free solder is used for soldering in the major parts and accessories.
- (3) Halogenated-free flame retardants are used for the major parts and accessories.
- (4) Non-PVC material is used for the code.
- (5) 100% recycled magazine paper are used for the top layer of the carton, and VOC-free vegetable oil based ink are used.
- (6) Virtual Mobile Engine is installed, which support stamina playback.



Products/Model :

Network Walkman (NW-HD5)

Eco-products No.040

Home electric appliances/ Lightings

Household electric appliances

Dish Washer

Hitachi Home & Life Solutions, inc.

2-15-12 Nishi-Shinbashi, Minato-ku, Tokyo,105-0003 Japan

Tel; 0120-3121-11 Fax;

E-mail;

URL; <http://www.kandenfan.hitachi.co.jp>(Japanese only)

Category:

- A5. Resource Consumption
- B5. Energy Saving
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

Seven-person table service can be washed at one time with less water. Water Saving : The dishwasher uses only approx. 1/14 of water for hand washing! You can save nearly 139 liters of water per operation! Easy to Load : It is easy to put seven-person table service (Dishes: 60 pieces) into.You can wash a day's dishes at one time and save time! Ag+ion Coating for Bacteria Elimination (First-ever in the industry) : Sterilization of dishes and the dishwasher-inside is all together available.



Products/Model :

KF-W70EX

Eco-products No.041

Home electric appliances/ Lightings

Household electric appliances

Vase shaped wood ceramics air purifier

Andes Electric Co., Ltd.

2-672 Choshichiyachi, Ichikawamachi, Hachinohe, Aomori,
039-2241 Japan

Tel; 81-178-20-6488 Fax; 81-178-20-6489

E-mail; y_izumiya@andes.co.jp

URL; <http://www.andes.co.jp/jp/>

Category:

- A2. Air Pollution
- A3. Hazardous Substances
- A4. Waste
- B6. Environmental Purification
- B7. Usage of Recycled Material

Installing "Rectangular column structured TiO₂ photocatalyst unit", our original technology in the vase part, to decompose odor and eliminate bacteria. The vase part, made of wood ceramics and coated with Japanese lacquer (Tshugaru-nuri) being safety for health, can be decomposed and returned to the nature easily.



Products/Model :

Vase shaped wood ceramics air purifier

Eco-products No.042

Home electric appliances/ Lightings

Household electric appliances

Heat Pump Water Heater Using Natural Refrigerant

Energy & Healthcare Solutions Divison, Matsushita Electric Industrial Co., Ltd.

800 Tsutsui-cho, Yamatokoriyama City, Nara, 639-1188 Japan

Tel; 81-743-56-8785 Fax; 81-743-56-9934

E-mail;

URL; <http://national.jp/sumai/hp/>

Category:

- A1. Global Warming
- A2. Air Pollution
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

One-third of the energy consumed by a household is used for heating water. This highly efficient and energy-saving water heater has a heat pump that uses natural refrigerant (CO₂). Its primary energy efficiency has reached 114% and CO₂ emissions are only about half of the amount emitted from a gas water heater.



Products/Model :

HE-37K2QSS

Eco-products No.043

Home electric appliances/ Lightings

Water purifier

Alkaline Ion Water Purifier with a high-power 7-electrode electrolyzer

Matsushita Electric Works, Ltd.

1048 Kadoma, Kadoma City, Osaka, 571-8686 Japan

Tel; 81-6-6908-1131 Fax;

E-mail;

URL; <http://www.mew.co.jp>

Category:

- A1. Global Warming
- B2. Longevity
- B3. Resource Saving
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

[Product features]

- The new "Quick ionization" and "Water saving" modes save approx. 1 ton of water annually.
- The newly adopted "musty odor filter cartridge" removes musty odors as well as lead and torihalomethane.

[Environmental features]

- The standby power consumption has been reduced by approx. 56% from that of our conventional model "PJ-A77" (1.6W → 0.7W).
- Adoption of high-performance activated carbon has elongated the filter life to one year, which previously varied depending on the filtered substance. (Lead/Torihalomethane filtering life: 6 months → 1 year)
- The solenoid valve cuts waste water discharge in the purifying mode, which made up 20% of the total water amount before.



Products/Model :

Alkaline Ion Water Purifier TK7705-S

Eco-products No.044

Home electric appliances/ Lightings

Massage chair

Massage chair for the entire body with low standby power consumption

Matsushita Electric Works, Ltd.

1048 Kadoma, Kadoma City, Osaka, 571-8686 Japan

Tel; 81-6-6908-1131 Fax;

E-mail;

URL; <http://www.mew.co.jp>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

[Product features]

- The "masseur changer function" covers a variety of professional techniques (finger pressure, massage, rubbing, and stretching).
- Three-dimensional 965 massage patterns are available. Four "auto full-body courses" are available for a total massage.
- The massage area has increased by 27% from our conventional model "EP2110".

[Environmental features]

- The power switch (relay) cuts the power supply to the motor during standby mode, reducing the standby power consumption by approx. 90% from that of our conventional model "EP2110" (5W → 0.5W).
- All components used for this product (including electronic components and their electrodes, soldered joints, and harnesses) are free from lead.



Products/Model :

REAL PRO X EP3510-K

Eco-products No.045

Home electric appliances/ Lightings

Air Purifier

Air purifier using Plasmacluster ion technology

SHARP CORPORATION

22-22, Nagaïke-cho, Abeno-ku, Osaka, 545-8522 JAPAN

Tel; 81-6-6625-0438 Fax; 81-6-6628-1653

E-mail; morishita.masaaki@sharp.co.jp

URL; <http://www.sharp.co.jp>

Category:

- B2. Longevity
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- B6. Environmental Purification

Newly developed "Plasmacluster Ion Shower" inactivates airborne mold fungi and harmful bacteria as well as removes drifting house dust in interior spaces by releasing a burst of powerful Plasmacluster Ions in a shower-like pattern into the air. DC motor and inverter control contribute to reduce energy consumption and achieve an annual electric bill of about 580 yen. (This is calculated based on power consumption during silent running and power charge per unit of 22 yen/kWh (tax included) as a rough standard.) A standby power consumption is 0.3W. We have discontinued the use of specific bromine fire retardant. Vegetative soya ink and recycled paper are used for the instruction manual. We also applied fire retardant resin to the body and a bicapsular cabtyre cord to allow the product to be placed on the floor.



Products/Model :

Air Purifier FU- S51CX-W

Eco-products No.046

Home electric appliances/ Lightings

Dishwasher

Dishwasher, Hard Water Ion Washing, Reducing Detergent and Water

SHARP CORPORATION

22-22, Nagaïke-cho, Abeno-ku, Osaka, 545-8522 JAPAN

Tel; 81-6-6625-0438 Fax; 81-6-6628-1653

E-mail; morishita.masaaki@sharp.co.jp

URL; <http://www.sharp.co.jp>

Category:

- B2. Longevity
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- B7. Usage of Recycled Materials

This dishwasher is equipped with a detergent-free option. It incorporates an "ion course" that allows dishes to be thoroughly cleaned in hard water without the use of detergent for regular wash. It incorporates a "powerful ion course" for much tough wash on chopping board for sallow and tea stains. It realizes 1/15 less water consumption. Power supply cord doesn't include lead or DOP. PVC is phased out from plastic material and coating material. Easy separation and disassemble. Metal is used for outer cabinet and polypropylene for washing unit for easy recycling.



Products/Model :

Dishwasher QW-SL1-W

Eco-products No.047

Home electric appliances/ Lightings

Household Kitchen Waste Composter

"Composting Bio Mix" Household Kitchen Waste Composter

SHARP CORPORATION

22-22, Nagaïke-cho, Abeno-ku, Osaka, 545-8522 JAPAN

Tel; 81-6-6625-0438 Fax; 81-6-6628-1653

E-mail; morishita.masaaki@sharp.co.jp

URL; <http://www.sharp.co.jp>

Category:

- A4. Waste
- B2. Longevity
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving

Proprietary Composting Bio Mix breaks down organic kitchen waste, dramatically reducing disposal volume and minimizing odors during processing. Reduces the volume of kitchen waste (more than 92%*1 in 24 hours). Energy efficient with low power use based on a composting system that operates at room temperatures. (Electricity costs : Approximately 300yen /month*2) Lead-free solder is used for all circuit boards. Vegetative soy ink and recycled paper are used in the instruction manual.

*1 When processing a standard 700 grams of organic kitchen waste at an ambient temperature of 20C.

*2 Calculated based on the New Electric Utility Benchmark Price for Electricity of ¥22/kWh (including tax) when processing 700 g/day of ordinary organic kitchen waste at an ambient temperature of 20C with catalytic deodorization OFF.



Products/Model :

Household Kitchen Waste Composter NP-40CX-S

Eco-products No.048

Home electric appliances/ Lightings

Fluorescent lamps

Screw-in fluorescent lamp "spiraLUPICA"

MITSUBISHI ELECTRIC OSRAM Ltd.

Tobu Yokohama Bldg.No.3(4F) 8-29, Kita-Saiwai 2-chome, Nishi-ku

YOKOHAMA, 220-0004 Japan

Tel; 81-45-323-5187 Fax; 81-45-323-5156

E-mail;

URL; <http://www.mol-oml.co.jp>

Category:

- A5. Resource Consumption
- B2. Longevity
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"spiraLUPICA" is the compact screw base fluorescent lamp. This enable to save energy by replacing from incandescent lamp. Also the lifetime of spiraLUPICA is longer than that of incandescent lamp. Spiral shaped inner bulb realize the compact size similar like general incandescent lamp. Light output just after switching on of this product is brighter than that of our conventional products. (A15 type, G15 type) UV radiation, which attracts unwanted insects or causes color fading, is remarkably reduced. (A15 type)

- Consumption energy is about a quarter of incandescent lamp.
- Lifetime of this products is 6 times longer than incandescent lamp. (A15 type)
- Heating value is about a quarter of incandescent lamp.
- Luminous flux right after turning on achieves to about 40% of spec value. (A15 type and G15 type)



Products/Model :

spiraLUPICA A15 type

Eco-products No.049

Home electric appliances/ Lightings

Fluorescent lamps

EFA-series bulb-type new fluorescent lamp for energy saving

TOSHIBA LIGHTING & TECHNOLOGY CORPORATION

1-201-1, Funakoshi-Cho, Yokosuka-shi, Kanagawa, 237-8510 Japan

Tel; 81-46-862-2159 Fax; 81-46-860-1203

E-mail; toshiya.tanaka@tlt.co.jp

URL; <http://www.tlt.co.jp/>

Category:

- A3. Hazardous Substances
- A5. Resource Consumption
- B2. Longevity
- B3. Resource Saving
- B5. Energy Saving

The size of 60W bulb (EFA15/12-RJ) is 55mm in outer diameter and 109mm in length, which is the same in length as that of the 60W white lamp (LW100V57WJ), but rather slim. The bulb of 40W (EFA10/8-RJ) has the same form as that of the 40W white lamp (LW100V36W). Power consumption of these bulbs is 1/5 of that of the conventional filament lamp and their lives are 6 times longer than 1000 hours of the conventional filament lamp. The glass material is Pb-free glass and the circuit was soldered by use of Pb-free solder. A large non-emission area near the clasp portion was reduced and almost similar light distribution as that of the conventional filament lamp was attained. As a result, the necessity to develop a special acceptor of the clasp was lost. Moreover, disappeared was the discomfort that users may feel particularly for the distribution of light.



Products/Model :

EFA15series(left), EFA10series(right)

Eco-products No.050

Home electric appliances/ Lightings

Household Lighting equipment

Eco-friendly Household Lighting equipment

TOSHIBA HOMELIGHTING CO., LTD.

3-21, 1-Chome, Bunkyo-ku, Tokyo, 112-0002 Japan

Tel; 81-3-5805-5048 Fax; 81-3-3818-8095

E-mail; info.jyusyo@tlt.co.jp

URL; <http://www.tlt.co.jp/>

(<http://www.tlt.co.jp/tlt/akari/homehome/homehome.htm>)

Category:

- B2. Longevity
- B3. Resource Saving
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"How can we produce lights that use the earth's finite resources more efficiently?" That question paved the way for the development of Neoslim. It achieves excellent resource saving - to say nothing of energy saving - at every stage of material supply, assembly and packaging. The amount of both glass and packaging materials has been reduced by roughly 45%.



Products/Model :

NEOSLIM V

Eco-products No.051

Home electric appliances/ Lightings

Fluorescent lamp

Industry's first fluorescent lamp for office to energy and resource-saving

TOSHIBA LIGHTING & TECHNOLOGY CORPORATION

Minamishinagawa JN Bldg, 2-13, Minamishinagawa 2-Chome,
Shinagawa-ku, Tokyo, 140-8660 Japan
Tel; 81-3-5463-8800 Fax;
E-mail;
URL; <http://www.tlt.co.jp/>

Category:

- A5. Resource Consumption
- B2. Longevity
- B3. Resource Saving
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"NEOSLIM-Z SQUARE" is a square fluorescent lamp designed for high frequency operation in offices (ceiling-fitment) and is industry-first in energy-saving and resource-saving.

- (1) High efficiency : we achieved lamp efficiency of 103 lm/W at 35 °C ambient temperature.
- (2) High luminous flux : 7200 lm, providing brightness equivalent to that of four 20W tubular type fluorescent lamps.
- (3) Long life : rated-life of 15,000 hours.(Conventional fluorescent lamps have a life of 6,000 hours for circular, 8,500-12,000 hours for tubular type, respectively.)
- (4) Resource-saving : Uses a slim tube with a diameter of 16mm. (Tube diameter of current fluorescent lamps is 25mm-32.5mm.)



Products/Model :
NEOSLIM Z SQUARE FHG70EN

Eco-products No.052

Home electric appliances/ Lightings

Compact Self-Ballasted Fluorescent Lamp

Energy saving compact self-ballasted fluorescent lamp

TOSHIBA LIGHTING & TECHNOLOGY CORPORATION

Minamishinagawa JN Bldg, 2-13, Minamishinagawa 2-Chome,
Shinagawa-ku, Tokyo, 140-8660 Japan
Tel; 81-3-5463-8786 Fax; 81-3-5463-8829
E-mail; takahiro.nishio@tlt.co.jp
URL; http://www.tlt.co.jp/tlt/index_j.htm

Category:

- A1. Global Warming
- B2. Longevity
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving

Power consumption/energy requirement is reduced 80% compared with an incandescent lamp. Lamp life is six times longer than that of an incandescent lamp.



Products/Model :
EFD13D/65-E3U

Eco-products No.053

Home electric appliances/ Lightings

Circular fluorescent lamp fixtures

High-efficiency flickerless inverter ceiling lamp

Matsushita Electric Works,(Ayuthaya)Ltd.

1/69 Moo 5 Rojana Industrial Park, T.Kanham, A.Uthai, 13210 Thailand

Tel; 66-3533-0846 Fax; 66-3522-6369

E-mail;

URL; <http://www.mew.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

[Power-saving] The inverter circuit converts 50Hz alternating current to approx. 50,000Hz high frequency current, which increases the number of collisions (light emissions) between mercury atoms and electrons in the fluorescent lamp, efficiently converting electricity into light. The power consumption has been reduced by approx. 25% from that of the conventional glow-starter magnetic ballast type without changing the brightness. (32W glow-starter type: Approx. 41W, Inverter type: Approx. 30W)

[Need no glow starter] Since the inverter type turns on the lamp by electronic control, it does not need a glow starter, which has been required for the conventional type. Replacement work and waste were eliminated.

[Quick lighting] This lamp is lit quickly when the switch is turned on. Stress applied on the lamp is less than the conventional type, which starts lighting after flickering, making the lamp life longer.

[Flickerless] The lighting frequency is as high as approx. 50,000Hz. This lamp is easier on the eyes than the conventional type, which flickers 100 times per second.



Products/Model :
HAT9502E (32W type)

Eco-products No.054

Home electric appliances/ Lightings

Electric lighting fixtures

Longer Lamp Life & Eco Lighting: Fluorescent Digital Starter

DCT Co., Ltd.

3-15-6 Higashi Shibuya-ku Tokyo, 150-0011 Japan

Tel; 81-3-5468-7131 Fax; 81-3-5468-7399

E-mail; info@dct-web.co.jp

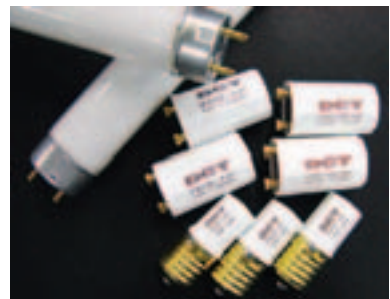
URL; <http://www.dct-web.co.jp>

Category:

- A3. Hazardous Substances
- A4. Waste
- B2. Longevity
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Don't you have the problem of frequent replacement of fluorescent lamps and glow starters in your buildings and elevators? Don't you have the problem of disposing heaps of lamps out of use that contain toxic mercury? Here is a solution to these problems. The Digital Starter Pro has a built-in microcomputer chip for software control of emitter diffusion in lighting the lamp. It offers maintenance-free outsourcing service by drastically extending lamp service life up to 30 times longer than the conventional glow starter. The longer lamp life directly leads to save environment by minimizing the number of fluorescent lamp wastes. Moreover, Digital Starter Pro facilitates the diligent turn on/off of lamps in order to achieve greater energy saving. Features

1. Advanced digital circuit assures optimum electrode preheating time.
2. Multi pulse lighting system assures reliable lighting even under severe environment.
3. Instantaneous lighting.
4. Automatic relighting function makes retries to light lamps in the event of momentary voltage drop.
5. Double protection function is a safety protection system with automatic power cut off feature for lamps near the end of their service life.



Products/Model :
Digital Starter Pro series. FDS-1E. 1P.4P/5P

Eco-products No.055

Home electric appliances/ Lightings

Office Lighting Fixture

High-efficiency office luminaire offering both energy and resource savings

TOSHIBA LIGHTING & TECHNOLOGY CORPORATION Electric Products Equipment Division

Minamishinagawa JN Bldg, 2-13, Minamishinagawa 2-Chome,
Shinagawa-ku, Tokyo, 140-8660 Japan

Tel; 81-3-5463-8769 Fax; 81-3-5463-8824

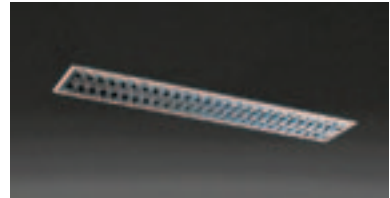
E-mail;

URL; <http://www.tlt.co.jp/>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B3. Resource Saving
- B5. Energy Saving
- C3. Design and Material selection

White steel plates and aluminum mirror plates with a 90% reflection factor are used as reflectors, contributing to the high efficiency of this product. To reduce the environmental burden, it uses materials such as chromium-free steel plates, lead-free electric wire and soft solder. It uses less raw material thanks to a reduction in equipment size and weight, and partial packaging. The luminaire has universal voltage so it can be used with power supply voltages ranging from 100V to 242V.



Products/Model :

FHR-42941K-PH9

Eco-products No.056

Home electric appliances/ Lightings

Lighting Fixture

Energy saving HID lighting fixture for high-ceilinged rooms

TOSHIBA LIGHTING & TECHNOLOGY CORPORATION Electric Products Equipment Division

Minamishinagawa JN Bldg, 2-13, Minamishinagawa 2-Chome,
Shinagawa-ku, Tokyo, 140-8660 Japan

Tel; 81-3-5463-8776 Fax; 81-3-5463-8824

E-mail;

URL; <http://www.tlt.co.jp/>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

High-color-rendering 250W NEOCERA lamp (offering the best lamp efficiency in the industry) and newly developed reflective film, make this product one of the best lamps in the industry in terms of light output ratio and allows you to reduce the number of lights installed. The product also cuts energy use by about 52% compared with others such as 400W mercury lamp+adaptive accessories in high-ceilinged facilities. An inverter equipped with 100% – 50% continuous dimming function also contributes to energy saving by offering flexible lighting control.



Products/Model :

DD-25101FK-DPM2

Eco-products No.057

Home electric appliances/ Lightings

Emergency Lighting fixture

Emergency Lighting Fixture with fewer substances related to RoHS Directive

TOSHIBA LIGHTING & TECHNOLOGY CORPORATION Electric Products Equipment Division
Minamishinagawa JN Bldg, 2-13, Minamishinagawa 2-Chome,
Shinagawa-ku, Tokyo, 140-8660 Japan
Tel; 81-3-5463-8769 Fax; 81-3-5463-8824
E-mail;
URL; <http://www.tlt.co.jp/>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B3. Resource Saving
- C3. Design and Material selection
- C6. End-of-Life

The main body consists of a chrome-free steel plate without any soil pollutant. The lighting unit is a halogen-free plate without any dioxin emission substance. Lead-free wire is used in electric wires inside the lighting fixture to cut down toxic substances. The emergency battery is a cadmium-free nickel hydride battery.



Products/Model :
IEM-18321HN

Eco-products No.058

Home electric appliances/ Lightings

DVD Video Recorder

HDD & DVD Recorder with Dual Layer Disc Compatibility

PIONEER CORPORATION
4-1 Meguro 1-chome, Meguro-ku, Tokyo, 153-8654 Japan
Tel; 81-3-3494-1111 Fax;
E-mail;
URL; <http://www.pioneer.co.jp>

Category:

- A3. Hazardous Substances
- B3. Resource Saving
- B5. Energy Saving
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

Compatible with dual layer discs, it realizes a maximum 24 hours continuous picture recording and has achieved the highest 100 times dubbing speed. These features allow the generation of an unnecessary storage disc to be restrained, thus contributing to resource savings. It also has an energy saving design with 0.38W standby power consumption (at light-out time). Thanks to a 5.9cm high low-profile design, it reduces the burden on transportation and the like. In addition, it also adopts lead-free solder.



Products/Model :
HDD & DVD RECORDER DVR-530H

Eco-products No.059

Home electric appliances/ Lightings

DVD Video Recorder

DVD Video Recorder, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Equipped with a special function to record into HDD two different channel programs during the same broadcast time, named "Double Recording". Circuit is highly integrated to conserve energy. Compact and light weight design employed for circuit boards and key components. Chromium-free steel used for chassis and upper panels, and lead-free solder used for printed circuit boards of the main unit for environmental preservation.



Products/Model :

DVD Video Recorder, DMR-E330/220H-S

Eco-products No.060

Home electric appliances/ Lightings

DVD Video Recorder

DVD Video Recorder, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Newly developed high definition circuit "Diga engine II" realizes as high resolution as standard(SP) mode even recorded in longtime (LP) mode. Limited disc capacity can be utilized effectively because high definition images can be recorded for long time. Circuit has been integrated to promote energy saving, and compactness of circuit boards and fundamental parts has been improved. Furthermore, we are environmentally conscious by taking measures such as employing chrome-free steel plate for chassis and top panel and employing lead-free solder in mounting main printed circuit board.



Products/Model :

DVD Video Recorder, DMR-EH60/50-S

Eco-products No.061

Home electric appliances/ Lightings

DVD Video Recorder

DVD Video Recorder, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Newly developed high definition circuit "Diga engine II" realizes as high resolution as standard (SP) mode even recorded in longtime (LP) mode. Limited disc capacity can be utilized effectively because high definition images can be recorded for long time. The recorder has quadruple functions of HDD, DVD, VHS and SD. Circuit has been integrated to promote energy saving, and compactness of circuit boards and fundamental parts has been improved. Furthermore, we are environmentally conscious by taking measures such as employing chrome-free steel plate for chassis and top panel and employing lead-free solder in mounting main printed circuit board.



Products/Model :

DVD Video Recorder, DMR-EH70V-S

Eco-products No.062

Home electric appliances/ Lightings

DVD Video Recorder

DVD Video Recorder, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Newly developed high definition circuit "Diga engine II" realizes as high resolution as standard (SP) mode even recorded in longtime (LP) mode. Limited disc capacity can be utilized effectively because high definition images can be recorded for long time. Circuit has been integrated to promote energy saving, and compactness of circuit boards and fundamental parts has been improved. Furthermore, we are environmentally conscious by taking measures such as employing chrome-free steel plate for chassis and top panel and employing lead-free solder in mounting main printed circuit board.



Products/Model :

DVD Video Recorder, DMR-ES10-S

Eco-products No.063

Home electric appliances/ Lightings

DVD Video Recorder

DVD Video Recorder, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.

1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan

Tel; 81-6-6905-8356 Fax; 81-6-6905-4755

E-mail;

URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Newly developed high definition circuit "Diga engine II" realizes as high resolution as standard (SP) mode even recorded in longtime (LP) mode. Limited disc capacity can be utilized effectively because high definition images can be recorded for long time. You can enjoy double functions of DVD and VHS. Circuit has been integrated to promote energy saving, and compactness of circuit boards and fundamental parts has been improved. Furthermore, we are environmentally conscious by taking measures such as employing chrome-free steel plate for chassis and top panel and employing lead-free solder in mounting main printed circuit board.



Products/Model :

DVD Video Recorder DMR-ES30V-S

Eco-products No.064

Home electric appliances/ Lightings

Video cameras

DVD Camcorder using lead-free solder

Sony Corporation

6-7-35 Kitashinagawa Shinagawa-ku, Tokyo, 141-0001 Japan

Tel; 81-3-5448-2111 Fax; 81-3-5448-2244

E-mail;

URL; <http://www.sony.net>

Category:

- A3. Hazardous Substances
- B4. Higher Quality
- B5. Energy Saving

- (1) Lead-free solder are used for soldering.
- (2) 100% recycled paper and VOC-free vegetable oil based ink are used for the carton.
- (3) Halogenated-free flame retardants are used for the cabinet.
- (4) Corrugated cardboard is used for the packaging cushions.



Products/Model :

Digital Handycam (DCR-DVD403)

Eco-products No.065

Home electric appliances/ Lightings

Video cameras

DVD VIDEO CAMERA

Hitachi Industries co., Ltd

9-7 Ikenohata 2-chome, Taito-ku, Tokyo, 110-0008 Japan

Tel; 81-3-5814-5611 Fax; 81-3-5814-5627

E-mail;

URL; <http://www.hitachi-hic.com>

Category:

- A1. Global Warming
- B1. Recyclability
- B4. Higher Quality
- B5. Energy Saving

DVD cam birth with the continuation skill! compact size which makes, which sees, to photographs. Light emitting diode system is reduced adoption and 12% of amount of used electricity to the back light of a liquid crystal display monitor. Non halogen board and lead free solder are adopted as a circuit board. Recyclable corrugated paper is adopted as the cushion of packing material.



Products/Model :
DZ-MV580

Eco-products No.066

Home electric appliances/ Lightings

Video cameras

LCD Digital Camcorder, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.

1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan

Tel; 81-6-6905-8356 Fax; 81-6-6905-4755

E-mail;

URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Standby power consumption of AC adaptor reduced to 0.1W by our minimal power consumption circuit technology. Circuit is highly integrated to conserve energy. Compact and light weight design employed for circuit boards and key components. Lead-free solder used for printed circuit boards of the main unit for environmental preservation.



Products/Model :
LCD Digital Camcorder, NV-GS150-S

Eco-products No.067

Home electric appliances/ Lightings

Video cameras

LCD Digital Camcorder, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Standby power consumption of AC adaptor reduced to 0.1W by our minimal power consumption circuit technology. Circuit is highly integrated to conserve energy. Compact and light weight design employed for circuit boards and key components. Lead-free solder used for printed circuit boards of the main unit for environmental preservation.



Products/Model :
LCD Digital Camcorder, NV-GS250-S

Eco-products No.068

Home electric appliances/ Lightings

Video cameras

Built-in hard disc type camcorder "Everio", Extraordinary longtime recording

Victor Company of Japan, Ltd.
3-12, Moriya-cho, Kanagawa-ku, Yokohama, 221-8582 Japan
Tel; 81-45-450-2585 Fax; 81-45-453-1655
E-mail;
URL; <http://www.jvc-victor.co.jp/english/global-e.html>

Category:

- A4. Waste
- A5. Resource Consumption
- B3. Resource Saving
- C1. Materials Extraction
- C6. End-of-Life

Main body built-in type 1.8 inch high-capacity small hard disc, where no replacement is needed, is employed as recording medium. Recording capacity is equivalent to 22 DVDs (for 8cm DVD with 1.4GB on one side). Maximum recording capacity: 37 hours and 30 minutes for video and 9,999 still images. Equipped with 3D acceleration sensor that protects hard disc from impact.



Products/Model :
Built-in hard disc camcorder Everio GZ-MC500

Eco-products No.069

Home electric appliances/ Lightings

Digital cameras

Digital still camera

Sony Corporation

6-7-35 Kitashinagawa Shinagawa-ku, Tokyo, 141-0001 Japan

Tel; 81-3-5448-2111 Fax; 81-3-5448-2244

E-mail;

URL; <http://www.sony.net>

Category:

- A3. Hazardous Substances
- A5. Resource Consumption
- B1. Recyclability

- (1) Lead-free solder is used for soldering.
- (2) Carton is made from 100% recycled paper, and is printed using VOC(Volatile Organic Compound)-free vegetable oil based ink.
- (3) Cabinet plastic and the printed wiring boards do not contain halogenated flame retardants.
- (4) Corrugated board is used for the packaging cushion instead of polystyrene form.



Products/Model :

Dital Still Camera (DSC-W1)

Eco-products No.070

Home electric appliances/ Lightings

Digital cameras

Digital Camera, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.

1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan

Tel; 81-6-6905-8356 Fax; 81-6-6905-4755

E-mail;

URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Achieved stand-by power consumption of 1.6W (reduced by 30% compared with our current model DMC-FX7) due to low power circuit technology. Power saving performance realizing about 300 continuous shots. Circuit has been integrated to promote energy saving, and compactness and light weight of circuit boards and fundamental parts have been improved. Additionally, we are environmentally concious by taking measures such as employing lead-free solder in mounting main printed circuit board.



Products/Model :

Digital Camera, DMC-FX8

Eco-products No.071

Home electric appliances/ Lightings

Digital cameras

Digital Camera, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Achieved stand-by power consumption of 2.1W (reduced by 4% compared with our current model DMC-FZ3) due to low power circuit technology. Circuit has been integrated to promote energy saving, and compactness and light weight of circuit boards and fundamental parts have been improved. Additionally, we are environmentally concious by taking measures such as employing lead-free solder in mounting main printed circuit board.



Products/Model :
Digital Camera, DMC-FZ5

Eco-products No.072

Home electric appliances/ Lightings

Digital cameras

Digital Camera, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Achieved stand-by power consumption of 1.5W (reduced by 6% compared with our current model DMC-LC70) due to low power circuit technology. Circuit has been integrated to promote energy saving, and compactness and light weight of circuit boards and fundamental parts have been improved. Additionally, we are environmentally concious by taking measures such as employing lead-free solder in mounting main printed circuit board.



Products/Model :
Digital Camera, DMC-LS1

Eco-products No.073

Home electric appliances/ Lightings

Digital cameras

Digital Camera, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Achieved stand-by power consumption of 1.4W (reduced by 12% compared with our current model DMC-LC70) due to low power circuit technology. Circuit has been integrated to promote energy saving, and compactness and light weight of circuit boards and fundamental parts have been improved. Additionally, we are environmentally conscious by taking measures such as employing lead-free solder in mounting main printed circuit board.



Products/Model :
Digital Camera, DMC-LZ2

Eco-products No.074

Home electric appliances/ Lightings

Electronic equipment, n.e.c.

Low-Power-Consumption/Low-Profile DVD Player

PIONEER CORPORATION

4-1 Meguro 1-chome, Meguro-ku, Tokyo, 153-8654 Japan
Tel; 81-3-3494-1111 Fax;
E-mail;
URL; <http://www.pioneer.co.jp>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B5. Energy Saving
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

In addition to the high performance "12 bit image DAC" for an improved picture, it also realizes low power consumption, 7W electric power consumption and 0.5W standby power consumption, consequently contributing to restraints in CO₂ emissions. Thanks to a 19.5mm high low-profile design, it reduces the amount of materials used and eliminates burdens on transport and the like. In addition, it adopts lead-free solder.



Products/Model :
DVD Player DV-484

Eco-products No.075

Home electric appliances/ Lightings

Primary batteries

Mercury-Free Silver Oxide Batteries

Sony Corporation

6-7-35 Kitashinagawa Shinagawa-ku, Tokyo, 141-0001 Japan

Tel; 81-3-5448-2111 Fax; 81-3-5448-2244

E-mail;

URL; <http://www.sony.net>

Category:

- A3. Hazardous Substances
- B4. Higher Quality
- C1. Materials Extraction
- C3. Design and Material selection
- C6. End-of-Life

Silver oxide batteries, used in wristwatches, and other small products, traditionally contain mercury to prevent the generation of hydrogen gas; a cause of the deterioration of batteries. Because the production of silver oxide batteries without mercury has generally been seen as unfeasible, the use of mercury in these batteries is exempted, due to the difficulty in realizing it*1. Sony has been conducting research with the aim of realizing mercury-free silver oxide batteries since the 1990s. These efforts led to the development of three key technologies; a new zinc alloy powder, a new anticorrosion material in the anode and a new anti-corrosion process onto the collector. These technologies have facilitated the production of mercury-free batteries that deliver equal safety and performance as their conventional batteries. In 2004, Sony became the first company in the world to commercialize mercury-free silver oxide batteries, launching 10 models that represent approximately 80% of its total output of silver oxide batteries.

*1:Exemption under the proposed new EU Battery Directive before the EU Parliament and its Environment Committee (as of March 2005)



Products/Model :

SR626SW mercury-free silver oxide battery

Eco-products No.076

Home electric appliances/ Lightings

Facsimiles

Plain paper personal facsimile, Energy conservation, Natural resources

Panasonic Communications Co., Ltd.

4-1-62 Minoshima, Hakata-Ku, Fukuoka, 812-8531 Japan

Tel; 81-92-477-1103 Fax; 81-92-477-1488

E-mail;

URL; <http://panasonic.co.jp/pcc/index.html>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B5. Energy Saving

- Succeeded in reducing the product size through space-saving printed circuit boards and minimization of the size of motors.
- Reduced power consumption by energy-conservation design.
- Reduced environmental load by using chrome-free surface processed steel, in addition to lead-free solder used for mounting printed circuit boards which is already employed in conventional models.



Products/Model :

KX-PW603DL

Eco-products No.077

Home electric appliances/ Lightings

Television receivers

High-Definition Plasma Television with reduced power consumption

PIONEER CORPORATION

4-1 Meguro 1-chome, Meguro-ku, Tokyo 153-8654 Japan

Tel; 81-3-3494-1111 Fax;

E-mail;

URL; <http://www.pioneer.co.jp>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

PDP-435SX was awarded the Energy Conservation Grand Prize of 2004 in Japan (Organizer: Energy conservation Center, Japan), with admiration of the best energy-saving performance in all Flat displays. The realization of both brightness 2.9 times and a reduction of the power consumption 30%, in comparison with the first model ('97) at 50-type plasma TV. So Pioneer attained the minimum power consumption of 306W as a 43V-type plasma TV by using of this technology. Moreover, the direct color filter system of original development, that eliminated a glass from the composition of a color filter, realized large saving resources and weight.



Products/Model :

43V-type High-Definition Plasma TV PDP-435SX

Eco-products No.078

Home electric appliances/ Lightings

Television receivers

High-quality, Energy-saving and easy-to-use Color Television

Mitsubishi Electric Corporation

2-2-3 Marunouchi, Chiyoda-ku, Tokyo, 100-8310 Japan

(after 07/Nov./2005 it will be changed to 2-7-3)

Tel; +81-3-3218-9024 Fax; +81-3-3218-2465

E-mail; eqd.eco@hq.melco.co.jp

(eqd.eco@pj.MitsubishiElectric.co.jp (after 7/Nov./2005))

URL; <http://www.MitsubishiElectric.co.jp/corporate/eco/index.html>

Category:

- A4. Waste
- B1. Recyclability
- B5. Energy Saving
- B7. Usage of Recycled Materials
- C5. Product Use, Maintenance and Repair

The company is striving to develop eco-products that reduce environmental impact throughout their life cycle by establishing environmental goals based on MET: That is, Materials should be effectively exploited, Energy should be efficiently used, and Toxic substances should be reduced. A 3R product assessment is made for design and development which looks at green procurement and reducing plastics/packaging materials and power consumption.



Products/Model :

25T-D104S

Eco-products No.079

Home electric appliances/ Lightings

Television receivers

Plasma Display Television

Hitachi, Ltd. Ubiquitous Platform Group

2-2-1 Ohte-machi, Chiyoda-ku, Tokyo, 100-0004 JAPAN

Tel; 0120-3121-11 Fax; 0120-3121-34

E-mail;

URL; <http://av.hitachi.co.jp>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B2. Longevity
- B4. Higher Quality
- B5. Energy Saving

Faithfully reproduces the fine resolution of digital high-definition television.

- 50% decrease in energy consumption while in standby mode compared to previous models, due to high efficiency of the standby power and changes to the control of the microcontroller.
- Uses environmentally friendly materials such as lead-free solder and power cord sheathing, chrome-free steel plates, vinyl-free materials, and halogen-free chassis.
- Promotes a longer life span with the ALIS Method*3, which decreases the burden on fluorescent materials compared to ordinary panels.
- Model promoting the RoHS Directive*1 and WEEE Directive*2 (as of March 2005).

*1 Europe's Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment directive.

*2 Europe's Waste Electrical and Electronic Equipment directive.

*3 The odd and even lines of electrically discharged electrodes are alternatively emitted, enabling a high-resolution vertical display of 1024 pixels and high precision.



Products/Model :
W42-P7000

Eco-products No.080

Home electric appliances/ Lightings

Television receivers

Megapixel ALIS High Definition Plasma TV : Energy Saving

Hitachi, Ltd. Digital Media Division

292 Yoshida-cho, Totsuka-ku, Yokohama, 244-0817 Japan

Tel; Fax;

E-mail;

URL; <http://www.hitachi.co.jp/>

Category:

- A1. Global Warming
- B2. Longevity
- B5. Energy Saving
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

The high definition TV realizes approximately 1.05 million pixels (1024 × 1024) and achieves the highest level brightness (white peak, panel element) of 1400cd/m².

[Energy Saving]

Compared to its previous model, this environment friendly TV consumes approximately 30% less power annually.

[Design & Component Production]

It is equipped with lead-free printing board, halogen-free chassis, and chrome-free materials.

[Product Use]

Power down function is activated automatically when the running TV has been left for a certain period.

[Longevity]

Megapixel ALIS Panel realizes about 60000 hours of panel life.



Products/Model :
Plasma TV: W42P-H8000, Stand: TP-4237WST

Eco-products No.081

Home electric appliances/ Lightings

Television receivers

Digital Hi-Vision TV, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B1. Recyclability
- B5. Energy Saving
- B7. Usage of Recycled Materials
- C5. Product Use, Maintenance and Repair

Annual power consumption (kWh/year) reduced by approx. 28% (compared to our previous model TH-32/28D10). Standby power consumption reduced to approx. 0.08W. Lead-free solder used for printed circuit boards of the main unit.



Products/Model :

Digital Hi-Vision TV, D65 Series TH-32/28D65

Eco-products No.082

Home electric appliances/ Lightings

Television receivers

Digital Hi-Vision Plasma TV, Energy saving, Hazardous subs., Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Annual power consumption (kWh/year): Reduced by approx. 35% (TH-37PX500, compared with our conventional model TH-37PX300). Achieved stand-by power consumption of approx. 0.1W. Long lifetime design of plasma panel: Approx. 60,000 hours. Lead-free solder is employed in mouting main printed circuit board.



Products/Model :

Digital Hi-Vision Plasma TV, TH-50/42/37PX500

Eco-products No.083

Home electric appliances/ Lightings

Television receivers

Projection TV realizing high brightness, high definition and energy saving

Victor Company of Japan, Ltd.

3-12, Moriya-cho, Kanagawa-ku, Yokohama, 221-8528 Japan

Tel; 81-45-450-2585 Fax; 81-45-453-1655

E-mail;

URL; <http://www.jvc-victor.co.jp/english/global-e.html>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B1. Recyclability
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Reflective device of high light utilization ratio providing significant brightness is employed, and three-chip digital drive where D-ILA device equivalent to three RGBs is combined is employed. This achieved bright and natural color reproduction. The TV is also equipped with "Easy-to-listen" function by which user can hear announcers' voice "slowly" and "clearly".



Products/Model :

Projection TV HD-61MD60/HD52MD60

Eco-products No.084

Home electric appliances/ Lightings

Television receivers

Energy-Efficient Digital HDTV—Happy Wega Series

Sony Corporation

6-7-35 Kitashinagawa Shinagawa-ku, Tokyo, 141-0001 Japan

Tel; 81-3-5448-2111 Fax; 81-3-5448-2244

E-mail;

URL; <http://www.sony.net>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B5. Energy Saving
- B3. Resource Saving
- B4. Higher Quality

Sony's Happy Wega KDL-S series of digital high-definition televisions boasts: a high-performance one-chip video processor, in which all circuits are on a single chip; a special heat-dissipating steel casing that eliminates the need for a fan; and an audio system that combines a digital amplifier and a high-aperture ratio speaker grill. These and other outstanding technologies enable the Happy Wega series to offer a winning combination of low power consumption, outstanding picture and sound quality, and low running noise. The Happy Wega series also realizes a significant improvement in standby power consumption, down to 0.15W, from 0.8W for previous Wega models. Other powersaving features include a luminance detection circuit, which automatically adjusts the brightness of the screen in response to the brightness of the environment, and an auto-shutoff feature, which automatically switches the television to standby mode if there is no broadcast or input signal for a specified amount of time.



Products/Model :

Digital high-definition TV: KDL-S32A10

Eco-products No.085

Home electric appliances/ Lightings

Television receivers

Location free television

Sony Corporation

6-7-35 Kitashinagawa Shinagawa-ku, Tokyo, 141-0001 Japan

Tel; 81-3-5448-2111 Fax; 81-3-5448-2244

E-mail;

URL; <http://www.sony.net>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B1. Recyclability
- A5. Resource Consumption
- B5. Energy Saving

Energy consumption of 22W in play mode. Lead-free solder is used for soldering. Halogenated flame retardants are not used in cabinet and printed wiring boards. PVC is not used for the internal wiring. Corrugated boards is used for the packaging cushions.



Products/Model :

LF-X5 Location free television

Eco-products No.086

Home electric appliances/ Lightings

Television receivers

45V Ground and BS, 110 CS digital high-definition LCD television

SHARP CORPORATION

22-22, Nagaïke-cho, Abeno-ku, Osaka, 545-8522 JAPAN

Tel; 81-6-6625-0438 Fax; 81-6-6628-1653

E-mail; morishita.masaaki@sharp.co.jp

URL; <http://www.sharp.co.jp>

Category:

- B1. Recyclability
- B2. Longevity
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving

45V type extended high definition TV equipped with high-definition liquid crystal panel of 6.22 million dots. High-quality sound generated from 1-bit digital amplifier, independent speaker box, and stainless speaker net. Incorporates a brightness sensor, which automatically controls the panel brightness according to room brightness. Backing light longevity is about 60,000 hours. Economically-designed so that the backing light can be replaced when brightness begins to diminish. We use lead-free solder to all boards, the cabinet uses halogen-free material to reduce dioxin release on incineration, and we use PVC-free wires of the inside. In addition, we have integrated the grade of fire retardant and applied plastic that includes reclaimed material more than 20% of total volume to a stand.



Products/Model :

AQUOS LCD TV LC-45GE2

Eco-products No.087

Home electric appliances/ Lightings

Television receivers

Digital Hi-Vision LCD TV, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B2. Longevity
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Power consumption (W): Reduced by approx. 18% (TH-32LX500, compared with our conventional model TH-32LX300). Achieved stand-by power consumption of approx. 0.08W. Long backlight lifetime of approx. 60,000 hours. Lead-free solder is employed in mounting main printed circuit board.



Products/Model :
Digital Hi-Vision LCD TV, TH-32/26LX500

Eco-products No.088

Home electric appliances/ Lightings

Television receivers

Digital Hi-Vision LCD TV, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B2. Longevity
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Power consumption (W): Reduced by approx. 16.5% (TH-32LX500, compared with our conventional model TH-32LX300). Achieved stand-by power consumption of approx. 0.08W. Long backlight lifetime of approx. 60,000 hours. Lead-free solder is employed in mounting main printed circuit board.



Products/Model :
Digital Hi-Vision LCD TV, TH-32/26/23/19LX50

Eco-products No.089

Home electric appliances/ Lightings

Television receivers

Liquid-crystal colour TV intended for the environmental harmony

TOSHIBA CORPORATION Digital Media Network Company

1-1, Shibaura 1-choume, Minato-ku, Tokyo, 105-8001 Japan

Tel; 81-3-3457-2553 Fax; 81-3-5444-9439

E-mail; hiromi.hamaoka@toshiba.co.jp

URL; <http://www.toshiba.co.jp>

Category:

- A3. Hazardous Substances
- B3. Resource Saving
- B5. Energy Saving

(Hazard Substance) Used were the Pb-free solder, the steel sheet not containing chromium and the Cr-free screw. (Energy) In order to respond the need of the consumers who are sensitive to the energy saving, two saving modes are ready; the mode I and the mode II save respectively 15% and 35% of power energy. The power consumption in stand-by mode is 0.5W, and the power will be off when there is no-signal or no-operation. (Resources) The frame structure was improved from three-layer to mono-layer with keeping its original strength. On the basis of value-analysis, 40% decrease of the weight and 61% decrease of the number of screws were attained. (Function) High performance and resource conservation is realized by the help of a PC at home and that of net-work function.



Products/Model :
beautiful face 32LZ150

Eco-products No.090

Home electric appliances/ Lightings

Television receivers

32V Ground and BS, 110 CS digital high-definition LCD television

SHARP CORPORATION

22-22, Nagaike-cho, Abeno-ku, Osaka, 545-8522 JAPAN

Tel; 81-6-6625-0438 Fax; 81-6-6628-1653

E-mail; morishita.masaaki@sharp.co.jp

URL; <http://www.sharp.co.jp>

Category:

- B1. Recyclability
- B2. Longevity
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving

32V type extended high definition TV equipped with high-definition liquid crystal panel of 3.15 million dots. High-quality sound generated from 1-bit digital amplifier, independent speaker box, and stainless speaker net. Incorporates a brightness sensor, which automatically controls the panel brightness according to room brightness. Backing light longevity is about 60,000 hours. Economically-designed so that the backing light can be replaced when brightness begins to diminish. We use lead-free solder to all boards, the cabinet uses halogen-free material to reduce dioxin release on incineration, and we use PVC-free wires of the inside. In addition, we have integrated the grade of fire retardant and applied plastic that includes reclaimed material more than 20% of total volume to a stand.



Products/Model :
AQUOS LCD TV LC-32GD7

Eco-products No.091

Home electric appliances/ Lightings

Stereo sets

Energy/Resource Saving DVD 5.1ch Home Theater System

PIONEER CORPORATION

4-1 Meguro 1-chome, Meguro-ku, Tokyo, 153-8654 Japan

Tel; 81-3-3494-1111 Fax;

E-mail;

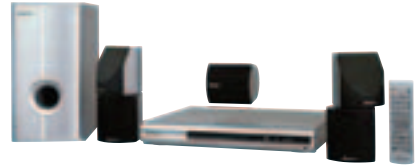
URL; <http://www.pioneer.co.jp>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B3. Resource Saving
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

This is a compact, lightweight and high powered home theater system, and once connected to your TV set, allows you to enjoy DVD surround sound just like you were in a movie theater. With the sound fully digitalized from DVD to amplifier output, this system is equipped with a DVD 5.1-channel amplifier, which eliminates a heat-sink (radiator) from the power section despite the 360W output. The DVD/CD receiver section has a 6cm high low-profile design. It also adopts lead-free solder.

- Consumption power: 45W (about a 74% reduction)
- DVD/CD Receiver Weight: 3.1kg (about a 58% reduction)
(Compared to the conventional equivalent model HTZ-300DV)



Products/Model :

DVD 5.1ch Home Theater System HTZ-232DV

Eco-products No.092

Home electric appliances/ Lightings

Stereo sets

DVD/MD Mini System with Top-Class Standby Power Consumption

PIONEER CORPORATION

4-1 Meguro 1-chome, Meguro-ku, Tokyo, 153-8654 Japan

Tel; 81-3-3494-1111 Fax;

E-mail;

URL; <http://www.pioneer.co.jp>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- A5. Resource Consumption
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Compliant with various types of DVDs, CDs and MDs, this compact and lightweight Mini Component System with a body 17cm wide and 5.7kg in weight is equipped with the "F. AUDIO IN" terminal which is convenient for reproduction of a digital audio player and a "USB" terminal that allows the replay of tunes stored in your personal computer. It is also able to receive the FM/AM broadcast. It has realized the industry's top-class 0.065W standby consumption power through its energy saving design. Furthermore, it also adopts lead-free solder.



Products/Model :

DVD/MD Mini Component System X-HA7DV

Eco-products No.093

Home electric appliances/ Lightings

Stereo sets

Walkman using vegetable-based plastic

Sony Corporation

6-7-35 Kitashinagawa Shinagawa-ku, Tokyo, 141-0001 Japan

Tel; 81-3-5448-2111 Fax; 81-3-5448-2244

E-mail;

URL; <http://www.sony.net>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B1. Recyclability
- B3. Resource Saving
- C6. End-of-Life

Sony is actively developing and using vegetable-based plastics. In fiscal year 2002, Sony began using vegetable-based plastics for the casings of Walkman portable audio products, front panels of DVD players and components for AIBO robots, becoming one of the first companies in the industry to use these plastics in commercial products. This walkman uses vegetable-based plastic for around 90% of the product body. This reduces the amount of oil-derived resources used by 55%. Additionally, of course, the plants absorbed CO₂ while they were grown, thus reducing CO₂ emissions by 20%.



Products/Model :

Walkman (WM-FX202)

Eco-products No.094

Home electric appliances/ Lightings

Stereo sets

DVD/SD Stereo System, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.

1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan

Tel; 81-6-6905-8356 Fax; 81-6-6905-4755

E-mail;

URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Achieved stand-by power consumption of 0.1W due to low power circuit technology. Circuit has been integrated to promote energy saving, and compactness and light weight of circuit boards and fundamental parts have been improved. Additionally, we are environmentally conscious by taking measures such as employing lead-free solder in mounting main printed circuit board.



Products/Model :

DVD/SD Stereo System, SC-PM910DVD

Eco-products No.095

Home electric appliances/ Lightings

Digital audio disc players

Personal MD System, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Achieved stand-by power consumption of 0.1W due to low power circuit technology. Circuit has been integrated to promote energy saving, and compactness and light weight of circuit boards and fundamental parts have been improved. Additionally, we are environmentally conscious by taking measures such as employing lead-free solder in mounting main printed circuit board.



Products/Model :
Personal MD System RX-MDX85

Eco-products No.096

Home electric appliances/ Lightings

Digital audio disc players

MD Stereo System, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Achieved stand-by power consumption of 0.1W due to low power circuit technology. Circuit has been integrated to promote energy saving, and compactness and light weight of circuit boards and fundamental parts have been improved. Additionally, we are environmentally conscious by taking measures such as employing lead-free solder in mounting main printed circuit board.



Products/Model :
MD Stereo System, SC-PM710SD

Eco-products No.097

Home electric appliances/ Lightings

Digital audio disc players

Portable CD Player, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Stand-by power consumption of AC adapter is 0.1W due to low power circuit technology. Circuit has been integrated to promote energy saving, and compactness and light weight of circuit boards and fundamental parts have been improved. Additionally, we are environmentally conscious by taking measures such as employing lead-free solder in mounting main printed circuit board.



Products/Model :
Portable CD Player, SL-CT520/352

Eco-products No.098

Home electric appliances/ Lightings

Digital audio disc players

Portable CD Player, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Achieved about 10% increase in WMA disc reproduction time (compared with our conventional model SL-CT810/710). Stand-by power consumption of AC adapter is 0.1W due to low power circuit technology. Circuit has been integrated to promote energy saving, and compactness and light weight of circuit boards and fundamental parts have been improved. Additionally, we are environmentally conscious by taking measures such as employing lead-free solder in mounting main printed circuit board.



Products/Model :
Portable CD Player, SL-CT820/720

Eco-products No.099

Home electric appliances/ Lightings

Digital audio disc players

Portable MD Player, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Stand-by power consumption of AC adapter is 0.1W due to low power circuit technology. Circuit has been integrated to promote energy saving, and compactness and light weight of circuit boards and fundamental parts have been improved. Additionally, we are environmentally conscious by taking measures such as employing lead-free solder in mounting main printed circuit board.



Products/Model :

Portable MD Player, SJ-MJ59/99/100

Eco-products No.100

Home electric appliances/ Lightings

Digital audio disc players

Portable MD Recorder, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Stand-by power consumption of AC adapter is 0.1W due to low power circuit technology. Circuit has been integrated to promote energy saving, and compactness and light weight of circuit boards and fundamental parts have been improved. Additionally, we are environmentally conscious by taking measures such as employing lead-free solder in mounting main printed circuit board.



Products/Model :

Portable MD Recorder, SJ-MR50/240/270

Eco-products No.101

Home electric appliances/ Lightings

Digital audio players

SD Audio Player, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Stand-by power consumption of AC adapter is 0.1W due to low power circuit technology. Circuit has been integrated to promote energy saving, and compactness and light weight of circuit boards and fundamental parts have been improved. Additionally, we are environmentally conscious by taking measures such as employing lead-free solder in mounting main printed circuit board.



Products/Model :
SD Audio Player, SV-SD90/100V

Eco-products No.102

Home electric appliances/ Lightings

Electric audio equipment

MD Stereo System, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Achieved stand-by power consumption of 0.1W due to low power circuit technology. Circuit has been integrated to promote energy saving, and compactness and light weight of circuit boards and fundamental parts have been improved. Additionally, we are environmentally conscious by taking measures such as employing lead-free solder in mounting main printed circuit board.



Products/Model :
MD Stereo System, SC-PM510MD

Eco-products No.103

Home electric appliances/ Lightings

Finished speaker systems

Puremalt Speaker System Using Recycled Whiskey Barrel Materials

PIONEER CORPORATION

4-1 Meguro 1-chome, Meguro-ku, Tokyo, 153-8654 Japan

Tel; 81-3-3494-1111 Fax;

E-mail;

URL; <http://www.pioneer.co.jp>

Category:

- A3. Hazardous Substances
- A4. Waste
- A5. Resource Consumption
- B7. Usage of Recycled Materials
- C3. Design and Material selection

Barrel materials that have aged whiskey for over 50 years. It is the Puremalt Speaker that has rejuvenated such barrel materials, fulfilling its mission, as speaker cabinets. It not only reutilizes resources but also creates a "warm and soft sound" which cannot be reproduced with new materials that have just been logged. Efforts are being made at reductions in environmental substance through the adoption of lead-free solder as well as a reduction in the number of parts in view of degradability. Portions of the proceeds from our sales are being donated to the "Green Fund" (National Land Afforestation Promotion Organization) to support future afforestation.



Products/Model :

Puremalt Speaker System S-A4SPT-PM

Eco-products No.104

Home electric appliances/ Lightings

TV tuners, including video tuners

Digital Hi-Vision Tuner, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.

1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan

Tel; 81-6-6905-8356 Fax; 81-6-6905-4755

E-mail;

URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Power consumption is reduced by 33% (power consumption: 10W, compared with our conventional model TU-MHD500). Achieved stand-by power consumption of about 0.1W. Circuit has been integrated to promote energy saving, and compactness of circuit boards and fundamental parts has been improved. Lead-free solder is employed in mounting main printed circuit board.



Products/Model :

Digital Hi-Vision Tuner, TU-MHD600

Eco-products No.105

Home electric appliances/ Lightings

Video disc records

DVD player using Vegetable-based plastics

Sony Corporation

6-7-35 Kitashinagawa Shinagawa-ku, Tokyo, 141-0001 Japan

Tel; 81-3-5448-2111 Fax; 81-3-5448-2244

E-mail;

URL; <http://www.sony.net>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B1. Recyclability
- B3. Resource Saving
- C6. End-of-Life

Sony is actively developing and using vegetable-based plastics. In fiscal 2002, Sony began using vegetable-based plastics for the casings of Walkman portable audio products, front panels of DVD players and components for AIBO robots, becoming one of the first companies in the industry to use these plastics in commercial products. In 2004, Sony became the first company in the world to develop a new vegetable-based plastic with flame-retardant properties and to release a DVD player made with this plastic. This achievement reflected the development of a new technology that enhances the flame-resistance of vegetable-based plastic, opening the door to the material's application in a broad range of consumer electronics.



Products/Model :

DVP-NS955V DVD player

Eco-products No.106

Home electric appliances/ Lightings

Video disc records

DVD RECORDER

Hitachi, Ltd. Ubiquitous Platform Group

2-2-1 Ohte-machi, Chiyoda-ku, Tokyo, 100-0004 Japan

Tel; 0120-122-790 Fax; 0120-312-134

E-mail;

URL;

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B4. Higher Quality
- B5. Energy Saving

Possible to record ground digital, too, Hi-Vision can be recorded. HDD/DVD recorder birth. 27% reduction of amount of used electricity.¹⁾ Chrome free steel plate and a non halogen system plastic are adopted as cases. Non halogen board and lead free solder are adopted as a circuit board.

1) It is based on comparison with the conventional model dealing with un Hi-Vision.



Eco-products No.0107

Carriers / Automobiles

Plastic products for automobiles

Plastic Back Door Module for Automotive

Hitachi Chemical, Ltd.

1150, Goshomiya, Chikusei-shi, Ibaraki, 308-0866 Japan

Tel; 81-296-28-2222 Fax; 81-297-28-2685

E-mail;

URL; <http://www.hitachi-chem.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving

This door module produced first time in Japan contributes to realize lighter weight and excellent styling. 17% lighter than conventional steel door. (Improve fuel consumption) Styling flexibility compare to steel door. Reduction in assemble works for interior and exterior parts.



Products/Model :

Plastic Back Door Module for Automotive

Eco-products No.0108

Carriers / Automobiles

Rolled non-ferrous metal and alloy materials

Titanium muffler

Nippon Steel Corporation

2-6-3 Otemachi, chiyodaku, Tokyo, 100-0004 Japan

Tel; 81-3-3275-5144 Fax; 81-3-3275-5979

E-mail; kankyo@hq.nsc.co.jp

URL; <http://www0.nec.co.jp/kankyow/index.html>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B6. Environmental Purification
- C6. End-of-Life

Nippon Steel's titanium materials have high corrosion resistance and are used in a lot of applications: industrial use in the field of electricity and chemicals, marine structures, civil applications including sports goods and office appliances, and the field of construction materials such as roofing and exterior walls which include those used in historical buildings, temples, and shrines (see the cover). The titanium materials contribute to the extended service life of the finished products. For the purpose of reducing the weight of automobiles and motorcycles, mufflers made of Nippon Steel's titanium were employed in commercialized products first time in the industry in FY 2002. Titanium is not only light in weight but also suitable for the thermal resistance required for the application temperature range of mufflers (approx. 600). Nippon Steel is going to further expand the application range of titanium by improving the spring characteristics and engine-sound muffling performance in addition to the lightness.



Eco-products No.0109

Carriers / Automobiles

Parts, attachments and accessories of chemical machinery and its equipment

Wireless hydrogen gas detection system

Hitachi, Ltd. Advanced Research Laboratory

1-280 Higashi-Koigakubo, Kokubunji-shi, Tokyo, 185-0014 Japan

Tel; 81-42-323-1111 Fax; 81-42-327-7884

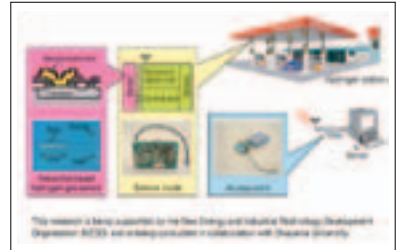
E-mail; yokosawa@rd.hitachi.co.jp

URL;

Category:

- A1. Global Warming
- A2. Air Pollution
- B4. Higher Quality
- C5. Product Use, Maintenance and Repair

Security Surveillance for a Hydrogen Energy Society. Miniaturized transistor-based hydrogen sensor mass produced by using a semiconductor process. Wireless communicating sensors that can be placed wherever convenient. Multi-point detection system that monitors gas leaks in all corners of hydrogen stations.



Products/Model :

Security Surveillance for a Hydrogen Energy

Eco-products No.0110

Carriers / Automobiles

Household electric appliances

Car Navigation Systems

Alpine Electronics, Inc.

1-1-8 Nishi-Gotanda, Shinagawa-ku, Tokyo, 141-8501 Japan

Tel; 81-3-3494-1101 Fax; 81-3-3494-1109

E-mail;

URL; <http://www.alpine.com>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B4. Higher Quality
- B5. Energy Saving
- C6. End-of-Life

In automobile travel, searching for correct routes in unfamiliar areas or letting an engine idle in a traffic jam can result in wasting extra fuel and emitting CO₂. Alpine is working to develop high-performance car navigation systems to make driving more comfortable and ecological by guiding drivers smoothly to their destinations. This model can display a more efficient route to your destination far quicker than conventional models. This superb performance enables you to run your car more efficiently, enhanced by an original "Traffic jam information data base" and "Self learning function" as well as VICS (Vehicle Information Communication System) and a huge "Road map data base". And lead-free soldering is adopted to this model to eliminate lead in solder that could adversely affect the environment and health when the product is manufactured and disposed at the end of life.



Products/Model :

INA-HD55

Eco-products No.111

Carriers / Automobiles

Automobile

Idling Stop System for improved fuel consumption

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1572 Fax; 81-565-23-1589

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

The Toyota Vitz is a CVT* vehicle, featuring the Toyota Intelligent Idling Stop System which applies hybrid technology. We achieved the lowest domestic fuel consumption value of 22.5km/L, for a light car, excluding hybrids and improved fuel consumption by 8.5% compared with our current vehicle by using a lithium ion battery that allows automatic idling stop when the vehicle stops.

*CVT: Continuously Variable Transmission



Products/Model :

Vitz

Eco-products No.112

Carriers / Automobiles

Automobile

New eco-friendly Prius with hybrid power

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving

The new Prius model is equipped with THS, a new-generation Toyota Hybrid System known as Hybrid Synergy Drive, which means simultaneous evolution of ecology and power. It achieves world-beating fuel consumption of 35.5km/L and low emissions. The drive has been dramatically improved by the development of hybrid power. 10-15 mode drive. (Ministry of land, Infrastructure and Transport figure)



Products/Model :

Prius

Eco-products No.113

Carriers / Automobiles

Automobile

Eco-friendly Hybrid vehicle "TOYOTA ALPHARD HYBRID"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA ALPHARD HYBRID" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 50% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 17.2km/liter
- 2) Technology to reduce fuel consumption
 - Hybrid system
 - Idling stop system
 - Continuously variable transmission
 - Variable valve timing



Products/Model :

2.4-liter gasoline engine, All-wheel drive

Eco-products No.114

Carriers / Automobiles

Automobile

Eco-friendly Hybrid vehicle "TOYOTA ESTIMA HYBRID"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA ESTIMA HYBRID" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 50% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 18.6km/liter
- 2) Technology to reduce fuel consumption
 - Hybrid system
 - Idling stop system
 - Continuously variable transmission
 - Variable valve timing
 - Electric power steering system



Products/Model :

2.4-liter gasoline engine, All-wheel drive

Eco-products No.115

Carriers / Automobiles

Automobile

Eco-friendly Hybrid vehicle "TOYOTA HARRIER HYBRID"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA HARRIER HYBRID" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 75% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 17.8km/liter
- 2) Technology to reduce fuel consumption
 - Hybrid system
 - Idling stop system
 - Continuously variable transmission
 - Variable valve timing
 - Electric power steering system



Products/Model :

3.3-liter gasoline engine, All-wheel drive

Eco-products No.116

Carriers / Automobiles

Automobile

Eco-friendly Hybrid vehicle "TOYOTA KLUGER HYBRID"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA KLUGER HYBRID" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 75% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 17.8km/liter
- 2) Technology to reduce fuel consumption
 - Hybrid system
 - Idling stop system
 - Continuously variable transmission
 - Variable valve timing
 - Electric power steering system



Products/Model :

3.3-liter gasoline engine, All-wheel drive

Eco-products No.117

Carriers / Automobiles

Automobile

Eco-friendly Mild-Hybrid vehicle "TOYOTA CROWN SEDAN"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA CROWN SEDAN" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 50% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 13.0km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing
 - Mild-Hybrid system
 - Idling stop system



Products/Model :

CROWN SEDAN

Eco-products No.118

Carriers / Automobiles

Automobile

TOYOTA FCHV

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-1754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B3. Resource Saving
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

From the start of the fuel cell vehicle effort in 1992, Toyota has pursued development of its own fuel cell stack, the core component of any fuel cell vehicle. This high-performance fuel cell-the Toyota FC Stack-is a performance leader among vehicular fuel cells worldwide. In addition to the fuel cell, the FCHV has a secondary battery which stores energy regenerated during braking. When combined with the hybrid system which was first put to large-scale application in the Prius, the FCHV achieves highly efficient operation through sophisticated energy management. (Fuel type)Hydrogen, (Max cruising range)300km, (Max speed)155km/h, (Weight)1860kg, (Seating capacity)5persons



Products/Model :

TOYOTA FCHV

Eco-products No.119

Carriers / Automobiles

Automobile

CNG (Compressed natural gas) vehicle "TOYOTA PROBOX"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

CNG vehicle emits little CO₂ and NO_x, particulate emissions are zero.

(Max cruising range) 350km, (Max payload) 400kg



Products/Model :
PROBOX

Eco-products No.120

Carriers / Automobiles

Automobile

CNG (Compressed natural gas) vehicle "TOYOTA DYNA & TOYOACE"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- A5. Resource Consumption
- C5. Product Use, Maintenance and Repair

CNG vehicle emits little CO₂ and NO_x, particulate emissions are zero.

(Max cruising range) 300km, (Max payload) 2ton



Eco-products No.121

Carriers / Automobiles

Automobile

LPG (Liquefied petroleum gas) vehicle "TOYOTA DYNA"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- A5. Resource Consumption
- C5. Product Use, Maintenance and Repair

LPG vehicle emits little CO₂ and NO_x, particulate emissions are zero.

(Max payload) 1.5 - 3.0 ton



Products/Model :

DYNA

Eco-products No.122

Carriers / Automobiles

Automobile

LPG (Liquefied petroleum gas) vehicle "TOYOTA TOYOACE"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- A5. Resource Consumption
- C5. Product Use, Maintenance and Repair

LPG vehicle emits little CO₂ and NO_x, particulate emissions are zero.

(Max payload) 1.5 - 3.0 ton



Products/Model :

TOYOACE

Eco-products No.123

Carriers / Automobiles

Automobile

LPG (Liquefied petroleum gas) vehicle "TOYOTA COASTER"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- A5. Resource Consumption
- C5. Product Use, Maintenance and Repair

"TOYOTA COASTER" emits little CO₂ and NO_x, particulate emissions are zero.



Products/Model :

COASTER (minibus)

Eco-products No.124

Carriers / Automobiles

Automobile

Clean diesel truck "DPNR-equipped TOYOTA DYNA & TOYOACE"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A2. Air Pollution
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

The DPNR (Diesel Particulate NO_x Reduction) is a catalytic converter system that continuously and simultaneously removes PM (Particulate Matter) - granular material consisting mainly of fly ash - and NO_x (nitrogen oxides) from diesel exhaust emissions by utilizing the NO_x storage reduction three-way catalytic converter technology.

(Max payload) 2-3 ton, (Fuel type) low-sulfur gas oil at 10 ppm max



Products/Model :

TOYOACE

Eco-products No.125

Carriers / Automobiles

Automobile

Clean diesel truck "DPR-equipped TOYOTA DYNA & TOYOACE"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A2. Air Pollution
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

This truck equipped DPR (Diesel Particulate Reduction) system achieves ultra-low PM (particulate matter) emission level that is 85% lower than the standard levels for 2000.

(Max payload) 2- 3 ton, (Fuel type) low-sulfar gas oil at 50 ppm max



Products/Model :

DYNA

Eco-products No.126

Carriers / Automobiles

Automobile

Clean diesel truck "TOYOTA DYNA & TOYOACE Hybrid"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

This truck equipped with a hybrid system is the first of its kind in the world and was jointly developed with Hino Motors, LTD. This truck achieves a PM emission level that is 85% lower than standard levels for 2000, qualifying it as an ultra-low PM emission diesel vehicle, as well as a NOx emission level that is 50% lower than the 2000 Exhaust Emission Standards, qualifying it as a LOW- Emission Vehicle. The truck's fuel efficiency has also been improved by 30%.

(Max payload) 2-3ton, (Fuel type) low-sulfar gas oil at 50 ppm max



Products/Model :

DYNA

Eco-products No.127

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA CENTURY"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA CENTURY" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 75% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 7.8km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing
 - Battery charge control system



Products/Model :
CENTURY

Eco-products No.128

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA CELSIOR"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA CELSIOR" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 75% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 8.9km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing
 - Battery charge control system



Products/Model :
CELSIOR

Eco-products No.129

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA CROWN ROYAL "

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA CROWN ROYAL" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 75% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption(10-15Japanese test cycle) : 12.0km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing
 - Electric power steering system
 - Direct injection 4 stroke gasoline engine
 - Battery charge control system



Products/Model :

2.5-liter gasoline engine, Rear-wheel drive

Eco-products No.130

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA CROWN ATHLETE"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA CROWN ATHLETE" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 75% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 12.0km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing
 - Electric power steering system
 - Direct injection 4 stroke gasoline engine
 - Battery charge control system



Products/Model :

2.5-liter gasoline engine, Rear-wheel drive

Eco-products No.131

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA MARK X"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA MARK X" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 75% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 12.0km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing
 - Electric power steering system
 - Direct injection 4 stroke gasoline engine



Products/Model :

2.5-liter gasoline engine, Rear-wheel drive

Eco-products No.132

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA PREMIO"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA PREMIO" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 75% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption(10-15Japanese test cycle):16.0km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing



Products/Model :

1.8-liter gasoline engine, Front-wheel drive

Eco-products No.133

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA ALLION"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA ALLION" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 75% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 16.0km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing



Products/Model :

1.8-liter gasoline engine, Front-wheel drive

Eco-products No.134

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA CAROLLA"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA CAROLLA" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 75% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 17.2km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing
 - Electric power steering system



Products/Model :

1.5-liter gasoline engine, Front-wheel drive

Eco-products No.135

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA CAROLLA FIELDER"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA CAROLLA FIELDER" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 75% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15 Japanese test cycle) : 17.2km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing
 - Electric power steering system



Products/Model :

1.5-liter gasoline engine, Front-wheel drive

Eco-products No.136

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA CAROLLA RUNX"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA CAROLLA RUNX" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 75% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15 Japanese test cycle) : 17.2km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing
 - Electric power steering system



Products/Model :

1.5-liter gasoline engine, Front-wheel drive

Eco-products No.137

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA ALLEX"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA ALLEX" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 75% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 17.2km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing
 - Electric power steering system



Products/Model :

1.5-liter gasoline engine, Front-wheel drive

Eco-products No.138

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA CALDINA "

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA CALDINA" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 75% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 14.4km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing



Products/Model :

1.8-liter gasoline engine, Front-wheel drive

Eco-products No.139

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA ISIS"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA ISIS" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 50% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15 Japanese test cycle) : 14.4km/liter
- 2) Technology to reduce fuel consumption
 - Continuously variable transmission
 - Variable valve timing
 - Battery charge control system
 - Electric power steering system
 - Direct injection 4 stroke gasoline engine



Products/Model :

2-liter gasoline engine, Front-wheel drive

Eco-products No.140

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA IPSUM"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA IPSUM" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 50% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15 Japanese test cycle) : 11.4km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing
 - Battery charge control system



Products/Model :

2.4-liter gasoline engine, Front-wheel drive

Eco-products No.141

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA WISH"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA WISH" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 50% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle):14.4km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing
 - Electric power steering system



Products/Model :

1.8-liter gasoline engine, Front-wheel drive

Eco-products No.142

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA SIENTA "

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA SIENTA" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 50% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 19.0km/liter
- 2) Technology to reduce fuel consumption
 - Continuously variable transmission
 - Variable valve timing
 - Battery charge control system
 - Electric power steering system



Products/Model :

1.5-liter gasoline engine, Front-wheel drive

Eco-products No.143

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA HIACE WAGON"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA HIACE WAGON" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 50% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 8.6km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing
 - Battery charge control system



Products/Model :

2.7-liter gasoline engine, Rear-wheel drive

Eco-products No.144

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA ALPHARD"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA ALPHARD" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 75% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 9.7km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing



Products/Model :

2.4-liter gasoline engine, Front-wheel drive

Eco-products No.145

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA ESTIMA"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi,471-8571
Tel; 81-565-23-1343 Fax; 81-565-23-5754
E-mail; horomasa_hino@mail.toyota.co.jp
URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA ESTIMA" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 75% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 11.0km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing
 - Battery charge control system



Products/Model :

2.4-liter gasoline engine, Front-wheel drive

Eco-products No.146

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA NOAH"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan
Tel; 81-565-23-1343 Fax; 81-565-23-5754
E-mail; horomasa_hino@mail.toyota.co.jp
URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA NOAH" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 50% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 14.2km/liter
- 2) Technology to reduce fuel consumption
 - Continuously variable transmission
 - Variable valve timing
 - Battery charge control system
 - Direct injection 4 stroke gasoline engine



Products/Model :

2-liter gasoline engine, Front-wheel drive

Eco-products No.147

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA VOXY"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA VOXY" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 50% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 14.2km/liter
- 2) Technology to reduce fuel consumption
 - Continuously variable transmission
 - Variable valve timing
 - Battery charge control system
 - Direct injection 4 stroke gasoline engine



Products/Model :

2-liter gasoline engine, Front-wheel drive

Eco-products No.148

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA HARRIER"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA HARRIER" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 50% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 11.0km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing
 - Battery charge control system



Products/Model :

2.4-liter gasoline engine, Front-wheel drive

Eco-products No.149

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA KLUGER"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA KLUGER" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 50% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 11.0km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing
 - Battery charge control system



Products/Model :

2.4-liter gasoline engine, Front-wheel drive

Eco-products No.150

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA ist"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA ist" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 75% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 16.8km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing



Products/Model :

1.3-liter gasoline engine, Front-wheel drive

Eco-products No.151

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA PLATZ"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA PLATZ" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 50% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 19.6km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing



Products/Model :

1-liter gasoline engine, Front-wheel drive

Eco-products No.152

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA FUN CARGO"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA FUN CARGO" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 50% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 16.8km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing



Products/Model :

1.3-liter gasoline engine, Front-wheel drive

Eco-products No.153

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA PASSO"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA PASSO" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 75% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 21.0km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing
 - Electric power steering system



Products/Model :

1.0-liter gasoline engine, Front-wheel drive

Eco-products No.154

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA PROBOX WAGON"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA PROBOX WAGON" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 50% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 17.2km/liter
- 2) Technology to reduce fuel consumption
 - Variable valve timing



Products/Model :

1.5-liter gasoline engine, Front-wheel drive

Eco-products No.155

Carriers / Automobiles

Automobile

Eco-friendly vehicle "TOYOTA SUCCEED VAN"

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan

Tel; 81-565-23-1343 Fax; 81-565-23-5754

E-mail; horomasa_hino@mail.toyota.co.jp

URL; <http://www.toyota.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"TOYOTA SUCCEED VAN" clears the 2010 Fuel Efficiency Standards, and also achieves an exhaust emission level that is 50% lower than the 2010 Exhaust Emission Standards in the Ministry of Land.

- 1) Specific fuel consumption (10-15Japanese test cycle) : 15.8km/liter
- 2) Technology to reduce fuel consumption
 - High-efficiency transmission
 - Variable valve timing



Products/Model :

1.5-liter gasoline engine, Front-wheel drive

Eco-products No.156

Carriers / Automobiles

Natural Gas Truck

Natural Gas Truck: Low-pollution vehicle

Sagawa Express Co., Ltd.

68, Tsunoda-cho, Kamitoba, Minami-ku, Kyoto, 601-8104 Japan

Tel; 81-75-691-6500 Fax; 81-75-681-2349

E-mail;

URL; <http://www.sagawa-exp.co.jp/>

Category:

- A1. Global Warming
- A2. Air Pollution
- A5. Resource Consumption
- B6. Environmental Purification

Environmental countermeasure against truck as a transportation medium of comprehensive distribution industry is central to reduction of environment burden. This natural gas truck is a low-pollution vehicle that runs on compressed natural gas. Compared with conventional diesel vehicles, it drastically reduces environmental impact, with reductions of 20% in CO₂, 90% in NO_x and 100% in PM. It is currently the most environment-friendly truck.



Eco-products No.157

Carriers / Automobiles

Motor vehicles

Cygnus X: New design 4-value plated cylinder

YAMAHA MOTOR CO., LTD.

Shingai, Iwata Shizuoka, 438-8501 Japan

Tel; 81-538-32-1100 Fax; 81-538-32-1100

E-mail;

URL; <http://www.yamaha-motor.co.jp/>

Category:

- A1. Global Warming
- A2. Air Pollution
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

The Cygnus X scooter features a new engine with a 4-value combustion chamber that achieves outstanding intake/exhaust efficiency and a plated cylinder for excellent heat dissipation and reduced oil consumption. What's more, it uses the Yamaha air induction system that cleans emissions by burning unburned fuel in the exhaust and a "hot tube". As a result this model achieves 12% better fuel economy in a standardized mileage test than the existing version of the same model.



Products/Model :
"CYGNUS X"

Eco-products No.158

Carriers / Automobiles

Truck bodies

New Model

Sagawa Express Co., Ltd.

68, Tsunoda-cho, Kamitoba, Minami-ku, Kyoto, 601-8104 Japan

Tel; 81-75-691-6500 Fax; 81-75-681-2349

E-mail;

URL; <http://www.sagawa-exp.co.jp/>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- A4. Waste
- B1. Recyclability
- B7. Usage of Recycled Materials

The new model "Eco Body" offers high performance while taking environmental considerations into account. To achieve enhanced durability and energy savings, we made the following changes:

- (1) replaced the steel plate with a composite (Zn-Al-Mg) plated steel sheet (cross member/openings), which much improves the anti-rust performance
- (2) covered electrical wiring for protection against de-icer in winter
- (3) enhanced the intensity to 1.2 times the value of a conventional vehicle through a monocoque structure with sandwich panel. Non-Freon Phenolic Foam is used as an adiabatator. Interior material uses 100% recycled PS board and all of these materials are recyclable.



Products/Model :
New model "Eco Body"

Eco-products No.159

Carriers / Automobiles

Parts of motor vehicles

HDD Car Navigation System in consideration of fuel consumption

PIONEER CORPORATION

4-1 Meguro 1-chome, Meguro-ku, Tokyo, 152-0000 Japan
Tel; 81-3-3494-1111 Fax;
E-mail;
URL; <http://www.pioneer.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B5. Energy Saving
- C3. Design and Material selection
- C6. End-of-Life

It is a new HDD Car Navigation System, which consists of three units, an In-vehicle main unit (TV/FM/AM tuner, DVD/CD player, TV monitor, etc.), a navigation unit and a home kit (TV connecting adaptor, etc.). Especially, the navigation unit can be detachable and carry around. Because it can be carried into your room to set the best route and to confirm, instead of inside your car in idling mode, you can save more fuel. Also, it doesn't employ a lithium battery to hold data in a memory. Moreover it uses lead free solder and easy-recyclable cardboard cushion for packaging.



Products/Model :

HDD Car Navigation System AVIC-ZH990

Eco-products No.160

Carriers / Automobiles

Parts of motor vehicles

Tire Temporary Mobility Restoration Kit

Bridgestone Corporation

10-1, Kyobashi 1-chome Chuo-ku, Tokyo, 104-8340 Japan
Tel; 81-3-3563-6972 Fax; 81-3-3563-1165
E-mail;
URL; <http://www.bridgestone.co.jp/english/index.html>

Category:

- A4. Waste
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Bridgestone corporation has been developing Tire Temporary Mobility Restoration Kit, which can be used in major puncture case instead of spare tire, to allow the driver to continue driving to a place to replace the punctured tire. The kit will be effective in countries with good road condition.

- Resource saving : This kit can deal with major puncture case, therefore, spare tire will no longer be necessary when the kit is equipped. Resource used to produce spare tire, which are disposed mostly unused, can be greatly saved.
- Reusable : The kit consists of a sealant and an air compressor. The kit can be reused by replacing the sealant only, when used.



Products/Model :

Proto type

Eco-products No.161

Carriers / Automobiles

Motor vehicle parts and accessories

Water Cooled Alternator

Hitachi, Ltd. Automotive Systems

4-6 Kanda-Surugadai, Chiyoda-ku, Tokyo, 101-0062 Japan

Tel; Fax;

E-mail; info@jiji.hitachi.co.jp

URL; <http://www.hitachi.co.jp/Div/apd/en/>

Category:

- A1. Global Warming
- B4. Higher Quality
- B5. Energy Saving

It can contribute to Less Emission and Improvement in Fuel Consumption of the Vehicle. A compact size alternator with high output (44% higher than conventional (air cooled) unit at engine idling speed) Higher power generation efficiency (Approximately 7% higher than the conventional unit) Low acoustic noise (20 dB at 10,000 r/min(alternator speed) lower than air cooled unit) Potential for applying various system (Ex. Motorized 4WD system; one of Hitachi's other contribution for ecology)



Products/Model :
LR945-901B

Eco-products No.162

Carriers / Automobiles

Motor vehicle parts and accessories

Variable Displacement Pump

Hitachi, Ltd. Automotive Systems

4-6 Kanda-Surugadai, Chiyoda-ku, Tokyo, 101-0062 Japan

Tel; Fax;

E-mail; info@jiji.hitachi.co.jp

URL; <http://www.Hitachi.co.jp/Div/apd/en/>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B4. Higher Quality

Variable Displacement Pump for Automobile Power Steering can save Fuel by Controlling Displacement. Fuel consumption is reduced by about 1.5% by reducing driving torque of Pump. Pump displacement is controlled suitably according to engine revolution speed. Cooling piping is simplified and reliability is improved by decreasing oil temperature in the system.



Eco-products No.163

OA / IT Equipments

Copying machines

Digital copying machine with environmental impact reduced

Canon Inc.

30-2, Shimomaruko 3-chome, Ohta-ku, Tokyo, 146-8501 Japan

Tel; 81-3-3758-2111 Fax; 81-3-3758-1160

E-mail;

URL; <http://www.canon.com>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B3. Resource Saving
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

- 1) Energy Saving: Power consumption of only 1W during sleep mode, with Canon's On-demand Fixing technology and improved controller
- 2) Elimination of Hazardous Substances: Anticipation of the RoHS Directive, which restricts or prohibits the use of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls(PBB), and polybrominated diphenyl ethers (PBDE)
- 3) Resource Saving: Compact body design of 565mm in width, which reduces the resources used at the manufacturing phase



Products/Model :
iR 4570

Eco-products No.164

OA / IT Equipments

Copying machines

Digital Imaging System Ricoh Aficio 2015/2018/2018D

Ricoh Company, Ltd.

1-15-5, Minami-Aoyama, Minato-ku, Tokyo, 107-8544 Japan

Tel; 81-3-5411-4404 Fax; 81-3-5411-4410

E-mail; envinfo@ricoh.co.jp

URL; <http://ricoh.co.jp/ecology>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving

Compared with previous models, the Ricoh Aficio 2015/2018/2018D have improved recovery time (from energy saver mode back to print ready conditions) to less than 10 seconds, because of the same technologies, named as Quick Start Up (QSU), used in other Ricoh Aficio series. At the same time, power consumption in energy saver mode has been reduced to 1W for basic copier models and to 10W for multifunction models. As the result, more energy saving becomes possible, while waiting less. In the same manner as other Aficio series, Aficio 2018D has enhanced duplex productivity to reduce the time to complete duplex prints, so that the customers can use duplex mode more, to save paper.



Products/Model :
RicoH Aficio 2015

Eco-products No.165

OA / IT Equipments

Copying machines

Digital Imaging System Ricoh Aficio 2022/2027/2032

Ricoh Company, Ltd.

1-15-5, Minami-Aoyama, Minato-ku, Tokyo, 107-8544 Japan

Tel; 81-3-5411-4404 Fax; 81-3-5411-4410

E-mail; envinfo@ricoh.co.jp

URL; <http://ricoh.co.jp/ecology>

Category:

- A1. Global Warming
- B5. Energy Saving
- B3. Resource Saving
- A5. Resource Consumption
- B4. Higher Quality

In the past, the average copier with an Energy Star label needed 30 seconds to be back to print ready conditions from energy saver mode. Due to such long waiting time, many customers were not willing to use the energy saving function. In addition, they little used the duplex mode due to longer operation time than simplex mode and to complicated operation. However, the Ricoh Aficio 1022/1027/1032/2022/2027/2032 can recover in less than 10 seconds and can save about 75% or more energy, compared with previous models, because of innovative Quick Start Up (QSU) technologies. The duplex speed has been improved to the fastest in the class, and its ease of operation has also been improved through a large operation panel and graphic display in Ricoh's own printer driver screen. By the above, duplex print can be done more comfortably, resulting in saving paper.



Products/Model :
RicoH Aficio 2027

Eco-products No.166

OA / IT Equipments

Copying machines

Digital Imaging System Ricoh Aficio 2035e/2045e

Ricoh Company, Ltd.

1-15-5, Minami-Aoyama, Minato-ku, Tokyo, 107-8544 Japan

Tel; 81-3-5411-4404 Fax; 81-3-5411-4410

E-mail; envinfo@ricoh.co.jp

URL; <http://ricoh.co.jp/ecology>

Category:

- A1. Global Warming
- B5. Energy Saving
- B3. Resource Saving
- A5. Resource Consumption
- B4. Higher Quality

In the past, the average copier with an Energy Star label needed 30 seconds to be back to print ready conditions from energy saver mode. Due to such long waiting time, many customers were not willing to use the energy saving function. In addition, they little used the duplex mode due to longer operation time than simplex mode and to complicated operation. However, the Ricoh Aficio 1035/2035e can recover in less than 10 seconds (15 seconds for Aficio 1045/2045e) and can save about 75% or more energy, compared with previous models, because of innovative Quick Start Up (QSU) technologies. The duplex speed has been improved to the fastest in the class, and its ease of operation has also been improved through a large operation panel and graphic display in Ricoh's own printer driver screen. By the above, duplex print can be done more comfortably, resulting in saving paper.



Products/Model :
RicoH Aficio 2035e

Eco-products No.167

OA / IT Equipments

Copying machines

Digital Imaging System Ricoh Aficio 2051/2060/2075

Ricoh Company, Ltd.

1-15-5, Minami-Aoyama, Minato-ku, Tokyo, 107-8544 Japan

Tel; 81-3-5411-4404 Fax; 81-3-5411-4410

E-mail; envinfo@ricoh.co.jp

URL; <http://ricoh.co.jp/ecology>

Category:

- A1. Global Warming
- B5. Energy Saving
- B3. Resource Saving
- A5. Resource Consumption
- B4. Higher Quality

In the previous models, warming-up time after turning on the power switch till becoming print ready conditions was 300 seconds and, recovery time from energy saver mode in the daytime was 30 seconds. Because of such long waiting time, the operators have to be patient to use energy saver modes. For more customers to use energy saver modes, such waiting times of new Ricoh Aficio 2051/2060/2075 have been improved because of innovative Quick Start Up technologies (QSU); warm-up time is enhanced from 300 seconds to 30 seconds. For those who cannot accept even 30 seconds to recover the machine in daytime, it is possible to set an optional mode to recover it in less than 10 seconds. Thus, energy saving becomes more comfortable, resulting in more customers to save energy. To save paper, it is important to print multiple original pages in both sides of paper. The unique dual scanning document feeder can scan both sides of original images at the same time, resulting in the same highest duplex productivity even from duplex originals in the class.



Products/Model :
Ricoh Aficio 2075

Eco-products No.168

OA / IT Equipments

Copying machines

Environmentally conscious color Multifunctional Peripheral

TOSHIBA TEC CORPORATION

Oval Court Ohsaki Mark East 2-17-2 Higashi Gotanda, Shinagawa-ku,

Tokyo, 141-8664 Japan

Tel; 81-3-6422-7160 Fax; 81-3-6422-7121

E-mail; environment@toshibatec.co.jp

URL; http://www.toshibatec.co.jp/index_e.htm

Category:

- A3. Hazardous Substances
- B5. Energy Saving
- B7. Usage of Recycled Materials
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

- By combining network scanning, printing, faxing, and copying capability in a single machine, the e-STUDIO281C/351C/451C allow your office to replace a whole range of appliances.
- The warm-up time of these models has been drastically reduced to 1/6 compared with our conventional product by adopting the Twin IH Fusing System.
- Lead-free solders, hexavalent chromium-free steel plates, halogen-free external covers and halogen-free printed circuit boards are used for these models in order to reduce environmental-related chemical substances.
- For more than half of the plastic components, post-consumer plastic materials are adopted.
- These models comply with the international Eco Labels such as ENERGY STAR Program and Blue Angel Mark.
- Featuring a wide, half-VGA-size touch panel LCD, large graphic icons and a full QWERTY keyboard, these models make operation so much easier to give you access to functions in reduced time. The entire control panel has been designed to tilt up and down, making it easier to view in different lighting conditions and enabling easy access for wheelchair users too.



Products/Model :
e-STUDIO451C (With optional devices)

Eco-products No.169

OA / IT Equipments

Copying machines

Digital Full Color Multifunctional System

SHARP CORPORATION

22-22,Nagaike-cho,Abeno-ku,Osaka,545-8522 JAPAN

Tel; 81-6-6625-0438 Fax; 81-6-6628-1653

E-mail; morishita.masaaki@sharp.co.jp

URL; <http://www.sharp.co.jp>

Category:

- B1. Recyclability
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- B7. Usage of Recycled Materials

This copier has our unique automatic identification function for sorting original copies. It is equipped with a pre-heating function that lowers the fixing temperature during waiting time, leading to reduced running cost. We applied lead-free solder to main boards and chromium-free steel plate to the chassis and other parts. We also used lead-free power cord/wire harness. Packaging materials are made from cardboard (suitable for recycling) rather than foam polystyrene. Recycled plastic is adopted for one component weighing 25g and over.



Products/Model :
Digital Full Color Copia AR-C262S

Eco-products No.170

OA / IT Equipments

Copying machines

Digital Multifunctional Copier, energy-saving

SHARP CORPORATION

22-22,Nagaike-cho,Abeno-ku,Osaka,545-8522 JAPAN

Tel; 81-6-6625-0438 Fax; 81-6-6628-1653

E-mail; morishita.masaaki@sharp.co.jp

URL; <http://www.sharp.co.jp>

Category:

- B1. Recyclability
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- B7. Usage of Recycled Materials

This digital multi-function copier machine features power consumption as low as 1W or less in standby mode. Power consumption as low as 1W or less in standby (at auto power shut-off). It also offers energy savings of almost 27% compared with previous model (AR-265S). The product uses eco-friendly materials such as lead-free solder for circuit boards, chromium-free plates for the chassis, lead-free power cord and wire harness, halogen-free resin for the external cabinet, and cardboard rather than polystyrene foam for packing. Recycled plastic is adopted for one component weighing 25g and over.



Products/Model :
Digital Multifunctional System AR-266S

Eco-products No.171

OA / IT Equipments

Copying machines

Document Optimizer, Multi-functional Color Copier

Canon Inc.

30-2, Shimomaruko 3-chome, Ohta-ku, Tokyo, 146-8501 Japan

Tel; 81-3-3758-2111 Fax; 81-3-3758-1160

E-mail;

URL; <http://www.canon.com>

Category:

- B1. Recyclability
- B7. Usage of Recycled Materials
- C3. Design and Material selection
- C6. End-of-Life

Hexavalent chromium-free components (e.g. steel plates and screws) and lead-free components (e.g. lenses and cables) are used. Recycled plastic is used for some parts of the exterior cover under closed recycling system. The compact design reduces the resources the go into making the product.



Products/Model :
Color multifunctional copier, iR C3200

Eco-products No.172

OA / IT Equipments

Copying machines

Full Color Digital Multifunctional Copier

Panasonic Communications Co., Ltd.

2-3-8 Shimomeguro, Meguro-Ku, Tokyo, 153-8687 JAPAN

Tel; 81-3-5434-7020 Fax; 81-3-5434-7904

E-mail; takenouchi.hiroyuki@jp.panasonic.com

URL; <http://panasonic.co.jp/pcc/index.html>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Thanks to the Panasonic's IH(induction heating) technologies, the DP-C322/C262 can become ready for printing in only approximately 15 seconds from the sleep mode or after power on. This realizes very quick color document output, and helps to conserve environments. In addition, the DP-C322/C262 uses lead free solders, lead and cadmium free materials for harness and power code, hexavalent chromium free screws and steel plates, heavy metal free toner and halogen free plastic components for casing, which contributes to conserve environments. Furthermore, the DP-C322/C262 has "2 in 1" printing function that two same-sized originals are printed out to a single sheet to reduce paper usage and power consumption.



Products/Model :
WORKiO DP-C322/C262

Eco-products No.173

OA / IT Equipments

OMR(Optical Mark Reader)

OMR : Recycled paper and materials, power conservation

SEKONIC CORPORATION

7-24-14, Oizumi-Gakuen-cho, Nerima-ku, Tokyo, 178-8686 Japan

Tel; 81-3-3978-2335 Fax; 81-3-3922-2144

E-mail; omr@sekonic.co.jp

URL; <http://www.sekonic.co.jp>

Category:

- B1. Recyclability
- B2. Longevity
- B5. Energy Saving
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

- Supports recycled OCR paper (Content: 50%)
- Equipped with power-saving mode for energy conservation(50% power savings in comparison with our conventional machine).
- Material names are specified on exterior and resin parts to allow easy recycling of spent materials.
- Recyclable corrugated paper packaging materials.
- Produced by companies holding ISO 14001 certification.
- Product registered on information plaza for green purchasing.



Products/Model :
SR-5500

Eco-products No.174

OA / IT Equipments

High-speed color scanner

Scanner, Energy conservation, Space saving

Panasonic Communications Co., Ltd.

1471, Murata-Machi, Tosu City, Saga, 841-8501 Japan

Tel; 81-942-81-2723 Fax; 81-942-81-2682

E-mail;

URL; <http://panasonic.co.jp/pcc/index.html>

Category:

- A1. Global Warming
- A5. Resource Consumption
- C5. Product Use, Maintenance and Repair

High-speed color scanner: Space-saving compact design by adopting the curve path ADF. (Requires only 0.4m² space for scanning size A3 sheet) Conforms to the international ENERGY STAR program.



Products/Model :
Hi-speed color scanner: KV-S3065CW

Eco-products No.175

OA / IT Equipments

Projector

EMP-740 LCD projector demonstrates high environmental performance

SEIKO EPSON CORPORATION

3-3-5 Owa, Suwa-shi, Nagano-ken, 392-8502 Japan

Tel; Fax;

E-mail; eco@exc.epson.co.jp

URL; <http://www.epson.co.jp/e>

Category:

- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

EMP-740 mobile LCD projector is the world's brightest projector (2,500 ANSI lumens) under 2.0kg. Weighing only 1.8kg, it is portable yet delivers high-resolution images even in a well-lit room. Compared to EMP-7100, released in 1997, the EMP-740 is four times brighter and requires only one-fourth the energy (per lumen), a significant improvement in energy efficiency. To achieve this, Epson worked with a lamp manufacturer to develop the Epson Twin Optimized Reflection Lamp (ETORL), which raises light use efficiency. This is also attributable to the One-Touch Off function, which allows the user to stow the projector without cooling it down. Epson was able to use a low power-consumption lamp that generates less heat, without compromising brightness. This also allowed the projector to work without a costly cooling mechanism, extended the life of the lamp, reduced fan noise, slashed the projector size, and reduced the cost of production. Another achievement was in resource savings. Compared to the ELP-7100, the EMP-740's volume and mass were reduced to one-fourth, and the efficiency in resource savings (dimension and mass per lumen) is fifteen times higher.



Eco-products No.176

OA / IT Equipments

Office machines

Electronic board, Metallic design, Easy to clean

Panasonic Communications Co., Ltd.

1471, Murata-Machi, Tosu City, Saga, 841-8501 Japan

Tel; 81-942-81-2723 Fax; 81-942-81-2682

E-mail;

URL; <http://panasonic.co.jp/pcc/index.html>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B3. Resource Saving
- B7. Usage of Recycled Materials
- C5. Product Use, Maintenance and Repair

A series of electronic board of highly luxurious metallic design adopting the aluminum materials for the outside frames: Plain paper standard model (UB-5325). Plain paper wide model (UB-5825). Plain paper 4-screen model (UB-7325).

- Replaced the plastic outside frames of the electronic board with the lustrous aluminum frames. The luxurious design is fitted for use in board meeting rooms of business corporations, meeting rooms at hotels and event halls.
- The aluminum frames are easy to clean and resistant to discoloration by ultraviolet rays.



Products/Model :

Panaboard: UB-5325/7325/5825

Eco-products No.177

OA / IT Equipments

Magnetic discs (raw)

DVD-R/ DVD+R Disc for 16X Speed recording

Hitachi Maxell, Ltd.

1-1-88 Ushitora, Ibaragi-shi, Osaka, 567-0877 Japan

Tel; 81-72-623-8250 Fax; 81-72-623-9014

E-mail; Kankyo@maxell.co.jp

URL;

Category:

- A5. Resource Consumption
- B3. Resource Saving
- C2. Material and Components Production

Less than 7 minutes for recording time per disc. Realizing the stable recording performance from 1x to 16x speed with employing newly developed LTHS¹⁾ recording layer Using only 42% of raw material for the thinner jewel case compare to existing conventional jewel case.

1) Low Thermal interference and High Sensitivity



Products/Model :

DR47D.1P

Eco-products No.178

OA / IT Equipments

Facsimiles

High performance eco-friendly fax machine

Panasonic Communications Co., Ltd.

2-3-8 Shimomeguro, Meguro-Ku, Tokyo, 153-8687 JAPAN

Tel; 81-3-5434-7020 Fax; 81-3-5434-7904

E-mail; takenouchi.hiroyuki@jp.panasonic.com

URL; <http://panasonic.co.jp/pcc/index.html>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

The UF-A600/A500 features a power-saving mode, which sets the heater in the printer block down to the minimum required power in standby/energy-saving mode. This design reduces power consumption at standby mode by approx 80%(compared to our conventional model, UF-A70) In addition, the UF-A600/A500 uses lead free solders, lead and cadmium free materials for harness and power code, hexavalent chromium free screws and steel plates and halogen free plastic components for casing, which contributes to conserve environments. Furthermore, UF-A600/A500 has "2 in 1" printing function that two same-sized originals are printed out to a single sheet to reduce paper usage and power consumption.



Products/Model :

Panafax UF-A600/A500

Eco-products No.179

OA / IT Equipments

Cellular telephone sets and PHS telephone sets

Mobile Phone

Hitachi, Ltd. Ubiquitous Platform Group
2-2-1 Ohte-machi, Chiyoda-ku, Tokyo, 100-0004 Japan
Tel; 0120-3121-11 Fax; 0120-3121-34
E-mail;
URL; <http://av.hitachi.co.jp>

Category:

- A3. Hazardous Substances
- A5. Resource Consumption

A new style of mobile phone that can be smoothly slid open with one hand. 18% decrease in energy consumption while in standby mode compared to previous model (W11H) 20 minute increase in continuous call time compared to previous model (W11H) Uses environmentally friendly materials such as lead-free solder and power cord sheathing.



Products/Model :
W22H

Eco-products No.180

OA / IT Equipments

Radio applied equipment

Personal Digital Assistant (Mobile Terminal for Settlement of Accounts)

Panasonic System Solutions Company, Matsushita Electric Industrial Co., Ltd.
4-3-1 Tsunashima-higashi, Kohoku, Yokohama City, 223-8639 Japan
Tel; 81-45-544-3613 Fax;
E-mail;
URL; <http://panasonic.co.jp/pss/>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving

Personal digital assistant (Model: JT-H470MC) is connected to financial industry such as credit company or bank via settlement center. It meets the demand of expanding market. (credit cards, debit cards or multi-payment account service.) This product is convenient for various businesses such as life and non-life insurance company and delivery-to-home service company that must settle account on visits and deliveries.

- Compact and light weight.(size reduced by 50% and weight, and weight reduced by 33% compared to our previous model.)
- Low power consumption. (8% reduction compared to our previous model.)



Products/Model :
JT-H470MC-10

Eco-products No.181

OA / IT Equipments

Liquid crystal television receivers

LIVING STATION large-size digital LCD projection television

SEIKO EPSON CORPORATION

3-3-5 Owa, Suwa-shi, Nagano-ken, 392-8502 Japan

Tel; Fax;

E-mail; eco@exc.epson.co.jp

URL; <http://www.epson.co.jp/e>

Category:

- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

LIVING STATION represents a new concept in large-screen televisions, realized using Epson's cutting-edge digital LCD projection technology. The superfine image generated by the 3LCD system (high-temperature polysilicon LCD 3-panel system) is enlarged by a projection lens and reflected onto the screen by a mirror. One of the LIVING STATION models, the 57V-inch LS57S1, has a power consumption of 198 W during use, which is less than half that consumed by a 50V-inch plasma television and the same as a 37V-inch LCD television. The television is only 40 cm deep and weighs 56 kg, about half the weight of a conventional CRT television.



Products/Model :
LIVING STATION

Eco-products No.182

OA / IT Equipments

Office computers

Disk Array Subsystem SANRISE USP

Hitachi, Ltd. Disk Array Systems Division

1 Horiyamashita, Hadano-shi, Kanagawa-ken, 259-1304 Japan

Tel; 81-3-5471-2201 Fax; 81-3-5471-2549

E-mail; SANRISE@ml.itg.hitachi.co.jp

URL; <http://www.hitachi.co.jp/sanrise> (Japanese Only)

Category:

- A1. Global Warming
- A3. Hazardous Substances
- A5. Resource Consumption

SANRISE USP establishes a new industry category, bringing to reality the virtualization of internal. SANRISE USP has a plan corresponding to RoHS Directive. Energy efficiency (based on Japanese Energy Saving Low) : 0.11W/GB

1) Directive 2002/95/EC of the European Parliament and of the council on the restriction of the use of certain hazardous substances in electrical and electronic equipment



Products/Model :
SANRISE USP

Eco-products No.183

OA / IT Equipments

Office computers

Water-cooled server computers, "Express Server"

NEC Corporation

7-1, Shiba 5 cho-me., Minato-ku, Tokyo, 108-8001 Japan

Tel; 81-3-3798-6617 Fax; 81-3-3798-9186

E-mail;

URL; <http://www.nec.co.jp/>

Category:

- A1. Global Warming
- B4. Higher Quality
- B5. Energy Saving

As server computers are requested to improve the performances, the energy consumption of CPU, heat value and noise are gradually getting higher and higher, and bigger and bigger. As NEC's main users of server computers are business users, we focused to develop the products with low-noise and with high cooling performance, so that our users can operate our products in a comfortable manner in their office. NEC developed module unit of cooling systems for sever computers and we could achieve the noise of 29.6dB, on the other hand the average noise of server computers is 45dB. Also, NEC introduced the energy saving technology and we could reduce the energy consumption by 90% (270W→30W). At the same time, we also could reduce CO₂ emissions from 19,563 tons to 2,155 tons.



Products/Model :
Express5800/110Ca

Eco-products No.184

OA / IT Equipments

Personal computers

Notebook PC

Sony Corporation

6-7-35 Kitashinagawa Shinagawa-ku, Tokyo, 141-0001 Japan

Tel; 81-3-5448-2111 Fax; 81-3-5448-2244

E-mail;

URL; <http://www.sony.net>

Category:

- A3. Hazardous Substances
- A5. Resource Consumption
- B1. Recyclability

- (1) Cabinet and the main printed wiring boards do not contain halogenated flame retardants.
- (2) Lead-free solder is used for soldering the main printed wiring boards.
- (3) Paper is used for the packaging cushion instead of polystyrene form.
- (4) 100% recycled magazine paper is used for the carton's top layer, and VOC(Volatile Organic Compound)-free vegetable oil based ink is used for printing carton.



Products/Model :
VGN-T71B/L

Eco-products No.185

OA / IT Equipments

Personal computers

Adopted Bio-based Plastic to Notebook Personal Computer

FUJITSU LIMITED

4-1-1 Kamikodanaka, Nakahara-ku, Kawasaki-shi, Kanagawa, 211-8588
Japan
Tel; 81-44-754-3417 Fax; 81-44-754-3326
E-mail; ecobox@fujitsu.com
URL; <http://jp.fujitsu.com/about/csr/eco/>

Category:

- A3. Hazardous Substances
- A5. Resource Consumption
- B5. Energy Saving
- B7. Usage of Recycled Materials
- C3. Design and Material selection

Materials: Developed and adopted bio-based plastic for large chassis. Reduced life cycle CO₂ emissions by 15% compared to previous petrochemical plastics from the results of LCA analysis.
Chemical Substances: Applied halogen-free resin for plastic chassis. Partially used lead-free solder to printed circuit board.
Recycle: Applied recycled magnesium alloy for the part of chassis. Applied recycled plastics for the part of components.
Energy Saving: Conformed to the International Energy Star Program.



Products/Model :

FMV-BIBLO NB80L

Eco-products No.186

OA / IT Equipments

Personal computers

Type III Environmental Label to Desktop Personal computer

FUJITSU LIMITED

4-1-1 Kamikodanaka, Nakahara-ku, Kawasaki-shi, Kanagawa, 211-8588
Japan
Tel; 81-44-754-3417 Fax; 81-44-754-3326
E-mail; ecobox@fujitsu.com
URL; <http://jp.fujitsu.com/about/csr/eco/>

Category:

- A3. Hazardous Substances
- B1. Recyclability
- B5. Energy Saving
- B7. Usage of Recycled Materials
- C3. Design and Material selection

Environmental Label: Acquired System Certification of EcoLeaf Type III Label organized by Japan Environmental Management Association for Industry (JEMAI) and disclose the LCA data of individual products through EcoLeaf.

Chemical Substances: Applied halogen-free resin for plastic chassis. Chrome-free steel plate is used.

Recycle: Applied recycled plastics for the part of components.

Energy Saving: Conformed to the International Energy Star Program.



Products/Model :

FMV-C5200(Display is not included)

Eco-products No.187

OA / IT Equipments

Personal computers

Personal Computer, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Light-weight body of about 999g due to thin molding of magnesium alloy, machined liquid crystal display, reduced number of internal parts. Compact size smaller than B5 despite 10.4 inch XGA (1024 × 768) full-size screen and 17mm key pitch keyboard are equipped. Easily packable into your favorite bag and body is so light that you almost forget that you are actually carrying it. Achieved world longest drive of about 9 hours with standard battery due to newly developed high-capacity battery and unique power-saving design. Data is based on 10.4 inch liquid crystal laptop PC as of April 26, 2005. You can use the PC without worrying about power source even when you go out. Lead-free solder is employed in mounting main printed circuit board.



Products/Model :
Personal Computer, CF-R4

Eco-products No.188

OA / IT Equipments

Personal computers

Personal Computer, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Achieved light-weight body due to thin molding of magnesium alloy, machined liquid crystal display, device of internal mechanism, and so on. Light-weight body of about 1260g (standard model) in 12.1 inch liquid crystal (light-weight model is about 1040g). Achieved world longest drive of about 12 hours with standard battery due to high-capacity battery (about 400g) equipped and unique power-saving design. Data is based on 12.1 inch XGA liquid crystal laptop PC as of April 26, 2005. You can use the PC for almost entire working hours without worrying about power source even when you go out. Lead-free solder is employed in mounting main printed circuit board.



Products/Model :
Personal Computer, CF-T4

Eco-products No.189

OA / IT Equipments

Personal computers

Personal Computer, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Achieved world lightest weight of about 1199g due to employment of shell drive (open-top style drive), thin molding of magnesium alloy, employment of thin LCD frame, and fanless design. Optical drive is equipped, and data is based on 12.1 inch XGA liquid crystal laptop PC as of April 26, 2005. Achieved longtime drive of about 8 hours by standard battery. Lead-free solder is employed in mounting main printed circuit board.



Products/Model :
Personal Computer, CF-W4

Eco-products No.190

OA / IT Equipments

Personal computers

Personal Computer, Energy saving, Hazardous substance, Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Achieved world lightest weight of about 1530g due to employment of shell drive (open-top style drive), thin molding of magnesium alloy, employment of thin LCD frame, and fanless design. Optical drive is equipped, and data is based on 14.1inch SXGA liquid crystal laptop PC as of April 26, 2005. Achieved longtime drive of about 7 hours by standard battery. Lead-free solder is employed in mounting main printed circuit board.



Products/Model :
Personal Computer, CF-Y4

Eco-products No.191

OA / IT Equipments

Personal computers

Environmentally conscious mobile note PC

TOSHIBA CORPORATION Personal Computer & Network Company

1-1, Shibaura 1-Chome, Minato-Ku, Tokyo, 105-8001 Japan

Tel; Fax;

E-mail;

URL; <http://www.dynabook.com/>

Category:

- A3. Hazardous Substances
- B3. Resource Saving
- B5. Energy Saving
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

The feature of this new model is the environmental harmony, and the following points are improved.

- (1) For conserving resources, high-density and light-weight design was adopted. The waste materials that generated in the manufacture of a print-board were reduced to a half.
- (2) For saving energy, the power consumption in the stand-by mode was reduced. The high brightness of LCD with the suppressed power consumption was realized.
- (3) For recycling, a double-face tape of peeling-off type was newly developed to make the recycling easy.
- (4) For reducing environmentally hazardous substances, a halogen-free and Sb-free circuit board was developed. The packaging with lead-free solder was also realized. Since January, 2005, the PC equipped with the print-board and casing which cleared the RoHS restriction has been shipped to the market.



Products/Model :
dynabook SS M10

Eco-products No.192

OA / IT Equipments

Parts, attachments and accessories of personal computers

IP Telephony System

Hitachi Communication technologies, Ltd

6-26-3 Minami-Ohi, Shinagawa-ku, Tokyo, 140-0013 Japan

Tel; 81-3-6404-1232 Fax; 81-3-6404-0555

E-mail; web-adm@hitachi-com.co.jp

URL;

Category:

- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

You can use your PC on the desk as a telephone by using a soft phone and realizes space-saving. A telephone on your desk is unnecessary by installation a soft phone. It comes true to save the space of your desk. The telephony server is small and light in comparison with model PABX conventionally, too. It is possible to put it on 19 inches rack. The power consumption of the server reduces 26%. (at time to implement comparison with our PABX, 100 extension telephones) The former PABX function is followed. A former telephone, PSTN line are possible, too. By cooperation with a PC application software, you can dial by just one clicking of a telephone number.

- Soft phone: PC software to realize telephone ability by keeping USB handsets etc, and using it.



Products/Model :
IPTOWER-SP

Eco-products No.193

OA / IT Equipments

Magnetic disc equipment

Hard Disk Drive

Hitachi Global Storage Technologies

6-27-18 Minami-Ohi, Shinagawa-ku, Tokyo, 140-0013 Japan

Tel; 81-3-5471-273 Fax;

E-mail;

URL; <http://www.hitachigst.com/portal/site/hgst/>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B4. Higher Quality
- C1. Materials Extraction
- C3. Design and Material selection

Hitachi 100-Gigabyte Notebook Hard Drives Offer Advanced Feature Set For Broad Range Of End-User Needs.Low power consumption (Energy efficiency is reduced to 1/20 of the target¹⁾ based on Japanese Energy Saving Law.) RoHS compliant²⁾ (At September 2004) 100GB maximum capacity

- 1) The target value: 0.16 W/GB(Category: E, Class: Direct Access Storage Devices)
- 2) RoHS: DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the restriction of the use of certain hazardous substances in electrical and electronic equipment.



Products/Model :

Travelstar 5K100

Eco-products No.194

OA / IT Equipments

Magnetic disc equipment

Superior De-materialized 2.5 inch PATA Magnetic Disc Equipment

FUJITSU LIMITED

4-1-1 Kamikodanaka, Nakahara-ku, Kawasaki-shi, Kanagawa, 211-8588 Japan

Tel; 81-44-754-3417 Fax; 81-44-754-3326

E-mail; ecobox@fujitsu.com

URL; <http://jp.fujitsu.com/about/csr/eco/>

Category:

- A3. Hazardous Substances
- B4. Higher Quality
- B5. Energy Saving
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

Materials: Reduced idling electric consumption to 0.6W due to the improvement of drive system of spindle motor and energy saving of control circuit. Energy consumption efficiency is less than 0.005W/GB and significantly improved compared to predecessors.

Noise Reduction: Achieved 2.6B(Bel) low noise when idling and reduced previous noise by 10% by strengthen the rigidity of mechanical parts.

Chemical Substances: Cadmium, mercury, lead, hexavalent chromium, PBB, and PBDE are complied to EU RoHS Directive.



Products/Model :

MHV2xxxAH series

Eco-products No.195

OA / IT Equipments

Optical disc equipment

Superior De-materialized Optical Disc Equipment

FUJITSU LIMITED

4-1-1 Kamikodanaka, Nakahara-ku, Kawasaki-shi, Kanagawa, 211-8588
Japan
Tel; 81-44-754-3417 Fax; 81-44-754-3326
E-mail; ecobox@fujitsu.com
URL; <http://jp.fujitsu.com/about/csr/eco/>

Category:

- A5. Resource Consumption
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C3. Design and Material selection

Materials: Reduced previous volume and weight by 45%.
Energy Saving: Reduced previous quiescent current by up to 10%.
Environmental Label: Obtained the world's first EcoLeaf Type III label organized by Japan Environmental Management Association for Industry (JEMAI) to be given to an MO disk drive.



Products/Model :
DynaMO 1300LT

Eco-products No.196

OA / IT Equipments

Optical disc equipment

External Optical Disc Drive

Panasonic Communications Co., Ltd.

1080 Takano, Kikusui-Machi, Tamana-Gun, Kumamoto, 865-0193 Japan
Tel; 81-968-86-4385 Fax; 81-968-86-4473
E-mail;
URL; <http://panasonic.co.jp/pcc/>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B5. Energy Saving
- C2. Material and Components Production
- C3. Design and Material selection

[Product Features]

Portable DVD multi-drive of super multi specifications. In addition to DVD-RAM, DVD-R, DVD-RW, recording to +R, +RW, CD-R and CD-RW is possible. Designed to cope with discs recorded by DVD recorders. A variety of software is attached as accessories from video editing to data backup.

[Eco-leaf]

The following environmental information in every life-cycle stage of the product from material manufacturing, product manufacturing, distribution, use, up to disposal will be quantitatively disclosed;

- Emission load to environment such as global warming, acidification, ozone layer depletion, water pollution, etc.
- Consumption load to nature such as depletion of energy and other resources.

[Other Environment Related Information]

- Assembly of this product and manufacture of its main components (mounted circuit boards) are carried out in ISO14001 certified plants.
- Specified bromine fire retardants (PBB, PBDE) are not used for manufacture of exterior plastic package materials.
- Lead solder is not used for mounting main circuit boards.



Products/Model :
Portable DVD MULTI Drive

Eco-products No.197

OA / IT Equipments

Printers

Fast, Compact Printer for Home Office/Small Office

Canon Inc.

30-2, Shimomaruko 3-chome, Ohta-ku, Tokyo, 146-8501 Japan

Tel; 81-3-3758-2111 Fax; 81-3-3758-1160

E-mail;

URL; <http://www.canon.com>

Category:

- A1. Global Warming
- B5. Energy Saving
- B7. Usage of Recycled Materials
- C3. Design and Material selection
- C6. End-of-Life

Canon's "On-Demand Fixing technology" which requires no pre-heating of the fixing unit makes possible energy-efficiency and quick-start of zero warm-up during standby mode. It is completely silent in standby mode due to its fan-less design, and quiet even during printing.



Products/Model :

Laser Beam Printer, LBP-1120

Eco-products No.198

OA / IT Equipments

Printers

PIXMA iP4000 Inkjet Printer: Energy Saving

Canon Inc.

30-2, Shimomaruko 3-chome, Ohta-ku, Tokyo, 146-8501 Japan

Tel; 81-3-3758-2111 Fax; 81-3-3758-1160

E-mail;

URL; <http://www.canon.com>

Category:

- A1. Global Warming
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

With the introduction of the following energy-saving technologies, daily power consumption was reduced by about 71%, compared with Canon's conventional machine.

- (1) Clock stop to logic circuit
 - (2) Low-power mode control system
 - (3) Introduction of synchronous rectification DC/DC converter
 - (4) Improvement of firmware
- These energy-saving technologies substantially reduced both power-off and stand-by power consumption.



Products/Model :

PIXMA iP4000

Eco-products No.199

OA / IT Equipments

Printers

PIXMA iP1500, Elimination of hazardous substances

Canon Inc.

30-2, Shimomaruko 3-chome, Ohta-ku, Tokyo, 146-8501 Japan

Tel; 81-3-3758-2111 Fax; 81-3-3758-1160

E-mail;

URL; <http://www.canon.com>

Category:

- A3. Hazardous Substances
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

This product eliminates hazardous substances with adopting hexavalent chromium-free components (e.g. steel plates, screws) and lead-free components (e.g. solders, cables). With the introduction of these hazardous substances eliminating technologies, this product complies with the RoHS Directive, which restricts or prohibits the use of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), and polybrominated diphenyl ethers (PBDE).



Products/Model :

PIXMA iP1500

Eco-products No.200

OA / IT Equipments

Printers

STYLUS PHOTO RX700 multifunction inkjet printer

SEIKO EPSON CORPORATION

3-3-5 Owa, Suwa-shi, Nagano-ken, 392-8502 Japan

Tel; Fax;

E-mail; eco@exc.epson.co.jp

URL; <http://www.epson.co.jp/e>

Category:

- B5. Energy Saving
- B1. Recyclability
- B4. Higher Quality
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

The Epson Group has made significant progress in lowering the power consumption of printers, while continuing to pursue high-quality printing (Graph 2). This can be attributed to our product development focus on reducing power consumption not only during use, but also when the power is off or in standby mode. The STYLUS PHOTO RX700, released in FY2004, is the flagship model of the All Photo Colorio series, with photo printing capability using Epson's durable "Tsuyo-ink", as well as scanner and copier functions. Its total power consumption per day is 45% less than the STYLUS PHOTO RX600/RX610 released in FY2003 and 55% less than the STYLUS SCAN 2800/EPSON 1000 ICS released in FY2001.



Products/Model :

STYLUS PHOTO RX700

Eco-products No.201

OA / IT Equipments

Printers

Lead and hexavalent chromium - free printers,

NEC Corporation

7-1, Shiba 5 cho-me., Minato-ku, Tokyo, 108-0014 Japan

Tel; 81-3-3798-6617 Fax; 81-3-3798-9186

E-mail;

URL; <http://www.nec.co.jp/>

Category:

- A3. Hazardous Substances
- B5. Energy Saving
- B7. Usage of Recycled Materials

Based on NEC's green product development policy, NEC developed environmental conscious printers with lead-free, hexavalent chromium-free, with usage of recycled plastics and non-halogenated plastics. Also, this product achieved the energy reduction by 24% during its operation compared with the predecessors.



Products/Model :
MultilImpact 700JX3

Eco-products No.202

OA / IT Equipments

Parts, attachments and accessories of printers

Decolorable Toner (e-blue)

TOSHIBA CORPORATION Industrial and Power Systems & Services Company

1-1, Shibaura 1-Chome, Minato-Ku, Tokyo, 105-8001 Japan

Tel; 81-3-3457-3793 Fax; 81-3-5444-9188

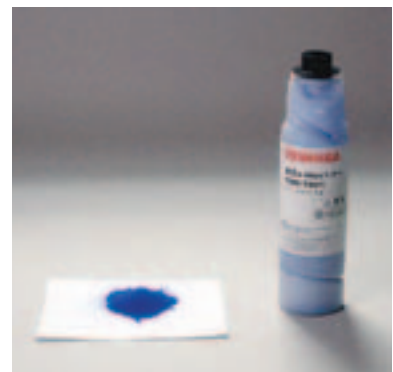
E-mail; market@hby.toshiba.co.jp

URL; http://www.toshiba.co.jp/efort/product/ink/index_j.htm

Category:

- A5. Resource Consumption
- B1. Recyclability
- B3. Resource Saving
- B7. Usage of Recycled Materials
- C5. Product Use, Maintenance and Repair

Decolorable Toner(e-blue) – the optimum solution for reducing the volume of paper used in the office toner that can be erased several times will enable the reuse of printer paper in the office. The new paper consumption at office was reduced to 40% by using "e-blue". "e-blue" can reduce office waste and environmental burden.



Products/Model :
e-blue

Eco-products No.203

OA / IT Equipments

Displays

Superior De-materialized and Energy Saving Display

FUJITSU LIMITED

4-1-1 Kamikodanaka, Nakahara-ku, Kawasaki-shi, Kanagawa, 211-8588
Japan
Tel; 81-44-754-3417 Fax; 81-44-754-3326
E-mail; ecobox@fujitsu.com
URL; <http://jp.fujitsu.com/about/csr/eco/>

Category:

- A3. Hazardous Substances
- B3. Resource Saving
- B5. Energy Saving
- C1. Materials Extraction
- C5. Product Use, Maintenance and Repair

Materials: Reduced the volume of a product by 18% compared to previous products. Reduced life cycle CO₂ emissions by 27% from the results of LCA analysis.
Chemical Substances: Used lead-free solder to printed circuit board in order to reduce lead amounts.
Recycle: Applied recycled plastics for the part of components.
Energy Saving: Conformed to the International Energy Star Program.
Operating electricity consumption: 28.4W, Sleeping mode: 1.31W, Off mode: 0.8W.



Products/Model :
VL-153SS

Eco-products No.204

OA / IT Equipments

Input-output systems

CanoScan LiDE 500F, Energy Saving

Canon Inc.

30-2, Shimomaruko 3-chome, Ohta-ku, Tokyo, 146-8501 Japan
Tel; 81-3-3758-2111 Fax; 81-3-3758-1160
E-mail;
URL; <http://www.canon.com>

Category:

- A1. Global Warming
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

With the introduction of the following energy-saving technologies, both operating and stand-by power consumption have been substantially reduced.

- (1) Uses a sleep-synchronous system that shuts off power supply to image reading system and motor system during PC sleep.
- (2) Uses a low-power LED from conventional fluorescent lamp as a light source of a document reader. These energy saving technologies have reduced daily power consumption by around 85% in comparison with a conventional machine.



Products/Model :
CanoScan LiDE 500F

Eco-products No.205

OA / IT Equipments

Input-output systems

Superior De-materialized Network Server

FUJITSU LIMITED

4-1-1 Kamikodanaka, Nakahara-ku, Kawasaki-shi, Kanagawa, 211-8588
Japan
Tel; 81-44-754-3417 Fax; 81-44-754-3326
E-mail; ecobox@fujitsu.com
URL; <http://jp.fujitsu.com/about/csr/eco/>

Category:

- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving
- C1. Materials Extraction
- C5. Product Use, Maintenance and Repair

Materials: Reduced installation space, volume, and the number of cables by 30% respectively by combining the capabilities of multiple units in a single unit. Reduced CO₂ emissions of raw material stage by 30% from the results of LCA analysis.

Energy Saving: Reduced electricity consumption by 40% compared to previous multiple units.



Products/Model :

IPCOM S series

Eco-products No.206

OA / IT Equipments

Input-output systems

Superior De-materialized and Energy Saving A6 Flat-bed Scanner

PFU LIMITED

Nu 98-2 Unoke, Kahoku-shi, Ishikawa, 929-1192 Japan
Tel; 81-44-540-4538 Fax; 81-44-540-4639
E-mail; scanners@pfu.fujitsu.com
URL; <http://www.pfu.fujitsu.com/>

Category:

- A3. Hazardous Substances
- B3. Resource Saving
- B5. Energy Saving
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

Materials: Achieved smallest installation area and product volume in this product category. (W145×D234×H40mm)

Chemical Substances: No use of halogen related substances to the plastic chassis. No use of cold-cathode tube contained mercury by adopting LED for its luminous source.

Energy Saving: Conformed to the International Energy Star Program and one of the best in the A6 flat-bed class.

Operating electricity consumption: less than 8W, Sleeping mode: less than 2W, Off mode: less than 1W, Quietness: Achieved the noise level less than 42db.



Products/Model :

fi-60F

Eco-products No.207

OA / IT Equipments

POS Terminal

Environmentally conscious POS Terminal ST-7000 for the users of retailing

TOSHIBA TEC CORPORATION

Oval Court Ohsaki Mark East 2-17-2 Higashi Gotanda, Shinagawa-ku,
Tokyo, 141-8664 Japan

Tel; 81-3-6422-7160 Fax; 81-3-6422-7121

E-mail; environment@toshibatec.co.jp

URL; http://www.toshibatec.co.jp/index_e.htm

Category:

- A3. Hazardous Substances
- B1. Recyclability
- B2. Longevity
- B3. Resource Saving
- C3. Design and Material selection

This TOSHIBA product is the newest POS terminal, having the following features from the point of Eco-material view.

- (1) Easy disassembly taking account of the recycle and reuse of the parts.
- (2) Response to upgrading by the separation from the body I/F part based on value lifetime analysis.
- (3) Reduction of the environmental hazard substance: Design supposing the abolition of six substances designated by RoHS Use of the halogen-free plastic and the halogen-free printed board.
- (4) Improvement of maintenance Adoption of the sliding mechanism for easy replacement of the engine board, the HDD and the battery for back up.



Products/Model :

System using ST-7000 with optional devices

Eco-products No.208

OA / Furniture

Particle board, Glued laminated timber

MIECO Decorative Electron Beam Foil Chipboard (EBFC)

Mieco Manufacturing Sdn Bhd

30.01, 30th Floor, Menara Multi-Purpose, Capital Square, No 8 Jalan

Munshi Abdullah, Kuala Lumpur, 50100 Malaysia

Tel; 603-2694 6233 Fax; 603-2694 2933

E-mail; lml.mieco.com.my

URL; <http://www.mieco.com.my>

Category:

- B1. Recyclability

MIECO EBFC uses premium quality MIECO boards decorated with EB foil laminates. The advanced electron beam curing technology has unparalleled resistance against stains, UV light and abrasion. The product offers a variety of solid and woodgrain colours which is widely used for offices, kitchen cabinets and home furniture.



Eco-products No.209

OA / Furniture

Particle board, Glued laminated timber

Mieco Decorative Polymer Faced Chipboard (PFC)

Mieco Manufacturing Sdn Bhd

30.01, 30th Floor, Menara Multi-Purpose, Capital Square, No 8 Jalan
Munshi Abdullah, Kuala Lumpur, 50100 Malaysia
Tel; 603-2694 6233 Fax; 603-2694 2933
E-mail; lml.mieco.com.my
URL; <http://www.mieco.com.my>

Category:

- B1. Recyclability

Featuring a wide range of colourways, the MIECO Decorative Polymer Faced Chipboard (PFC) is furniture grade panel laminated with superior polymer coated paper. The product also offers solid and woodgrain colours engineered with optical embossed finishes, which is excellent for the application of home and office furnitures.



Eco-products No.210

OA / Furniture

Metal desks, tables and chairs

Parts-sharing table system

Okamura Corporation

Tenri Bldg., Kitasaiwai, Nishi-ku, Yokohama, 220-0004 Japan
Tel; 81-45-319-3401 Fax; 81-45-319-3515
E-mail;
URL; <http://www.okamura.co.jp>

Category:

- A4. Waste
- B1. Recyclability
- B2. Longevity
- B7. Usage of Recycled Materials
- C6. End-of-Life

Sharing parts materialized "simple structure". It is a very versatile table system for general office use.

Produced by ISO14001 registered division. Arm material, that is easier to recycle, is used as primary material. Utilize recycled materials in a positive manner. (Adjuster portion: nylon 50%, post beam cap: ABS 100%)



Products/Model :
DE20AA-MG75

Eco-products No.211

OA / Furniture

Metal desks, tables and chairs

Easy-recyclable Office chair of low-chemical substance

Okamura Corporation

Tenri Bldg., Kitasaiwai, Nishi-ku, Yokohama, 220-0004 Japan

Tel; 81-45-319-3401 Fax; 81-45-319-3515

E-mail;

URL; <http://www.okamura.co.jp>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- A4. Waste
- B2. Longevity
- B7. Usage of Recycled Materials

This office chair uses no adhesive at all and discharges low-chemical substances. It has a patterned material and is designed for ease of recycling.

It achieves a decomposition rate of about 85% thanks to reduced parts and fractionation design. The seat cushion is produced with molded urethane and polyester cloth. No adhesive is used to finish the upholstered surface, resulting in easy fractionation. It uses recycled materials (seat frame /PA/50%, back frame /PA/50%) for resin parts as far as possible. It is low maintenance and designed for long term use. It meets the Green Purchasing standard and is an Eco-mark product. Award-winning design. Production undertaken by ISO14001 registered division.

The first office furniture business in Japan to achieve United States' GREEN GUARD environmental criteria.



Products/Model :

Contessa · CM51AB-FBH8

Eco-products No.212

OA / Furniture

Information paper

Top-quality clean paper, STACLEAN RC

SAKURAI CO., LTD.

MG Ikenohata Bldg. 1-2-18 Ikenohata, Taito-ku, Tokyo, 110-0008 Japan

Tel; 81-3-3827-4441 Fax; 81-3-3827-4321

E-mail;

URL; <http://www.sakurai.co.jp>

Category:

- A3. Hazardous Substances
- A4. Waste
- B1. Recyclability
- B4. Higher Quality
- C6. End-of-Life

STACLEAN RC, has a worldwide reputation among engineers in semiconductor, electronics and other industries for top-quality clean paper. STACLEAN RC, used for more than twenty five years in clean rooms, is impregnated with acrylic resin and generate virtually no dust particles, and yet capable for recycling as normal paper. STACLEAN RC does not contain any restricted or banned materials and chemical substances under environmental standard. We recently add AS STACLEAN, ESD clean paper in our STACLEAN line of products. Users can enjoy very wide variety of STACLEAN product family that is growing and keeps innovating every day.



Products/Model :

STACLEAN RC / laser printers and PPC copiers

Eco-products No.213

OA / Furniture

Industrial organic chemicals

GAST 3 Air Blower with 100% USE of HFC 152a

KANEDA CO., LTD

1-34-9 Asakusabashi, Taito-ku, Tokyo, 111-8612 Japan

Tel; 81-3-3861-1321 Fax; 81-3-3861-1328

E-mail; t-suzuki@kaneda.co.jp

URL; <http://www.kaneda.co.jp/>

Category:

- A1. Global Warming
- A2. Air Pollution

Upon a strong demand on the environment aspect from many customers, the product of a type of HFC152a has been newly developed aiming less affect to Global Warming Potential, G.W.P, compared with a conventional type of HFC134a, in which G.W.P of HFC152a has been reduced to 1/10 of conventional type, HFC134a. In addition, the number of times in use per one aerosol can is fairly increased by adopting one size larger can than that for conventional type as an economical aerosol container. Further to this, as the result of the in-house spray test, measuring the lasting time for spraying with a nozzle fully until an aerosol can gets to empty, it was 150sec for a conventional type of HFC134a and it was 185sec for GAST3. Accordingly, GAST3 has been economical with over 20% extra volume compared with a volume of conventional type. The odor may be negligible due to 100% use of HFC152a.



Products/Model :
GAST 3, 390g

Eco-products No.214

OA / Furniture

Mechanical pencils

Eco-friendly mechanical pencil for general use

Platinum Pen Co., Ltd.

2-5-10, Higashi Ueno, Taito-ku, Tokyo, 110-8622 Japan

Tel; 81-3-3831-3412 Fax; 81-3-3835-7876

E-mail;

URL;

Category:

- B1. Recyclability
- B2. Longevity
- B3. Resource Saving
- B7. Usage of Recycled Materials
- C5. Product Use, Maintenance and Repair

This improved pencil can be used until only 0.5mm of lead remains (Previously, lead needed replaced at 12.4mm) In addition to extending its writing life by 20%, it minimizes waste of pencil lead, making more efficient use of resources. Recycled plastic is used for the barrel, making it environmentally-friendly.



Products/Model :
Zeroshin Glamour / mini/MGMQ-100

Eco-products No.215

OA / Furniture

Marking pens

Long lasting, refillable highlighter for offices and schools

Tombow Pencil Co., Ltd.

6-10-12, Toshima, Kita-ku, Tokyo, 114-8583 Japan

Tel; 81-3-3912-1181 Fax; 81-3-3912-1536

E-mail;

URL; <http://www.tombow.com>

Category:

- A3. Hazardous Substances
- A5. Resource Consumption
- B3. Resource Saving
- B7. Usage of Recycled Materials
- C1. Materials Extraction

We help to reduce the environmental burden and help to prevent global warming by using resources effectively. The product reduces waste by using recycled materials.



Products/Model :

Twin Highlighter : WA-TC

Eco-products No.216

OA / Furniture

Pencil lead and holders, including mechanical pencil lead

Spare leads with case & refill leads made from recycled materials

Tombow Pencil Co., Ltd.

6-10-12, Toshima, Kita-ku, Tokyo, 114-8583 Japan

Tel; 81-3-3912-1181 Fax; 81-3-3912-1536

E-mail;

URL; <http://www.tombow.com>

Category:

- A3. Hazardous Substances
- A5. Resource Consumption
- B3. Resource Saving
- B7. Usage of Recycled Materials
- C1. Materials Extraction

Use of recycled materials helps to prevent global warming, reduces the environmental burden and makes more efficient use of resources.



Products/Model :

Recycled Spare Leads : R5-REW

Eco-products No.217

OA / Furniture

Correcting tool

W-400, Brush-type correcting fluid to minimize environmental impact

Marujyu Kasei Co., Ltd

1748, Kamiseka, ichikawa-cho, Kanzaki-gun, Hyogo, 679-2303 Japan

Tel; 81-790-27-1300 Fax; 81-790-27-1303

E-mail; factory@misonon.com

URL; <http://www.misonon.com>

Category:

- A4. Waste
- B2. Longevity
- B7. Usage of Recycled Materials
- C3. Design and Material selection
- C4. Product Manufactures

This correction fluid uses 100% recycled polymer. The duty cycle of recycled resin is 85% of the total weight of the product. There are no harmful substances in the fluid or recycled resin. The waste fluid generated during on production is implemented with sludge removal, ph control etc, and is drained as treated water which is harmless to the environment.



Products/Model :

GANGY MISONON W-400

Eco-products No.218

OA / Furniture

Stationary file

Long-life office document file

KING JIM CO., LTD.

10-18, 2-chome, Higashi-Kanda, Chiyoda-ku, Tokyo, 101-0031 Japan

Tel; 0120-79-8107 Fax;

E-mail;

URL; <http://www.kingjim.co.jp/>

Category:

- B1. Recyclability
- B2. Longevity
- B7. Usage of Recycled Materials
- C3. Design and Material selection
- C6. End-of-Life

Recycled Paper: 100% recycled paper is used for the inner cover board and the spine paper. **Re-Use:** The mechanism can be attached to the new file cover for re-use, while the old file cover can also be re-used by attaching the preservation mechanism for the storage purpose file. **Long life:** Long-term use is possible by replacing the spine paper and featuring the excellent durable file cover. **Olefin material:** Use the olefin material that does not emit hydrogen chloride gas. **Classified disposal:** Classified disposal is simple, since the mechanism can be removed from the file cover easily.



Products/Model :

KING FILE SUPER DOTCH(attachable/removable)N

Eco-products No.219

OA / Furniture

Correction tape

Correction tape that cuts cost and waste

PLUS CORPORATION

20-11, Otowa 1-Chome, Bunkyo-ku, Tokyo, 112-0013 Japan

Tel; 81-3-3942-1428 Fax; 81-3-3942-3085

E-mail;

URL; <http://bungu.plus.co.jp>

Category:

- A4. Waste
- B3. Resource Saving
- B7. Usage of Recycled Materials
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

This refillable product uses 100% recyclable resin for the refill, therefore cuts down on the amount of waste for disposal. Weight of disposal is approximately 3g-a quarter of that of previous conventional product. The refilling process is fast and simple.



Products/Model :
WHIPER ECO 4

Eco-products No.220

Apparel / Fabric Product

Shirts

Baby Doll; Nursing wear made with Organic Cotton

MO-HOUSE

480-38 Yamanaka Tsukuba-shi Ibaraki-ken 305-0836 Japan

Tel; +81-29-851-7373 Fax; +81-29-856-7755

E-mail; intl@mo-house.net

URL; <http://www.mo-house.net/>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B3. Resource Saving
- B5. Energy Saving
- B6. Environmental Purification

Nursing wear made with Organic Cotton guaranteed by Japan Organic Cotton Association (JOCA). Pretty tunic style, with neat square neck-line, and fluffy puff-sleeves. Simply open the two front pieces. The cloth does not hang over baby's face. With its free (large) width, it can be worn during maternity, and can even be worn when the nursing is over. It is said only 0.2% of cotton is Organic Cotton. This cotton is raised in the U.S.A., the most reliable cotton producing county, mainly in the state of Texas.



Products/Model :
Baby Doll

Eco-products No.221

Apparel /Fabric Product

Dress shirt

Office Uniform after reduction of oil resources use and waste

CHIKUMA & Co., Ltd.

3-3-10, Awaji-cho, Chuo-ku, Osaka-shi, 541-0047 Japan

Tel; 81-6-6222-3289 Fax; 81-6-6222-3665

E-mail; o-alpha@chikuma.co.jp

URL; <http://www.chikuma.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B3. Resource Saving
- B7. Usage of Recycled Materials
- C6. End-of-Life

This garment contains a minimum of 55% PET bottle-recycled polyester, which means it saves oil resources and puts used PET bottles to good use.



Eco-products No.222

Apparel / Fabric Product

Uniform

Office Uniform that saves oil resources and reduces waste

CHIKUMA & Co., Ltd.

3-3-10, Awaji-cho, Chuo-ku, Osaka-shi, 541-0047 Japan

Tel; 81-6-6222-3289 Fax; 81-6-6222-3665

E-mail; o-alpha@chikuma.co.jp

URL; <http://www.chikuma.co.jp>

Category:

- A4. Waste
- A3. Hazardous Substances
- B3. Resource Saving
- B7. Usage of Recycled Materials
- C6. End-of-Life

The cloth is made from material that incorporates at least 55% PET bottle-recycled polyester so it saves oil resources and make use of discarded PET bottles.



Eco-products No.223

Apparel / Fabric Product

Winter uniform

Office uniform that saves oil resources and reduces waste

CHIKUMA & Co., Ltd.

3-3-10, Awaji-cho, Chuo-ku, Osaka-shi, 541-0047 Japan

Tel; 81-6-6222-3289 Fax; 81-6-6222-3665

E-mail; o-alpha@chikuma.co.jp

URL; <http://www.chikuma.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B3. Resource Saving
- B7. Usage of Recycled Materials
- C6. End-of-Life

The clothing is made from material that uses a minimum of 55% PET bottle-recycled polyester. This means it doesn't use oil resources and it reduces waste by using PET bottles.



Eco-products No.224

Apparel /Fabric Product

Futon, including wool futon

International organic certified fiber products (bedding)

HEART CO., LTD.

65-15 Kitakanada Kochi-City Kochi-Pref, 780-0073 Japan

Tel; 81-88-882-4788 Fax; 81-88-882-4822

E-mail; heart@heart-kochi.jp

URL; <http://www.heart-kochi.jp/>

Category:

- A3. Hazardous Substances
- B1. Recyclability
- B6. Environmental Purification
- C4. Product Manufactures
- C6. End-of-Life

Heart Co., Ltd. of Kochi, Japan is the first company in the world to have its products certified "organic". Heart not only uses raw, organic materials (cotton, feather, wool) in the making of the products but also assures that the manufacture of the products avoids the use of chemicals that are harmful to the environment. Every step of Heart's manufacturing process has been checked by third party inspectors and internationally certified "organic" by a group office of ECOCERT of France and by the NSF-QAI of America. Heart has had all of its production and manufacturing processes inspected and certified by third party independent international organizations. We ensure that all our products are of the highest possible quality while using manufacturing processes that are environmentally friendly and kind to nature, setting new standards within the industry.



Products/Model :

International organic certified futon

Eco-products No.225

Commodity / Outdoor Goods / Housing Kit

Bedding except blanket

Good sleep pillow "HIBAMIN"

Hiba Development Co., Ltd

76-2, Oma, Oma, Aomori, 039-4601 Japan

Tel; 81-175-37-4711 Fax; 81-175-32-1011

E-mail; hiba@jomon.ne.jp

URL; <http://www.aomori-hiba.com/>

Category:

- A4. Waste
- B1. Recyclability
- B6. Environmental Purification
- C1. Materials Extraction
- C5. Product Use, Maintenance and Repair

HIBA is a kind of Japanese cypress tree; it's glowing abundantly in Aomori prefecture of Japan. When Aomori HIBA wood is sawed at the saw-mill, a large amount of waste wood is yielded. The stuffing material of a good-sleep pillow "HIBAMIN" is the waste wood of HIBA. Namely, the fragment of the wood is shaped into a pillar-like rod, and then the rod is cut into grains of 8 mm long, and finally the grains are polished to a shape that gives soft-touch feeling to user's head and neck.

If you use "HIBAMINE", relaxing fragrance of HIBA that spreads throughout your bedroom sends you to good sleep and helps the progress of your comfortable sleep; waking up in a fresh mood is also assured. By the respiration effect of the HIBA wood itself, the perspiration in sleeping may be absorbed, and the absorbed sweat is removed on drying. HIBA is a wood material difficult to rot owing to its antibacterial property, so you can use "HIBAMIN" for a long period.



Products/Model :

32*40cm about2kg ¥10,500-

Eco-products No.226

Commodity / Outdoor Goods / Housing Kit

Floor boards

FULL FLAT FLOOR: deck materials of artificial wood

TOSTEM CORPORATION

2-1-1 Oojima Koutoku Tokyo 136-8535 Japan

Tel; 81-3-3638-8187 Fax; 81-3-3638-8352

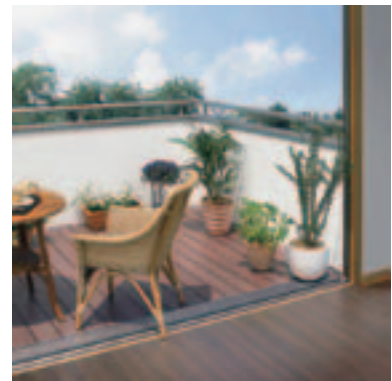
E-mail; shizumurat1@exc.tostem.co.jp

URL;

Category:

- A5. Resource Consumption
- B3. Resource Saving
- B4. Higher Quality
- B7. Usage of Recycled Materials

The deck material of FULL FLAT FLOOR is made of the artificial wood that was produced by blending the resin to the wooden powder. It has a dual structure; the core is a mixed material of wooden powder and polyethylene resin powder. These powders are prepared from the scraps that generated in the processing of the respective materials. So, the deck material of FULL FLAT FLOOR contributes to the effective use of resources. Building up of the deck is easy, because the deck is only placed and fixed on the supporting material of aluminium template.



Eco-products No.227

Commodity / Outdoor Goods / Housing Kit

Wood products, n.e.c., including painted products

Hot-water type floor-heating system "MUKUYUKADAN" for wooden floor.

Intact, private limited company

939-1 Akaoka-chou Kami-gun Kochi, 781-5310 Japan

Tel; 81-887-55-5144 Fax; 81-887-55-2437

E-mail; intact@mxi.netwave.or.jp

URL; <http://www.intact.jp/intact.html>

Category:

- A1. Global Warming
- A4. Waste
- B1. Recyclability
- B3. Resource Saving
- B5. Energy Saving

Hot-water type floor-heating system "MUKUYUKADAN" is assembled by using the domestic natural wood (Japanese cypress, broadleaf tree, etc) that is friendly to not only the human but also the environment. The feature of this floor heating system is the excellent humidity control and the effect like a kind of woods bathing, which provide a comfortable and healthy environment to the clients.

Our company's original construction method has realized a durable floor heating system; it gives great comfort since it is made of natural wood; it gives earthquake-proof structure since it is double-layer flooring. Moreover, the clients can be at ease because there is a ten-year guarantee on "MUKUYUKADAN". We succeeded in reducing cost by making a hot-water panel with the wood of selective felling; this is the first trial in our business circle.

Electric type floor-heating system is also available.



Eco-products No.228

Commodity / Outdoor Goods / Housing Kit

Furniture and fixtures

"TARU-MONOGATARI" furniture made from whisky casks

Suntory Limited

Daiba 2-3-3, Minato-ku, Tokyo, 135-8631 Japan

Tel; 81-3-5579-1131 Fax;

E-mail;

URL; <http://www.suntory.com/>

Category:

- A1. Global Warming
- A4. Waste
- B1. Recyclability
- B2. Longevity
- B3. Resource Saving

Casks made from oak trees of could-be-100-year-old are used for as long as 70years to mature Suntory whisky in the aging cellars, being refilled with freshly distilled new whisky several times. After many years of duty as cradles of whiskies, however, the retired casks had formerly been used wastefully as firewood. Through 20years of study of trial and error, Suntory had established the technique to change these laudable cradles of whisky into oak-wood-furniture of high-quality and long-life naming the series of furniture "Taru-Monogatari (the Tale of Cask)". We utilize, of course, the material to make small articles such as stationery and even the sawdust turns into the glaze for tasteful ceramics. Through this special technique to revive the forest resources, we may say that the carbon dioxide fixation in the oak trees would last over the centuries. It is possible that "The Tale of Cask" continues on "100years in the forest, 70years in the aging cellar and perhaps additional 100years as furniture".



Products/Model :

A Taru-Monogatari Dinner Table and Chairs

Eco-products No.229

Commodity / Outdoor Goods / Housing Kit

Furniture and fixtures

Energy-saving bathroom

TOTO Ltd

I-I, Nakashima 2-chome, Kokurakita-ku, Kitakyushu-City, Fukuoka,
802-8601 Japan

Tel; 81-83-951-2707 Fax; 81-83-922-6789

E-mail;

URL; <http://www.toto.co.jp>

Category:

- A1. Global Warming
- B7. Usage of Recycled Materials
- C5. Product Use, Maintenance and Repair

Wrapping the bathtub with double thermal insulation can keep the bath water warm, similar to the way a thermos retains the heat of drinks. This means another person can use the warm bath water for up to six hours, four times as long as existing products. This means bathwater does not need to be reheated, resulting in energy savings.



Products/Model :
KGQ1721

Eco-products No.230

Commodity / Outdoor Goods / Housing Kit

Sanitary products

Wiping towel for adult care: Wiping fine dirt from excrement

Unicharm Corporation

Keikyū 2nd Building, 25-23 Takanawa 3-chome, Minato-ku, Tokyo,
108-8575 Japan

Tel; 81-3-3449-3571 Fax; 81-3-3448-9335

E-mail;

URL; <http://www.unicharm.co.jp>

Category:

- A4. Waste
- B1. Recyclability
- B2. Longevity
- C3. Design and Material selection
- C4. Product Manufactures

Traditionally, a non-woven cloth was discarded, but parts not used were collected in a sanitary manner and pulverized in a special way to form cotton fibers. This new process allows discarded non-woven cloth to be recycled. Fine dirt from excrement can be gently cleaning liquid wiped with this new product as being treated with towel. If it is used with a special, it may not be rinsed with water after use.



Products/Model :
Lifree wiping towel

Eco-products No.231

Commodity / Outdoor Goods / Housing Kit

Sanitary products

Disposable diaper: Compact size for disposal

Unicharm Corporation

Keikyū 2nd Building, 25-23 Takanawa 3-chome, Minato-ku, Tokyo,
108-8575 Japan

Tel; 81-3-3449-3571 Fax; 81-3-3448-9335

E-mail;

URL; <http://www.unicharm.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B3. Resource Saving
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

Providing treatment tapes at each side of the diaper makes them more compact for disposal than traditional diapers, substantially reducing the amount of garbage from homes with infants. In addition, the introduction of LIME was found to reduce the amount of raw materials compared with an older product, reducing environmental impact.



Products/Model :
Moony Man

Eco-products No.232

Commodity / Outdoor Goods / Housing Kit

Sanitary products

Sanitary napkin: Waste reduction that considers menstrual blood loss

Unicharm Corporation

Keikyū 2nd Building, 25-23 Takanawa 3-chome, Minato-ku, Tokyo,
108-8575 Japan

Tel; 81-3-3449-3571 Fax; 81-3-3448-9335

E-mail;

URL; <http://www.unicharm.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B3. Resource Saving
- C3. Design and Material selection
- C6. End-of-Life

This product is sanitary napkin that combine and use Piece placed between the groins and Sheet applied to the undergarment. The product can exchange only piece with one sheet paved in the undergarment because piece almost absorbs the blood of the menstruation. As a result, it came to be able to reduce the waste at the menstruation largely. About 85% in the weight of the product and about 70% by the amount of piece wrapping use has been reduced compared with a general sanitary napkin. (Comparison with our product for daytime of day when a lot of menstrual bloods are)



Products/Model :
SOFY Body Piece

Eco-products No.233

Commodity / Outdoor Goods / Housing Kit

Sanitary products

Disposable diaper: reduced environment impact of 4% than before product

Unicharm Corporation

Keikyū 2nd Building, 25-23 Takanawa 3-chome, Minato-ku, Tokyo,
108-8575 Japan

Tel; 81-3-3449-3571 Fax; 81-3-3448-9335

E-mail;

URL; <http://www.unicharm.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B3. Resource Saving
- C2. Material and Components Production
- C4. Product Manufactures

This baby diapers use largely improved a production method and new material. We apply this technology to develop the cutting off loss 0 production method. In addition, new product is a better feeling of fitting and dissolved to leak and twist than a before product by changing material, and largely improved product performance. As a result of compared environmental impact with a product in LCA. In this case, we apply LIME (Life cycle Impact assessment Method for Endpoint modeling) which was a Japanese LCIA tool, and having inspected numerical value. It has reduced environment impact of 4% than before product.



Products/Model :

Moony M/L

Eco-products No.234

Commodity / Outdoor Goods / Housing Kit

Sanitary products

Disposable diaper: reduced environment impact of 12% than before product

Unicharm Corporation

Keikyū 2nd Building, 25-23 Takanawa 3-chome, Minato-ku, Tokyo,
108-8575 Japan

Tel; 81-3-3449-3571 Fax; 81-3-3448-9335

E-mail;

URL; <http://www.unicharm.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B2. Longevity
- B3. Resource Saving
- C5. Product Use, Maintenance and Repair

When we compare a disposable diaper for adults with a baby disposable diaper, there becomes very much quantity that is disposed of after use greatly. Therefore we divide an outside diaper and an inside diaper. And it absorbs urine an inside diaper. We try to it's smallest, to do a waste by changing only a part of an absorption parts. In this case, outside diaper LIFREE pads use together that make hard to have become stain with what we changed a diaper structure of an absorption parts. Therefore there became a little change number of times of an outside diaper. (Outside diaper is 5times heavier than inside diaper) As a result of we compared environmental impact with an article in LCA of a product conventionally, and we apply LIME which was a LCIA tool for Japan, and having inspected numerical value, We reduced environment impact of 12% than before product.



Products/Model :

Lifree

Eco-products No.235

Commodity / Outdoor Goods / Housing Kit

Sanitary products

Wet tissues: Reduction of a waste by repacked

Unicharm Corporation

Keikyū 2nd Building, 25-23 Takanawa 3-chome, Minato-ku, Tokyo,
108-8575 Japan

Tel; 81-3-3449-3571 Fax; 81-3-3448-9335

E-mail;

URL; <http://www.unicharm.co.jp>

Category:

- A4. Waste
- B2. Longevity
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

You can use the box of SILCOT WetTissues repeatedly by having you supplement a refill if the contents disappeared. It leads to reduction of a waste. In addition, it is the article which considered the universal design which can easily open out with one finger.



Products/Model :

SILCOT Wet Tissues

Eco-products No.236

Commodity / Outdoor Goods / Housing Kit

Sanitary products

Baby wipes: Largely reduce a waste by using a box repeatedly.

Unicharm Corporation

Keikyū 2nd Building, 25-23 Takanawa 3-chome, Minato-ku, Tokyo,
108-8575 Japan

Tel; 81-3-3449-3571 Fax; 81-3-3448-9335

E-mail;

URL; <http://www.unicharm.co.jp>

Category:

- A4. Waste
- B2. Longevity
- B3. Resource Saving
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

This article is repackable. We can largely reduce a waste by using a box repeatedly. Harmful materials do not use it for an article, and it is made by the subject matter that harmful materials do not appear even if you burn it. And it is considered by raising functionality to reduce a waste.



Products/Model :

Moony Baby Wipes

Eco-products No.237

Commodity / Outdoor Goods / Housing Kit

Surface-active agents

SOPHORON Dishwasher Biodetergent, formulated with Biosurfactant

SARAYA CO., LTD.

2-2-8 Yuzato, Higashisumiyoshi-ku, Osaka, 546-0013 Japan

Tel; 81-6-6797-3111 Fax;

E-mail; takahashi@saraya.com

URL; <http://www.saraya.com/english/>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B1. Recyclability
- B4. Higher Quality
- C6. End-of-Life

"Sophoron" as biosurfactant is a new automatic dishwashing detergent which has both the excellent washing activity of chemically synthetic surfactants and has the high biodegradability of soap. Sophorolipid is a glycolipid biosurfactant produced by yeast fermentation with soybean oil. It has major advantages over chemically synthesized surfactants, namely: lower toxicity, higher biodegradation and better environmental compatibility. Furthermore, sophorolipid is well known as a nontoxic soil-washing agent that can remove hydrocarbon from contaminated soils. In "Sophoron", biodegradable sophorolipid is added as a surfactant, and surfactants that are chemically synthesized from petroleum are not contained in the formulation. Therefore, liquid waste from dishwasher doesn't cause environmental pollution. Furthermore, as sophorolipid is produced from plant materials, unlike petroleum-based surfactants, CO₂ resulting from biodegradation of sophorolipid can be recycled and has no effect on global warming. All of the other ingredients (enzymes, citrate, oxygen bleaching agent and so on) also have environmental compatibility.



Products/Model :

SOPHORON Dishwasher Biodetergent

Eco-products No.238

Commodity / Outdoor Goods / Housing Kit

Makeup and skin care products

"HIBA cream" from HIBA-woods

Hiba Development Co., Ltd

76-2, Oma, Oma, Aomori, 039-4601 Japan

Tel; 81-175-37-4711 Fax; 81-175-32-1011

E-mail; hiba@jomon.ne.jp

URL; <http://www.aomori-hiba.com/>

Category:

- A4. Waste
- B1. Recyclability
- B4. Higher Quality
- C2. Material and Components Production
- C5. Product Use, Maintenance and Repair

HIBA is a kind of Japanese cypress tree, which is glowing abundantly in Aomori prefecture of Japan. When Aomori HIBA wood is sawed at the saw-mill, a large amount of sawdust is obtained as the waste. From the sawdust thus obtained, the essence that is called "Aomori HIBA oil" can be extracted. The essence contains a natural component "Hinokitiol" at about 2% and has a wide antibacterial spectrum. "Hinokitiol" is useful for skin care because of its multi-function: antibacterial effect, whitening effect, UV light absorption, astringent action, etc. However, the duration of the effects is relatively short. As a stabilizing technique of "Hinokitiol", the method to blend it with zinc stearate has been developed. Zinc stearate is the chief ingredient of metallic soap and contains zinc that is an essential element to human skin. "HIBA cream" is the skin-care product that enhanced the stability and the antibacterial activity of "Hinokitiol". ("Hinokitiol": a custom name of isopropyl tropolone).



Products/Model :

32g ¥5,040-

Eco-products No.239

Commodity / Outdoor Goods / Housing Kit

Cosmetics and toilet preparations

Lunaqua is a face mask for strongly acidic electrolyzed water.

Hattori paper co., ltd

171-1 Yamadai, Kinsei-cho Shikokutyuo-shi, Ehime, 799-0112 Japan

Tel; 81-896-58-3005 Fax; 81-896-58-3306

E-mail; hattori@genki.ne.jp

URL; <http://www.hattoripaper.co.jp>

Category:

● C5. Product Use, Maintenance and Repair

Lunaqua is a wet tissue type of basic cosmetic with plenty of strongly acidic electrolyzed water contained in an unwoven fabric, Bemliese. It is not used a kind of paraven and alcohol at all because these stimulate to skin. And an element of cosmetic water is only contained to strongly acidic electrolyzed water. It is pure water that is easy on the skin and slows degradation rather than acidic water that results from electrolyzing normal tap water. Normally doing product commercialization of it is needed to add to preservatives and fungicides. But we succeeded to product commercialization of it for no using preservatives and fungicides by packing it separately. And also strongly acidic electrolyzed water helps to activate skin itself for cluster is small and being easy to penetrate to skin. As this water have an astringent effect, we realize a good condition of makeup after using it. We easily take it in travel for packing one by one. So we recommend it to people having problems to their skin.



Eco-products No.240

Commodity / Outdoor Goods / Housing Kit

Cosmetics, toothpaste and toilet preparations

Kankyo Yusen Foamless Toothpaste (140g)

The Seiyu, Ltd.

1-1, Akabane 2-chome, Kita-ku, Tokyo, 115-0045 Japan

Tel; 81-3-3598-7707 Fax; 81-3-3598-7740

E-mail; eco@seiyu.co.jp

URL; <http://www.seiyu.co.jp>

Category:

- A3. Hazardous Substances
- B3. Resource Saving
- B6. Environmental Purification
- B7. Usage of Recycled Materials
- C3. Design and Material selection

Committed to providing environmentally friendly products, Seiyu offers a lineup of ecofriendly products centered on Kankyo Yusen, a private brand of household products and stationery originally developed by Seiyu. Kankyo Yusen Foamless Toothpaste is one of them. This is a toothpaste without synthetic surfactant, preservative, saccharin, coloring, foaming agents. The box is made from recycled paper.



Products/Model :

Kankyo Yusen Foamless Toothpaste (140g)

Eco-products No.241

Commodity / Outdoor Goods / Housing Kit

Bathroom

Resource / energy-saving conscious unit bathroom equipment

TOSTEM CORPORATION

1-1, Ojima 2-chome, Koto-ku, Tokyo, 136-8535 Japan

Tel; 81-3-3638-8187 Fax; 81-3-3638-8352

E-mail;

URL; <http://www.tostem.co.jp>

Category:

- A1. Global Warming
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

This product contributes to water and energy saving; the bathroom saves 90 liters of water (approximately 20%) when its bathtub is full in contrast to conventional products, while providing same level of comfortable bathing time as a result of tests and studies based on human engineering. In addition, the product employs a wall panel which sandwiches insulating material and an insulating window, which realizes excellent thermal insulating effect, thus contributing to energy saving and comfort improvement. The product is selected as one of the products with our own "Type [2] Eco-Label", based on our internal standard.



Eco-products No.242

Commodity / Outdoor Goods / Housing Kit

Daily household articles, kitchenware, tableware and bath articles

Environmental-friendly dishes designed for out-door leisure, Eco O

ENTEC Co., Ltd

375-1 Oseki, Tubame-si, Niigata, 959-1287 Japan

Tel; 81-256-63-3515 Fax; 81-256-64-4530

E-mail; info@k-entec.co.jp

URL; <http://www.k-entec.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- A4. Waste
- A5. Resource Consumption
- B3. Resource Saving

Raw materials used for the dish are plants such as corns and potatoes, thereby efficiently reducing global warming influence. Also, the dish needs as low as approximately 4,000 calories when incinerated, causing no contamination of the aright dish is biodegradable, being resolved by natural microorganism under the soil.



Products/Model :

Eco One Spoon, fork, and glass

Eco-products No.243

Commodity / Outdoor Goods / Housing Kit

Daily household articles, kitchenware, tableware and bath articles

Natural Fragrance "HIBANOMORI"

Hiba Development Co., Ltd

76-2, Oma, Oma, Aomori, 039-4601 Japan

Tel; 81-175-37-4711 Fax; 81-175-32-1011

E-mail; hiba@jomon.ne.jp

URL; <http://www.aomori-hiba.com/>

Category:

- A4. Waste
- B1. Recyclability
- B6. Environmental Purification
- C1. Materials Extraction
- C5. Product Use, Maintenance and Repair

Aomori HIBA is one of the three beautiful forests in Japan. When Aomori HIBA wood is sawed at the saw-mill, a large amount of sawdust is yielded as the waste. The sawdust thus obtained is the material of the natural fragrance "HIBANOMORI". Before packing the sawdust into bags, it is sieved to grains of desirable size and a small amount of the essence that was separately extracted from the saw-dust is added.

If you place a pack of "HIBANOMORI" in the warm water pool of your bathtub, the flavour that spreads throughout the bathroom will calm you. Moreover, the flavour will suppress the breeding of various germs in the bathroom. If you place a pack in your wardrobe, your clothes will be kept to be clean by the sterilizing power of "HIBANOMORI".



Products/Model :
2*5P ¥1,575-

Eco-products No.244

Commodity / Outdoor Goods / Housing Kit

Daily household articles, kitchenware, tableware and bath articles

Cooking sheet: Reduces a waste.

Unicharm Corporation

Keikyū 2nd Building, 25-23 Takanawa 3-chome, Minato-ku, Tokyo,

108-8575 Japan

Tel; 81-3-3449-3571 Fax; 81-3-3448-9335

E-mail;

URL; <http://www.unicharm.co.jp>

Category:

- A4. Waste
- B4. Higher Quality
- C5. Product Use, Maintenance and Repair

This cooking sheet is the first sheet which take in only extra water of vegetables, and protect the freshness. When you store vegetables with a bag, you spread a sheet under vegetables and absorb only unnecessary water appearing from vegetables and protect vegetables from breeding of bacteria and drying to keep a bag to the moderate humidity. When you save vegetables in a refrigerator (6°C), mold occurs only in the case of a save bag two weeks later, but when you use this sheet with a save bag, outside leaf changed color a little after two weeks. You can eat it that the inside was edible enough if you take one piece of outside. In this way it seems to be eaten the vegetables which have been disposed of conventionally by keeping it long the freshness of vegetables and reduces a waste.



Products/Model :
Cook Up

Eco-products No.245

Commodity / Outdoor Goods / Housing Kit

Disposing dag for wasteoil

Katazukepoi, using a tip and end of toilet paper

Hattori paper co., ltd

171-1 Yamadai, Kinsei-cho Shikokutyuo-shi, Ehime, 799-0112 Japan

Tel; 81-896-58-3005 Fax; 81-896-58-3306

E-mail; hattori@genki.ne.jp

URL; <http://www.hattoripaper.co.jp>

Category:

- B6. Environmental Purification

The bag of disposer is the bag for putting into waste oil and the remains of soup by using regenerated toilet paper. We put a tip and the end of regenerated toilet paper in a bag made in recycled paper, which is processed by laminate. We can dump the bag putting waste oil and the remains of soup into as combustibles. If so, the drainage and kitchen in the house will be polluted. No draining the waste oil that is the worst to enviroment in the house drainage is the shortest way to keep to beautiful lake and river. As recycled toilet paper apply processing a rugged way to paper because a layer of air of paper extend, the absorbency of waste oil to paper is better. So if you use this bag for putting into all dirty things in the kitchen, not only waste oil, it will be beautiful sea.



Products/Model :

Katazukepoi

Eco-products No.246

Commodity / Outdoor Goods / Housing Kit

Sanitary pottery, including accessories

Closet stool featuring water, energy, and power savings

TOTO Ltd

I-I, Nakashima 2-chome, Kokurakita-ku, Kitakyushu-City, Fukuoka,

802-8601 Japan

Tel; 81-83-951-2707 Fax; 81-83-922-6789

E-mail;

URL; <http://www.toto.co.jp>

Category:

- A1. Global Warming
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

This closet stool features "Tornado Cleaning", which cleans the entire stool with jet water from a nozzle at the back of the stool. While high washing function is maintained, it achieves water savings of up to 54%. In addition, power use to heat the water to wash the hips is reduced to half that needed for existing technology thanks to the "Wonder Wave Cleaning" function which repeats strong and weak spouting more than 70 times a minute. It is an energy-saving design which features a ceramic heater with high-heat-efficiency for a flash water heater that warms water only when needed. In addition, with other energy-saving functions, the electricity cost is more than halved compared with the existing products.



Products/Model :

Neorest SD

Eco-products No.247

Commodity / Outdoor Goods / Housing Kit

Sanitary pottery, including accessories

SATIS: lavatory stool featuring water and electrical energy saving.

INAX Corporation

5-1, Koiehonmachi, Tokoname, Aichi, 479-8585 Japan

Tel; Fax;

E-mail;

URL; <http://www.inax.co.jp/>

Category:

- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C4. Product Manufactures
- C5. Product Use, Maintenance and Repair

This stool features compact size and energy consumption reduction by 21% and CO₂ emission reduction by 24% compared to existing products. This stool can save water 8 liters for cleaning solid waste and 6 liters for liquid waste (4.5 liters for men's liquid waste) are available, thereby realizing about 53% water-saving and about 46% electrical energy-saving compared to existing products through the super energy-saving mode. Additionally, use of detergent is reduced by 72% at cleaning a toilet by pro-guard which features easier cleaning on the toilet surface. The way to hold on the toilet with welding is changed to screw method, so that it is easier to disassemble after discard. The stool is easier to be recycled because of the marking of plastic materials.



Products/Model :

SATIS, GBC-901S/BW1, DV-218-R/BW1 etc

Eco-products No.248

Commodity / Outdoor Goods / Housing Kit

Sanitary pottery, including accessories

e-Modern: Faucet designed with water saving in mind

INAX Corporation

5-1, Koiehonmachi, Tokoname, Aichi, 479-8585 Japan

Tel; Fax;

E-mail;

URL; <http://www.inax.co.jp/>

Category:

- B3. Resource Saving
- B4. Higher Quality
- C6. End-of-Life

This faucet is equipped with "Eco Dial", which has newly developed water saving function to prevent water from running freely. All you have to do is to choose "eco mode" of "Eco Dial", and you can save water up to 50%.



Products/Model :

LF-E340SC/SE etc

Eco-products No.249

Commodity / Outdoor Goods / Housing Kit

Sanitary pottery, including accessories

Sensor Equipped Stall Urinal featuring water and energy saving

INAX Corporation

5-1, Koiehonmachi, Tokoname, Aichi, 479-8585 Japan

Tel; Fax;

E-mail;

URL; <http://www.inax.co.jp/>

Category:

- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

This Sensor Equipped Stall Urinal includes the power generation function that effectively converts spouting power into electrical energy. Accordingly, this urinal using 1 to 2 liters of water depending of the condition of use results in the effect about 70% water-saving compared to existing products.



Products/Model :

Sensor Equipped Stall Urinal, AWU-506RAMP/BN8

Eco-products No.250

Commodity / Outdoor Goods / Housing Kit

Sanitary pottery, including accessories

Automage: Automatic faucet considering water and energy saving

INAX Corporation

5-1, Koiehonmachi, Tokoname, Aichi, 479-8585 Japan

Tel; Fax;

E-mail;

URL; <http://www.inax.co.jp/>

Category:

- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

This automatic faucet includes the self-power generation function that converts effectively spouting power into electrical energy, thereby operating with the energy from this self-power generation. Additionally, because of structure of tiny mist spouting, splashing of water around the faucet is less and you can wash your hands well with less water.



Products/Model :

Automatic faucet, AM-91K etc

Eco-products No.251

Commodity / Outdoor Goods / Housing Kit

Extruded aluminum products

SLIM ART: window-eaves with louvers

TOSTEM CORPORATION

2-1-1 Oojima Koutoku Tokyoto 136-8535 Japan

Tel; 81-3-3638-8187 Fax; 81-3-3638-8352

E-mail; shizumurat1@exc.tostem.co.jp

URL;

Category:

- A5. Resource Consumption
- B5. Energy Saving

SLIM ART window-eaves of 300mm or 500mm wide have each louver attached to them. In summer, the louver intercepts the sunlight and depresses the increase of room temperature, while in winter; it can take in the sunlight into the room. Thereby, SLIM ART contributes to the energy-saving of lightning and heating. The simple design of SLIM ART becomes one-point accessory of the window. SLIM ART aims to save the resource by making the product slim without losing the strength necessary for the product.



Eco-products No.252

Commodity / Outdoor Goods / Housing Kit

Metal sanitary ware

Water-saving shower head attachment

TOTO Ltd

I-I, Nakashima 2-chome, Kokurakita-ku, Kitakyushu-City, Fukuoka,

802-8601 Japan

Tel; 81-83-951-2707 Fax; 81-83-922-6789

E-mail;

URL; <http://www.toto.co.jp>

Category:

- A1. Global Warming
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

This shower allows you to start and stop the water flow by simply pushing the shower head button. This avoids continuous running of water while you are washing your hair etc, resulting in significant savings in water and gas. In addition, since a thermostatic faucet automatically adjusts the water temperature, it avoids the waste of water while you are waiting for the temperature to adjust.



Products/Model :
TMF40WQS

Eco-products No.253

Commodity / Outdoor Goods / Housing Kit

Metal sanitary ware

water and electricity saving automatic faucet

TOTO Ltd

I-I, Nakashima 2-chome, Kokurakita-ku, Kitakyushu-City, Fukuoka,
802-8601 Japan

Tel; 81-83-951-2707 Fax; 81-83-922-6789

E-mail;

URL; <http://www.toto.co.jp>

Category:

- A1. Global Warming
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

The automatic faucet is economical because it saves water thanks to its automatic spout and stop sensor. Installing hydroelectric power units within the faucet enables water energy to be used effectively and the mechanism saves electricity. In addition, an automatic faucet can be installed without electrical work.



Products/Model :

TEL71AX

Eco-products No.254

Commodity / Outdoor Goods / Housing Kit

Gas ovens

Energy-saving residential-use gas cooking stove "exe+S"

Tokyo Gas Co., Ltd

1-5-20 Kaigan, Minato, Tokyo, 105-8527 Japan

Tel; 81-3-5400-7671 Fax; 81-3-3432-5509

E-mail; ichiro@tokyo-gas.co.jp

URL; <http://www.tokyo-gas.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving

Our company has long been working to expand the assortment of residential-use gas cooking stoves installed with high-efficiency burners. This product features burners that greatly increase the thermal efficiency by lessening the flame over-flow from the bottom of pots and pans. It attains a high total thermal efficiency of 55.6%. As such, it acts to conserve energy and reduce CO₂ emissions. It also has a top made of glass for easy cleaning. Furthermore, for increased safety, all three burners are equipped with sensors to prevent over-heating, and the two front burners, with sensors to detect the absence of pots and pans on the burners and prevent lighting in that case. For higher levels of convenience, there is also a function for voice notification to confirm settings and notify users of misoperation.



Products/Model :

HR-P873-VXABHL(R)

Eco-products No.255

Commodity / Outdoor Goods / Housing Kit

Gas ovens

Energy-saving residential-use gas cooking stove "STYLISH"

Tokyo Gas Co., Ltd

1-5-20 Kaigan, Minato, Tokyo, 105-8527 Japan

Tel; 81-3-5400-7671 Fax; 81-3-3432-5509

E-mail; ichiro@tokyo-gas.co.jp

URL; <http://www.tokyo-gas.co.jp/>

Category:

- A1. Global Warming
- A2. Air Pollution
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving

Our company has long been working to expand the assortment of residential-use gas cooking stoves installed with high-efficiency burners. This product features internal-multiple-flameport burners that greatly increase the thermal efficiency by directing flames inward to lessen the flame over-flow from the bottom of pots and pans. It attains a high total thermal efficiency of 55.6%. As such, it acts to conserve energy and reduce CO₂ emissions. Improvements were hardly confined to the burners; the broiler, too, has a higher thermal efficiency as compared to former models, thanks to a change in the inner coating. In addition, the top is made of glass and easy to clean. Furthermore, for increased safety, burners are automatically extinguished when seismic tremors above a prescribed intensity are detected. For higher levels of convenience, there is also a function for voice notification to confirm settings and notify users of misoperation.



Products/Model :

RN-P873-DXHBHL(R)

Eco-products No.256

Commodity / Outdoor Goods / Housing Kit

Gas ovens

Energy-saving residential-use gas cooking stove "HR Glass Top"

Tokyo Gas Co., Ltd

1-5-20 Kaigan, Minato, Tokyo, 105-8527 Japan

Tel; 81-3-5400-7671 Fax; 81-3-3432-5509

E-mail; ichiro@tokyo-gas.co.jp

URL; <http://www.tokyo-gas.co.jp/>

Category:

- A1. Global Warming
- A2. Air Pollution
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving

Our company has long been working to expand the assortment of residential-use gas cooking stoves installed with high-efficiency burners. This product features burners that greatly increase the thermal efficiency by lessening the flame over-flow from the bottom of pots and pans. It attains a high total thermal efficiency of 55.6%. As such, it acts to conserve energy and reduce CO₂ emissions. It also has various features for easy cleaning, including a top made of glass, a burner structure sealed with heat-resistant packing to prevent the infiltration of grime into the range, and coverage of the broiler mesh with grime-resistant fluoroc ceramic film.



Products/Model :

HR-P873A-XEBHL(R)

Eco-products No.257

Commodity / Outdoor Goods / Housing Kit

Gas ovens

Energy-saving residential-use gas cooking stove "Bonheur"

Tokyo Gas Co., Ltd

1-5-20 Kaigan, Minato, Tokyo, 105-8527 Japan

Tel; 81-3-5400-7671 Fax; 81-3-3432-5509

E-mail; ichiro@tokyo-gas.co.jp

URL; <http://www.tokyo-gas.co.jp/>

Category:

- A1. Global Warming
- A2. Air Pollution
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving

Our company has long been working to expand the assortment of residential-use gas cooking stoves installed with high-efficiency burners. This product features internal-multiple-flameport burners that greatly increase the thermal efficiency by directing flames inward to lessen the flame over-flow from the bottom of pots and pans. It attains a high total thermal efficiency of 55.6%. As such, it acts to conserve energy and reduce CO₂ emissions. In addition, the top is made of glass and easy to clean. In design, steps were taken to match the preferences of various customers by offering a choice of three soft colors and using a lot of curved lines.



Products/Model :
RN-PC863-XIHR

Eco-products No.258

Commodity / Outdoor Goods / Housing Kit

Gas ovens

Energy-saving residential-use gas cooking stove "Safull"

Tokyo Gas Co., Ltd

1-5-20 Kaigan, Minato, Tokyo, 105-8527 Japan

Tel; 81-3-5400-7671 Fax; 81-3-3432-5509

E-mail; ichiro@tokyo-gas.co.jp

URL; <http://www.tokyo-gas.co.jp/>

Category:

- A1. Global Warming
- A2. Air Pollution
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving

Our company has long been working to expand the assortment of residential-use gas cooking stoves installed with high-efficiency burners. This product features internal-multiple-flameport burners that greatly increase the thermal efficiency by directing flames inward to lessen the flame over-flow from the bottom of pots and pans. It attains a high total thermal efficiency of 55.6%. As such, it acts to conserve energy and reduce CO₂ emissions. In addition, the top is made of glass and easy to clean. Furthermore, for increased safety, all two burners are equipped with a timer to address neglect to extinguish burners, a device to prevent flame failure, and a function for lowering the flame and automatically extinguishing when the pot or pan is removed from the burners. To facilitate use even by the aged, the control panel has large buttons and letters, color-based differentiation, and other elements deriving from universal design.



Products/Model :
RN-PS862-XHL(R)

Eco-products No.259

Commodity / Outdoor Goods / Housing Kit

Gas water boilers

Household energy-saving latent heat recovery-type heater

Tokyo Gas Co., Ltd

1-5-20 Kaigan, Minato, Tokyo, 105-8527 Japan

Tel; 81-3-5400-7671 Fax; 81-3-3432-5509

E-mail; ichiro@tokyo-gas.co.jp

URL; <http://www.tokyo-gas.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving

Our company has developed a high-efficiency water heater system that recovers previously wasted latent heat contained in the exhaust's water vapor. With this system, water heating efficiency is improved from about 80% (at most) to about 95%, and the efficiency of a unit used for room heating is also increased from about 80% to about 89%. This system contributes to energy savings and to the reduction of CO₂ emissions by cutting gas consumption by (up to) about 13%.



Products/Model :

TP-S824RFA-RA

Eco-products No.260

Commodity / Outdoor Goods / Housing Kit

Gas and oil appliances

Fuel cell co-generation system for residential use

Tokyo Gas Co., Ltd

1-5-20 Kaigan, Minato, Tokyo, 105-8527 Japan

Tel; 81-3-5400-7671 Fax; 81-3-3432-5509

E-mail; ichiro@tokyo-gas.co.jp

URL; <http://www.tokyo-gas.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving

Our company has developed residential co-generation system based on Polymer Electrolyte Fuel Cells (PEFC). Jointly developed with Ebara Ballard Corporation is fueled by hydrogen extracted from city gas to supply electricity and hot water. Compared with conventional thermal power plant and hot water boiler, these systems contribute to energy savings by up to 26% and to the reduction of CO₂ emissions by up to 40% with its high efficiency. (Electrical efficiency: 31%, Heat recovery efficiency: 40% in high heat value (HHV))



Eco-products No.261

Commodity / Outdoor Goods / Housing Kit

Gas and oil appliances

Fuel cell co-generation system for residential use

Tokyo Gas Co., Ltd

1-5-20 Kaigan, Minato, Tokyo, 105-8527 Japan

Tel; 81-3-5400-7671 Fax; 81-3-3432-5509

E-mail; ichiro@tokyo-gas.co.jp

URL; <http://www.tokyo-gas.co.jp/>

Category:

- A1. Global Warming
- A2. Air Pollution
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving

Our company has developed residential co-generation system based on Polymer Electrolyte Fuel Cells (PEFC). Jointly developed with Matsushita Electric Industrial Co., Ltd., is fueled by hydrogen extracted from city gas to supply electricity and hot water. Compared with conventional thermal power plant and hot water boiler, these systems contribute to energy savings by up to 26% and to the reduction of CO₂ emissions by up to 40% with its high efficiency. (Electrical efficiency: 31%, Heat recovery efficiency: 40% in high heat value (HHV))



Eco-products No.262

Commodity / Outdoor Goods / Housing Kit

Gas and oil appliances

Prior Eco-Jozu: highly efficient central heating boiler.

Osaka Gas Co., Ltd.

4-1-2, Hiranomachi, Chuo-ku, Osaka, 541-0046 Japan

Tel; 81-6-6205-4605 Fax; 81-6-6202-1040

E-mail;

URL; <http://www.osakagas.co.jp>

Category:

- A1. Global Warming
- B5. Energy Saving

Employing a heat exchanger of latent heat recovery type, the system reutilizes the heat of combustion gas which used to be wasted. Achieving high heat efficiency of 95% in hot water supply (compared with 80% by conventional type) and 89% in space heating (compared with 80% by conventional type), it is such an energy-saving product. With smaller energy consumption, Eco-Jozu has reduced annual CO₂ emission by 224 kg.



Products/Model :

SOPHORON Dishwasher Biodetergent

Eco-products No.263

Commodity / Outdoor Goods / Housing Kit

Gas and oil appliances

EcoWill - energy-saving gas cogeneration system

Osaka Gas Co., Ltd.

4-1-2, Hiranomachi, Chuo-ku, Osaka, 541-0046 Japan

Tel; 81-6-6205-4605 Fax; 81-6-6202-1040

E-mail;

URL; <http://www.osakagas.co.jp>

Category:

- A1. Global Warming
- B5. Energy Saving
-
-
-

EcoWill is an energy-saving gas cogeneration system which generates power with clean natural gas and the exhaust heat from power generation provides hot water supply and space heating. EcoWill has been successful in reducing the primary energy consumption by 20% and CO₂ emission by 30% as it utilizes the exhaust heat from power generation for hot water supply and space heating. The system supports the comfortable living while contributing to the environmental conservation.



Eco-products No.264

Commodity / Outdoor Goods / Housing Kit

Aluminum sashes for housing

Duo PG: Aluminium sash with the improved heat insulation

TOSTEM CORPORATION

2-1-1 Oojima Koutoku Tokyo 136-8535 Japan

Tel; 81-3-3638-8187 Fax; 81-3-3638-8352

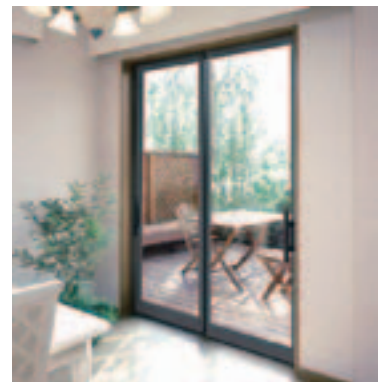
E-mail; shizumurat1@exc.tostem.co.jp

URL;

Category:

- A1. Global Warming
- A3. Hazardous Substances
- A4. Waste
- B1. Recyclability
- B4. Higher Quality

Duo PG sash adopts a double-layer type glass window; the thickness of air layer between the two glass plates was widened to twice of that of the ordinal product. The increase in the thickness of air layer contributes to the improvement of heat insulation. The material of the angle part that contacts directly to the interior material was also changed to plastic; this contributes to suppress the condensation of dew and thereby to lengthen the life of house. Moreover, the structure of the plastic part was designed so as to separate it easily from the sash, so the recycle of the material is easy when Duo PG is dismantled owing to the end of its use.



Eco-products No.265

Commodity / Outdoor Goods / Housing Kit

Metal sashes and doors

AVANTOS: front door designed to fit for the idea of ECO-material

TOSTEM CORPORATION

2-1-1 Oojima Koutouku Tokyoto 136-8535 Japan

Tel; 81-3-3638-8187 Fax; 81-3-3638-8352

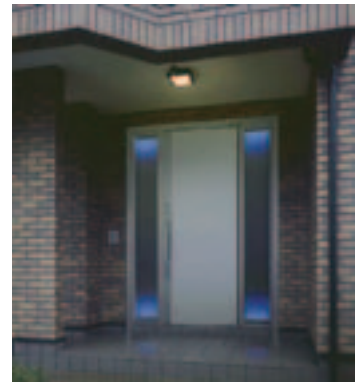
E-mail; shizumurat1@exc.tostem.co.jp

URL;

Category:

- A3. Hazardous Substances
- A5. Resource Consumption
- B1. Recyclability
- B4. Higher Quality

AVANTOS is basically the so-called "flash door" comprising one frame and two boards, but it is modified with the heat insulating material. The material used is the form of polyurethane or polystyrene and the form doesn't contain Freon gas (designated species of chlorofluorocarbons and their substitutes). The flame window, if installed, is a double-layer type glass window with an air-layer of 19mm in thickness. Our factory makes the efficient use of resources; for instance, the scraps of hard-type vinyl chloride resin that generated in the factory are reused as the core material of the front door product.



Eco-products No.266

Commodity / Outdoor Goods / Housing Kit

Thermal insulating window

Aluminum composite insulating window; energy-saving, fire-proof

TOSTEM CORPORATION

1-1, Ojima 2-chome, Koto-ku, Tokyo, 136-8535 Japan

Tel; 81-3-3638-8187 Fax; 81-3-3638-8352

E-mail;

URL; <http://www.tostem.co.jp>

Category:

- B1. Recyclability
- B2. Longevity
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

The product is a composite structure insulating window frame, which uses aluminum material (with durability and fireproof functions) for outside and resin material (with thermal insulation and ornamental design functions) for inside. The product contributes to energy saving by reducing air-conditioner's load at a residential house with a help of double glazed glass. When saved amount of energy is converted into carbonic acid gas, a high-insulation/airproof house using Symphony can reduce carbonic acid gas by approximately 960kg a year per house in contrast to a conventional house. Thanks to these effects, increased carbonic acid gas by increased materials of the product (such as for sash, glass, and thermal insulation) can be offset within approximately 1.6 years, thus showing enough efficiency in terms of LCA standard. Furthermore, to improve its recyclability, the product has a simple disassemble structure where aluminum/resin materials are fixed with our own "Type [2] Eco-Label", based on our internal standard.



Eco-products No.267

Commodity / Outdoor Goods / Housing Kit

Elevators

Environmentally-friendly elevator without machine room

Mitsubishi Electric Corporation

2-2-3 Marunouchi, Chiyoda-ku, Tokyo, 100-8310 Japan
(after 07/Nov./2005 it will be changed to 2-7-3)

Tel; +81-3-3218-9024 Fax; +81-3-3218-2465

E-mail; eqd.eco@hq.melco.co.jp (eqd.eco@pj.MitsubishiElectric.co.jp (after 7/Nov./2005))

URL; <http://www.MitsubishiElectric.co.jp/corporate/eco/index.html>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- A5. Resource Consumption
- B3. Resource Saving
- B4. Higher Quality

The "AXIEZ" elevator does not require a machine room, allowing rooms needed for existing elevators to be removed. The control panel and traction motor, which were previously installed in a machine room, have been downsized and can be installed in the space between the shaft wall and the elevator car. It has been downsized by 28% and uses 60% less power compared with our previous products (at 1983). AXIEZ also reduces environmentally toxic substances by reducing the use of vinyl chloride (PVC) and by using water based paint which does not contain VOCs.



Products/Model :

Mashine-Room-Free Elevator "AXIEZ"

Eco-products No.268

Commodity / Outdoor Goods / Housing Kit

Parts, attachments and accessories of office

SALUSER, New Type of Water Purifier Attached to the Main Tap

HANITSU TRADE Co., Ltd.

Morikawa Bldg. 2F, 1-30-6, Nishigotanda, Shinagawa-ku, Tokyo,
141-0031 Japan

Tel; 81-3-5437-6721 Fax; 81-3-5437-6722

E-mail;

URL;

Category:

- A3. Hazardous Substances
- B2. Longevity
- B4. Higher Quality
- B5. Energy Saving
- B6. Environmental Purification

SALUSER's cartridge, utilizing activated carbon and special ceramics extracted from natural ores, removes bacteria, red rust, residual chlorine, and even carcinogenic trihalomethanes from tap water. The purified water is safe, free of chlorine smell, and good-tasting. SALUSER also creates clean and safe home water environment by suppressing the propagation of bacteria and slime on the water system surfaces. SALUSER can also prevent scales on the water pipe or the water heater, and extend the life of such equipment. As it is attached to the main water pipe, SALUSER provides safe, healthy and tasty water not just to your kitchen tap but also to all other water systems in your house including bathroom and toilet.



Products/Model :

Water Purifier SALUSER SR2H1

Eco-products No.269

Commodity / Outdoor Goods / Housing Kit

Miniature generators

Environmentally-friendly Photovoltaic modules

Mitsubishi Electric Corporation

2-2-3 Marunouchi, Chiyoda-ku, Tokyo, 100-8310 Japan
(after 07/Nov./2005 it will be changed to 2-7-3)

Tel; +81-3-3218-9024 Fax; +81-3-3218-2465

E-mail; eqd.eco@hq.melco.co.jp (eqd.eco@pj.MitsubishiElectric.co.jp (after 7/Nov./2005))

URL; <http://www.MitsubishiElectric.co.jp/corporate/eco/index.html>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

We have started mass production of photovoltaic modules "MR series" with lead-free solder ahead of our industry competitors. Approximately 864g of lead solder is used per house for a conventional photovoltaic module^(*1). Our module does not include any lead in the solder^(*2). This product not only reduces possible environmental impact but also improves conversion efficiency as the basic function of photovoltaic battery.

*1: Per house (for 3kW system): assuming 24 modules.

*2: Quantity of lead required for soldering joints.



Products/Model :

Photovoltaic module "MR series"

Eco-products No.270

Commodity / Outdoor Goods / Housing Kit

Miniature generators

Environmentally-friendly Photovoltaic Power System

Mitsubishi Electric Corporation

2-2-3 Marunouchi, Chiyoda-ku, Tokyo, 100-8310 Japan
(after 07/Nov./2005 it will be changed to 2-7-3)

Tel; +81-3-3218-9024 Fax; +81-3-3218-2465

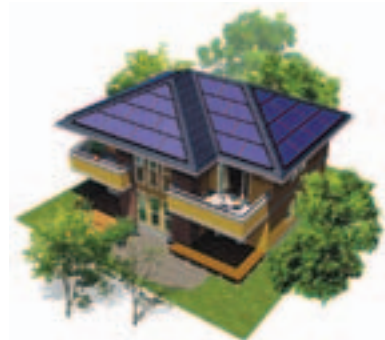
E-mail; eqd.eco@hq.melco.co.jp (eqd.eco@pj.MitsubishiElectric.co.jp (after 7/Nov./2005))

URL; <http://www.MitsubishiElectric.co.jp/corporate/eco/index.html>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B6. Environmental Purification
- B5. Energy Saving

1. By combining five types of module shapes, rooftop installations can handle more cells.
2. With 94.5% energy conversion efficiency, can make use of power generated without waste.
3. Completely lead-free connections, including conducting wires and electrode covers.



Products/Model :

Photovoltaic battery system "MBM series"

Eco-products No.271

Commodity / Outdoor Goods / Housing Kit

kitchen ware

Dishwasher: money-saving and water saving

TOTO Ltd

I-I, Nakashima 2-chome, Kokurakita-ku, Kitakyushu-City, Fukuoka,
802-8601 Japan

Tel; 81-83-951-2707 Fax; 81-83-922-6789

E-mail;

URL; <http://www.toto.co.jp>

Category:

- A1. Global Warming
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

This dishwasher achieves a high-repressure jet with the minimum of water by reducing the nozzle size and installing a rolling ball. As a result, it provides saving in both water and gas, equivalent to 810 bathtubs of water a year and 94,000yen a year in cost reduction, compared with handwashing.



Products/Model :
EUD510

Eco-products No.272

Commodity / Outdoor Goods / Housing Kit

Household electric appliances

Eco-friendly water heater for residential use

Tokyo Electric Power Company

1-1-3 Uchisaiwai-cho Chiyoda-ku, Tokyo, 100-8560 Japan

Tel; 81-3-4216-1111 Fax; 81-3-4216-3479

E-mail; kawashima.toshiyuki@tepco.co.jp

URL; <http://www.tepco.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Eco Cute is a household water heater that offers dramatic energy savings on the use of hot water, which normally accounts for about a third of a household's entire energy consumption. It generates hot water using atmospheric heat by means of a heat pump system and offers energy savings of around 30% compared with a conventional combustion type water heater together with a reduction in green house gas emission. The use of natural refrigerant CO₂ contributes to environmental conservation including the prevention of global warming.



Products/Model :
CO₂ refrigerant heat pump water heater

Eco-products No.273

Commodity / Outdoor Goods / Housing Kit

Cleaning tools

Electrolytic kitchen cleaner with alkaline ionized water of soda

Hattori paper co., ltd

171-1 Yamadai, Kinsei-cho Shikokutyuo-shi, Ehime, 799-0112 Japan

Tel; 81-896-58-3005 Fax; 81-896-58-3306

E-mail; hattori@genki.ne.jp

URL; <http://www.hattoripaper.co.jp>

Category:

● C5. Product Use, Maintenance and Repair

Electrolytic kitchen cleaner is a wet tissue type of cleaner with alkaline ionized water with bicarbonate that has been used for cleaning since a long time ago contained in an unwoven fabric made for pulp mainly. It is a washing cleaner that is a gentle to skin and environment. The grime is removed by the power of carbonate ions and bicarbonate. You are worry free use in any places, in the refrigerator and oven. And you don't need to clean twice for not being sticky.



Eco-products No.274

Commodity / Outdoor Goods / Housing Kit

Cleaning tools

Spray type house cleaner of alkaline ionized water of bicarbonate

Hattori paper co., ltd

171-1 Yamadai, Kinsei-cho Shikokutyuo-shi, Ehime, 799-0112 Japan

Tel; 81-896-58-3005 Fax; 81-896-58-3306

E-mail; hattori@genki.ne.jp

URL; <http://www.hattoripaper.co.jp>

Category:

● C5. Product Use, Maintenance and Repair

House cleaner is a spray type of cleaner with bicarbonate that has been used for cleaning since a long time ago contained in an unwoven fabric made for pulp mainly. It is a washing liquid that is gentle to skin and environment. The grime is removed by the power of carbonate ions and bicarbonate. When you wipe a floor and floorings by it, you don't feel to be sticky, and need to no wiping twice. Then the family of having babies or pets can reliefly use it because bicarbonate is a kind of food additives.



Eco-products No.275

Commodity / Outdoor Goods / Housing Kit

Manufacturing products, n.e.c.

Water saving and power saving tankless toilet 'eshell SEO'

Matsushita Electric Works, Ltd.

1048 Kadoma, Kadoma City, Osaka, 571-8686 Japan

Tel; 81-6-6908-4896 Fax; 81-6-6908-7193

E-mail;

URL; <http://www.mew.co.jp>

Category:

- A5. Resource Consumption
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

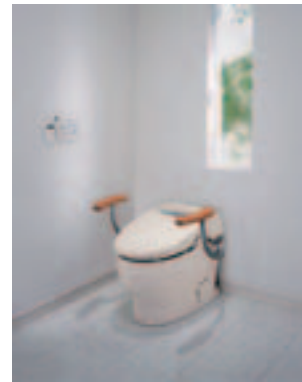
Water-saving toilet system + Power-saving hygiene toilet seat = No.1 eco toilet

[Water-saving]

Adopted our unique "turn-trap flushing" system where the trap pipe rotates upside down. Since this flushing system uses gravity, the required amount of water is less than half that of 10 years ago (13L → 6L for high flush and 4.5L for low flush). The water-saving performance is No.1 among tankless toilets in Japan.

[Power-saving]

While the conventional hygiene toilet seat system stores hot water in a tank, our new system instantly heats water only when needed by routing water through a high-efficiency ceramic heater surface. Therefore, it does not need electric power to keep water hot. In addition, when no one is on the seat, the seat warming temperature is automatically lowered to save power. Furthermore, the timer function to stop seat warming for 5 or 10 hours is ideal for saving power when you're out or asleep.



Products/Model :

Toilet seat: CH722APF, Toilet: CH453MPF

Eco-products No.276

Commodity / Outdoor Goods / Housing Kit

Photovoltaic Module

Residential solar power generation system

Kyocera Corporation

6, Takeda Tobadono-cho, Fushimi-ku, Kyoto, 612-8501 Japan

Tel; 81-75-604-3500 Fax; 81-75-604-3501

E-mail; webmaster@kyocera.co.jp

URL; <http://kyocera.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B3. Resource Saving
- B4. Higher Quality
- C5. Product Use, Maintenance and Repair

Kyocera's newly developed solar power generation system SAMURAI, achieved to effectively use energy while maintaining beauty in the appearance of the residence. A combination of long and short size, compact and lightweight modules, maximize power output according to the roof shape and roof area of each surface. As we know, this product does not damage the Earth's environment and contributes to preserve global environment as it converts solar light energy to electric energy.



Products/Model :

SAMURAI SU60T-02, SU45T-02

Eco-products No.277

Commodity / Outdoor Goods / Housing Kit

Soil Conditioner

Ami Ami, Amina and Amimate (The picture is "Amimate")

FD Green (Thailand) Co., Ltd.

6 Mu 2 Tambol Bangkru Amphur Phrapradaeng Samut prakan
10130 Thailand

Tel; 662-463-4669 Fax; 662-819-2650

E-mail; sombat@bkk.ajinomoto.com

URL;

Category:

- B1. Recyclability
- B3. Resource Saving
- B4. Higher Quality
- B6. Environmental Purification
- B7. Usage of Recycled Materials

These products made from by-products of Ajinomoto Group of Companies in Thailand. As the useful residual nutrients used in production of food products is guarantee of no toxic. We found that, these residue was still able to be nutrient for enhancing the plant growth. Moreover, they are the source of organic nutrients (amino acid) to support bacterial activity for biological improvement of soil. Therefore, it had been developed to be product with proven scientific evidence of no residual impact to soil and environment in long-term application. They are both liquid (Ami Ami) and solid type (Amina and Amimate) selling as organic fertilizer or soil conditioner for agriculturalist in Thailand and also exporting to Japan.



Products/Model :
Amimate

Eco-products No.278

Commodity / Outdoor Goods / Housing Kit

Wooden deck

Out-door artificial-wooden deck; long-term use and resource saving

TOSTEM CORPORATION

1-1, Ojima 2-chome, Koto-ku, Tokyo, 136-8535 Japan

Tel; 81-3-3638-8187 Fax; 81-3-3638-8352

E-mail;

URL; <http://www.tostem.co.jp>

Category:

- A5. Resource Consumption
- B2. Longevity
- B3. Resource Saving
- B7. Usage of Recycled Materials
- C5. Product Use, Maintenance and Repair

The product uses artificial wood produced by compounding wood flour into resin, thus realizing long life with higher weather-proof than conventional natural wood products as well as with less color fading or rotting. Compounded wood flour used for the product is wood waste produced at manufacturing process of various effective exploitation of precious wood materials. The product is selected as one of the products with our own "Type [2] Eco-Label", based on our internal standard.



Eco-products No.279

Building and Civil Engineering

Glued laminated timber

Laminated wood of Aomori HIBA for building material use

Kodate Lumber Inc.

127-20 Sengari Aburakawa Aomori City Aomori Prefecture
038-0059 Japan
Tel; 81-17-788-8125 Fax; 81-17-788-8127
E-mail; kodate-mokuzai@kodate.co.jp
URL; <http://kodate.co.jp/>

Category:

- B2. Longevity
- B3. Resource Saving
- B4. Higher Quality
- B6. Environmental Purification

The development of wood resources has a possibility to destruct the global environment, so it is much interested. In general, it takes 30 years or more for a tree to grow up to the size from which usable wood is cut out, even if the tree is a species that has a large growth rate. As for Aomori HIBA, a long period of 200 to 300 years is necessary to grow. So, the effective use of the limited resource is important, and the most effective method is to use the laminated wood. (HIBA is a kind of Japanese cypress tree and grows in Aomori prefecture in Japan.) Aomori HIBA contains about 1% Aomori HIBA oil, and the oil contains 2% "Hinokitiol". "Hinokitiol" is isopropyl-tropolone (C₁₀H₁₂O₂). It has anti-bacterial and worm-killing powers; therefore, the wood of Aomori HIBA does not easily rot and doesn't allow white ants to come closer to it. We may therefore say that Aomori HIBA is a long life material that can be used without special rot-proof treatment. Because of its long life, Aomori HIBA has been used not only for the foundation and pillars of private house, but also in the structures of shrine and temple.



Eco-products No.280

Building and Civil Engineering

Particle board, Glued laminated timber

Woodchip-board [Artificial soil for re-vegetation]

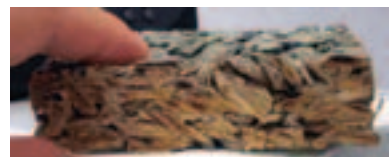
Obayashi Corporation

Shinagawa Intercity Tower B, 2-15-2, Konan, Minato-ku, Tokyo,
108-8502 Japan
Tel; 81-3-5769-1322 Fax; 81-3-5769-1978
E-mail; hamai.kunihiko@obayashi.co.jp
URL; <http://www.obayashi.co.jp/>

Category:

- A1. Global Warming
- A4. Waste
- B1. Recyclability
- B7. Usage of Recycled Materials
- C4. Product Manufactures

This product recycles woodchips from trees that have been cut down and abandoned after land formation. A grout coating ensures that the chips combine firmly, producing a woodchip board with outstanding durability. It has consecutive voids, providing an environment where plants can grow even in severe conditions such as acid soil or concrete walls.



Products/Model :

tip-board (500*500*30mm)

Eco-products No.281

Building and Civil Engineering

Paint

randexcoat eco superior water based inorganic paint

wellwishers inc.

1046-2, tsutsumi, shiroishi-town, kishima-gun, saga, 849-1104 Japan

Tel; 81-942-32-4634 Fax; 81-942-43-6901

E-mail; cynjc743@ybb.ne.jp

URL;

Category:

- A3. Hazardous Substances
- B4. Higher Quality
- B6. Environmental Purification
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

eco superior is the safest and most optimal construction paint created with strong consideration towards people's living working and global environment.

1. perfect solution against sick house syndrome. adsorption and decomposition of voc.
2. keeps in door air fresh and clean. deodorization.
3. comfortable indoor humidity levels always. humidity conditioning.
4. maintains desirable room temperature. minus ion/far-infrared ray effect.
5. mold free environment. breathability/anti mold function.
6. excellent fire protection. nonflammability.
7. long lasting high quality performance. durability.
8. look great for a long time. stain-resistant/non-fading.



Products/Model :
packaging/20kg application amount

Eco-products No.282

Building and Civil Engineering

Fibreboard

Grid core panels Building a Recycling Society can be recycled

Maezawa Industries, Inc.

No.7-2 2-chome, Yaesu, chuo-ku, Tokyo, 104-8531 Japan

Tel; 81-3-3281-5521 Fax; 81-3-3274-4157

E-mail; prir_info@maezawa.co.jp

URL; <http://www.maezawa.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B1. Recyclability
- B7. Usage of Recycled Materials
- C2. Material and Components Production

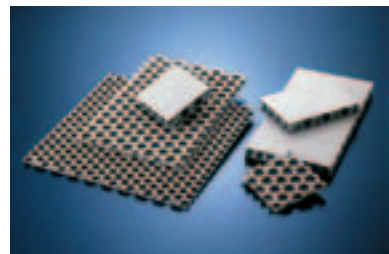
Lightweight but very strong. Grid core panels are made of 100% recycled paper. Grid core panels are friendly to the environment and people, as they generate virtually no formaldehyde.

[features]

Made from 100% recycled paper Use no toxic binders, generate virtually no formaldehyde. Utilizes a unique manufacturing process to produce a honeycomb structure, resulting in a paper panel that is unsurpassed in lightness and strength. Because they can be shaped into curves, these paper panels have unparalleled possibilities for design and shapes.

[Main applications]

Furniture and fixtures for shops, displays and showcases. Packing materials for freight and shipping. Core materials and components for furniture and fixtures. Toys and games. Components for various buildings and structures. Art supplies and do-it-yourself products.



Products/Model :
Grid core panels Building a Recycling society

Eco-products No.283

Building and Civil Engineering

Inorganic chemicals

MUD CLEAN (Soil Stabilizer using the paper sludge ash)

Bestway Inc.

1-37-2, Hashido, Seya-ku, Yokohama, 246-0037 Japan

Tel; +81-45-304-4708 Fax; +81-45-304-4709

E-mail; info@bestway-jp.com

URL; <http://www.bestway-jp.com/>

Category:

- B7. Usage of Recycled Materials
- C5. Product Use, Maintenance and Repair
- A3. Hazardous Substances
- B6. Environmental Purification

"MUD CLEAN" is a soil conditioner and a sludge resolver made of incineration ash of paper sludge. Enhance the bonding force between the soil particles, and expedite granulation. Thereby, forms the high water permeability and high water retention soil, prevent getting loose and eroding the ground surface by rain. Improve various defective soil such as high hydrous soil, contain a stink and toxic substance, etc.. The environmental load is very low because it is composed of mineral ingredients. Therefore, it has no bad effects on any plants and animals. And also we have a type to restore the Heavy Metals pollution.



Products/Model :

Nonhazardous Soil Stabilizer

Eco-products No.284

Building and Civil Engineering

Acryl emulsion

Solvent-free waterproof coating material; My Roofer

MITSUBISHI CHEMICAL FUNCTIONAL PRODUCTS, INC.

8-2, Marunouchi 1-chome, Chiyoda-ku, Tokyo, 100-0005 Japan

Tel; Fax;

E-mail;

URL; <http://www.yes-mks.co.jp>

Category:

- A2. Air Pollution
- A3. Hazardous Substances
- A4. Waste
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

This acryl emulsion waterproof coating material does not contain solvents or hydrocarbon compounds such as thinner, toluene, or xylene. It doesn't use lead, cadmium, chrome or other toxic substances as pigment. It can be painted over an existing waterproof layer, and so reduces industrial waste. In addition, we have introduced returnable resin containers to reduce the number of discarded containers.



Products/Model :

MYROOFER HG, WG, WGR

Eco-products No.285

Building and Civil Engineering

Paint

Building exterior paint invented with energy conservation in mind

Nagashima Special Paint Co., Ltd.

2-1-5-8F Arakawa, Arakawa-ku, Tokyo 116-8552 Japan

Tel; 81-3-5615-5411 Fax; 81-3-5615-5410

E-mail; kinou@nspg.co.jp

URL; <http://www.scpag.co.jp>

Category:

- A1. Global Warming
- B2. Longevity
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Coating with "Miracool" reflects sunlight about 90%, which curb the rise of the temperature at building roof and well. In addition, it drastically reduces heat quantity of transmission owing to its low coefficient of thermal conductivity and high long-wave emissivity. Because of these functions, "Miracool" can contribute to energy conservation by making building's cooling load reduced. Not only for energy conservation of building itself, it can also be helpful for mitigating the heat island phenomenon, an extraordinary high temperature in the urban area as a whole, as it is able to control the absorption of solar energy. We can provide "Miracool way" for asphalt-paved road, other than the one for building.



Products/Model :

Miracool

Eco-products No.286

Building and Civil Engineering

Fabrication of finished plastic products, n.e.c. (piecework)

Non-Freon spray-on thermal insulating material 'Ceramilite-eco'

Obayashi Corporation, Technical Research Institute

640 4-chome,Shimokiyoto,Kiyose-shi, Tokyo, 204-8558 Japan

Tel; 81-424-95-0970 Fax; 81-424-95-0908

E-mail;

URL; <http://www.obayashi.co.jp/>

Category:

- A1. Global Warming
- A4. Waste
- B5. Energy Saving
- B7. Usage of Recycled Materials
- C2. Material and Components Production

In this construction method, We use spray-on thermal insulating material on-site. It does not use Freon-gas, Freon-gas substitute or VOCs which cause 'sickhouse' syndrome. It also contributes to environmental conservation by using recycled products from fractured styrene foam waste as an aggregate for adding adiabaticity. Moreover, because Ceramilite-eco and Ceramilite-ecoG does not cause explosive burning like Polyurethane foam does, it obtained high safety against fire. This method received a prize of Ministry of Land, Infrastructure and Transport Government on the 1st Ecoproducts award 2004.



Products/Model :

Spraying on Ceramilite-Eco

Eco-products No.287

Building and Civil Engineering

Concrete products

Concrete Crab-Panel

Kajima Corporation

3-7-1 Nishi-Sinjuku Sinjuku-Ku Tokyo 163-1029 Japan

Tel; 81-3-5321-7322 Fax; 81-3-5321-7328

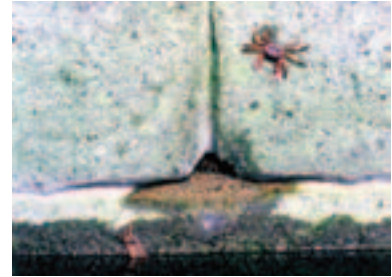
E-mail; sakurano@kajima.com

URL; http://www.kajima.co.jp/tech/env_planning/seitaikai/seitaikai03.html

Category:

- B6. Environmental Purification

Crab-Panel is a concrete panel which capable of creating an abundant of living space and also improving habitat condition for aquatic creatures. Recovering food chain of coastal area: Conventional concrete revetment is unable to provide a sustainable habitat for living creatures (especially crabs which live near water), as a result decreasing of the coastal resources occurred. Crab-Panel is developed to overcome this situation. Worth points This panel is established in front of the existing revetment or retaining wall. Coarse surface of the panel could allow algae grow densely on it. Joint of the panel is a suitable part for crabs to hide and move around. Holes are set on the panel which were allowed the crabs burrow and hibernate during winter. To reduce the light reflection, surface color of the panel is adjusted. Surface color could be adjusted to harmonize the surrounding.



Products/Model :

Crabs on Concrete Crab-Panel

Eco-products No.288

Building and Civil Engineering

Building brick

Recycled non-burned brick

Tokyo Electric Power Environmental Engineering CO. INC.

4-6-14 Shibaura Minato-ku, Tokyo, 108-8537 Japan

Tel; 81-3-3452-4748 Fax; 81-3-3452-4617

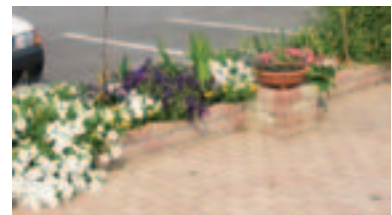
E-mail; eigyou-honbu@mail.tee-kk.co.jp

URL; <http://www.tee-kk.co.jp>

Category:

- A1. Global Warming
- A4. Waste
- B1. Recyclability
- B7. Usage of Recycled Materials
- C4. Product Manufactures

"Earthen Bricks" are non-burned bricks using recycled materials from the by-products and waste products discharged from businesses and local autonomies. Recycled material accounts for over 80% of the total ingredients. Furthermore CO₂ emission is reduced by about 40% with this product, compared with conventional burned bricks thanks to a new technology called "non-burned caking technology", which enables densification and caking with air-drying. This product plays an important part in building a recycling-based society with zero emissions.



Products/Model :

Earthen Bricks/SS, SC

Eco-products No.289

Building and Civil Engineering

Structural clay products

SOIL CERAMICS made of recyclable materials

INAX Corporation

5-1, Koiehonmachi, Tokoname, Aichi, 479-8585 Japan

Tel; Fax;

E-mail;

URL; <http://www.inax.co.jp/>

Category:

- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving
- B6. Environmental Purification
- B7. Usage of Recycled Materials

These are blocks that are made from quarrying abolishment clay and others. These blocks are symbiosis materials which can be recycled and return to the soil after the use. Moreover, more than 50% energy-saving for cement and 80% for ceramics at production are realized because of high-pressure steam curing process with no burning. These blocks contribute to energy-saving and low environmental load.



Products/Model :

SOIL CERAMICS, SOIL-300SB/12E etc

Eco-products No.290

Building and Civil Engineering

Interior tile

ECOCARAT : interior material automatically controls humidity

INAX Corporation

5-1, Koiehonmachi, Tokoname, Aichi, 479-8585 Japan

Tel; Fax;

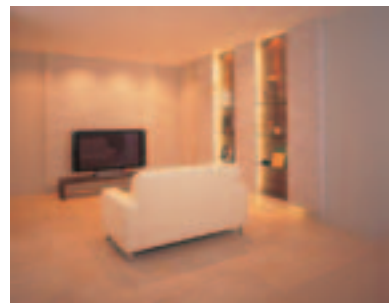
E-mail;

URL; <http://www.inax.co.jp/>

Category:

- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving
- B6. Environmental Purification
- B7. Usage of Recycled Materials

'ECOCARAT' automatically controls humidity of a room where it is used by absorbing moisture in the air when it gets humid and giving off moisture when it gets dry. It also has the function of absorbing VOC that would cause sick house syndrome, providing much better environment for our health. This is the first product approved as the construction material decreasing formaldehyde concentration in the domestic industry. In addition, we have reduced energy consumption and CO₂ emission with the low-temperature firing and recycled glass waste and other waste material.



Products/Model :

ECOCARAT, ECO-275NET/RO1 etc

Eco-products No.291

Building and Civil Engineering

Tile

SANDROCK : Made by porous ceramics

INAX Corporation

5-1, Koiehonmachi, Tokoname, Aichi, 479-8585 Japan

Tel; Fax;

E-mail;

URL; <http://www.inax.co.jp/>

Category:

- B2. Longevity
- B3. Resource Saving
- B7. Usage of Recycled Materials

Made by porous ceramics, high water permeability returns rain water to soil. Avoids underground drought, and lightens the input to the river. Gives soft walking feel and absorbs heat of road surface temperature. Using 92% of recycled materials.



Products/Model :
SANDROCKr permeability

Eco-products No.292

Building and Civil Engineering

Hydrated lime

The safe lime plaster

Tanaka Sekkai-Kogyo co.

3983, Godaisan, Kochi-city, Kochi, 781-8125 Japan

Tel; 81-88-878-0566 Fax; 81-88-884-0289

E-mail; sekkai@tasekkai.co.jp

URL; <http://www.tasekkai.co.jp/>

Category:

- A3. Hazardous Substances
- B2. Longevity
- C4. Product Manufactures
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

The safe plastered wall materials which made only natural materials and those primary processing product as a raw materials. High safety is confirmed. Method of construction is simple, and even amateur construction is possible. Besides, coating stack repair is possible. It does not occur besides carbon dioxide of a fuel origin at the time of production either. Toxic substance-free (Through all products stage). We prepare the Japanese, English and Chinese manual for use.



Products/Model :
Tanaream

Eco-products No.293

Building and Civil Engineering

Steel materials

Waste-soil-free Steel Tube Pile

Sumitomo Metal Industries, Ltd.

1-8-11 Harumi Chuo-ku, Tokyo, 104-6111 Japan

Tel; 81-3-4416-6111 Fax; 81-3-4416-6793

E-mail; chikyu-kan@sumitomometals.co.jp

URL; <http://www.sumitomometals.co.jp>

Category:

- A4. Waste
- B1. Recyclability
- B4. Higher Quality
- C5. Product Use, Maintenance and Repair

Since it penetrates in rotary fashion and generates no surplus excavation soil at all, the Geo Wing Pile is an environmentally-friendly foundation pile. Since it is easily withdrawn in reverse, it may be deployed and redeployed at will. The leading end of the Geo Wing Pile is a closed-off cone and is provided with three wings on the steel tube near the tip whose diameter be freely defined within a range 1.5 to 12.0 times the diameter of the steel tube. Geo Wing Pile much faster than conventional rotary piles when aligning the center of the pile, and the three wings are designed to give improved penetration.



Products/Model :
Geo Wing Pile

Eco-products No.294

Building and Civil Engineering

Steel materials

Pollutant Groundwater Run-off-free Impermeable Pile

Sumitomo Metal Industries, Ltd.

1-8-11 Harumi Chuo-ku, Tokyo, 104-6111 Japan

Tel; 81-3-4416-6111 Fax; 81-3-4416-6793

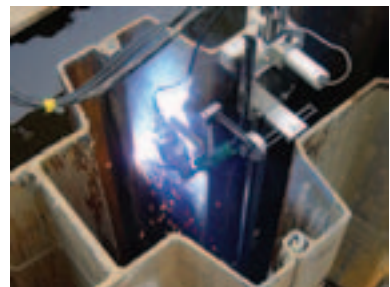
E-mail; chikyu-kan@sumitomometals.co.jp

URL; <http://www.sumitomometals.co.jp>

Category:

- A4. Waste
- B4. Higher Quality
- C5. Product Use, Maintenance and Repair

By welding the splice junction of the SM-J pile with our proprietary steel material, Sumitomo Metals has developed a lateral perfect impermeable method that may be utilized as a vertical wall preventing the runoff of pollutants into groundwater that is seen in offshore and onshore waste disposal facilities and soil pollution. When applied disposal in offshore land fills, double impermeability may be effected by using a box-shaped J pile, draining it out inside and welding the junction, after which it is not only simple to inspect and maintain the impermeability, but the box space may also be used to monitor water quality.



Products/Model :
SM-J Pile

Eco-products No.295

Building and Civil Engineering

Power tools

Cordless Impact Driver

Hitachi Koki Co., Ltd.

15-1, Konan 2-chome, Minato-ku, Tokyo, 108-0075 Japan

Tel; 81-3-5783-0630 Fax; 81-3-5783-0713

E-mail;

URL; <http://www.hitachi-koki.com/powertools/network/japan.html>

Category:

- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving

Ultra-compact body with the strongest tightening torque and speed of its class. Hitachi procures a 30% improvement in tightening speed and a 13% reduction in power consumption thanks to a highly efficient impact mechanism (compared with the conventional model WH12DH). Case less rare-earth magnet motor and replaceable carbon brushes reduce servicing frequency by 1/2 and servicing cost by 1/3. One-touch detachable nickel-metal-hydrate batteries are provided.



Products/Model :
WH12DM2 (REKA)

Eco-products No.296

Building and Civil Engineering

Air conditioners

Heart Pump Water Heater for business use

Hitachi Home & Life Solutions, Inc.

2-15-12 Nishi-Shinbashi, Minato-ku, Tokyo, 105-0003 Japan

Tel; 0120-3121-11 Fax;

E-mail;

URL; <http://www.kandenfan.Hitachi.co.jp> (Japanese only)

Category:

- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Enabling High power and efficient hot-water supply with PAM technology. Enabling High power and saving energy with Hitachi unique PAM¹⁾-control technology. Achieved the highest industry ratings with heating power of 23KW and COP²⁾ rating of 4.6. Compact design integrating the heat pump equipment and small support tank enables space-saving.

1) PAM : Pulse Amplitude Modulation

2) COP : Coefficient of Performance



Products/Model :
RHK-23SG

Eco-products No.297

Building and Civil Engineering

Air conditioners

Eco-friendly multiple air conditioning system and replacing technology

Mitsubishi Electric Corporation

2-2-3 Marunouchi, Chiyoda-ku, Tokyo, (after 07/Nov./2005 it will be changed to 2-7-3)
100-8310 Japan

Tel; 81-3-3218-9024 Fax; 81-3-3218-2465

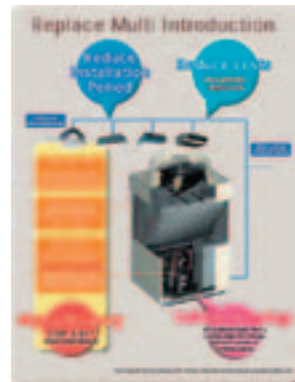
E-mail; eqd.eco@hq.melco.co.jp (eqd.eco@pj.MitsubishiElectric.co.jp (after 7/Nov./2005))

URL; <http://www.MitsubishiElectric.co.jp/corporate/eco/index.html>

Category:

- A1. Global Warming
- A4. Waste
- A5. Resource Consumption
- B1. Recyclability
- B3. Resource Saving

"Replace Multi" is the air conditioning system which is specifically designed to enable the replacement of existing multi systems utilising existing suitable pipe work. It allows upgrading to the most efficient systems available from Mitsubishi Electric. It will clean the existing pipe work during commissioning, removing any deposits that would ordinarily mean that the disruption and time. And energy consumption is reduced by 34% when comparing to our product 10 years before.



Products/Model :
REPLACE MULTI Y Series

Eco-products No.298

Building and Civil Engineering

Air conditioners

Eco-friendly multiple air conditioning system

Mitsubishi Electric Corporation

2-2-3 Marunouchi, Chiyoda-ku, Tokyo, (after 07/Nov./2005 it will be changed to 2-7-3)
100-8310 Japan

Tel; 81-3-3218-9024 Fax; 81-3-3218-2465

E-mail; eqd.eco@hq.melco.co.jp (eqd.eco@pj.MitsubishiElectric.co.jp (after 7/Nov./2005))

URL; <http://www.MitsubishiElectric.co.jp/corporate/eco/index.html>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- B3. Resource Saving
- C5. Product Use, Maintenance and Repair

"City Multi" VRF R410A system, adopting advanced refrigeration & control technology, achieves high performance and ultimate design flexibility.

- 1) Adopting R410A highly efficient inverter compressor, COP (energy consumption efficiency) upgraded by about 15% comparing to the current energy saving type (R407C).
- 2) Temperature control and management are possible from system controller, with prohibiting some function (ex. temperature/change mode) of local remote controller. It contributes for efficient air conditioning operation such as preventing excessive cooling at summer time.



Products/Model :
"City Multi" R410A series & G-50 controller

Eco-products No.299

Building and Civil Engineering

Air conditioning and household equipment

Energy-saving high efficiency Heat Exchange unit for ventilating

Mitsubishi Electric Corporation

2-2-3 Marunouchi, Chiyoda-ku, Tokyo, (after 07/Nov./2005 it will be changed to 2-7-3)
100-8310 Japan

Tel; 81-3-3218-9024 Fax; 81-3-3218-2465

E-mail; eqd.eco@hq.melco.co.jp (eqd.eco@pj.MitsubishiElectric.co.jp (after 7/Nov./2005))

URL; <http://www.MitsubishiElectric.co.jp/corporate/eco/index.html>

Category:

- A2. Air Pollution
- A1. Global Warming
- A5. Resource Consumption
- B5. Energy Saving

"Lossnay" is the name of Heat-Exchange technology. The secret to the unmatched comfort provided Lossnay core is the cross-flow, plate-fin structure off the heat-exchange unit. A diaphragm made of a specially processed paper fully fresh air is introduced to the indoor environment. The superior heat-transfer and moisture permeability of the special paper assure highly effective total heat exchange (temperature and humidity) when inducted and exhausted air supplies cross in the Lossnay core.



Products/Model :

LGH-RX4 Series

Eco-products No.300

Building and Civil Engineering

Photoelectric converter devices

Bifacial Photovoltaic Solar Module

Hitachi, Ltd. Power System PV Business Project

1-18-13 Soto-Kanda, Chiyoda-ku, Tokyo, 101-0021 Japan

Tel; Fax;

E-mail; hitachi-pv@pis-hitachi.co.jp

URL; <http://www.pi.hitachi.co.jp/solazure/index.html>

Category:

- A1. Global Warming
- B4. Higher Quality
- B5. Energy Saving

New Photovoltaic Technology, High efficiency of electric power generation by both sides. Hitachi original B3 Cell¹⁾ is bifacial photovoltaic solar cell, which has same surface design on both sides. Bifacial system can generate electric power more than 1.3 times as mono facial system. Bifacial vertical system has not dependence of yearly-generated energy on any direction. Glass-glass type module can be natural lighting and high reliability, spread the use of structural component.

1) B3Cell : Bifacial Cell with Boron Diffused Back Surface Field



Products/Model :

HB3M-48

Eco-products No.301

Building and Civil Engineering

Unit housing

Developing Environmentally Considerate Housing

Toyota Motor Corporation

1, Toyota-cho, Toyota-shi, Aichi, 471-8571 Japan
Tel; 81-565-23-1343 Fax; 81-565-23-5754
E-mail; horomasa_hino@mail.toyota.co.jp
URL; <http://www.toyota.co.jp>

Category:

- B5. Energy Saving
- A3. Hazardous Substances
- A4. Waste
- B1. Recyclability
- B2. Longevity

The SINCÉ Cada series launched in Japan in April 2004 is a form of environmentally considerate housing with standard specifications based on next-generation energy-saving standards. *The layout, which allows air from a courtyard to circulate via the staircase and blocks out the fierce heat of the afternoon sun in summer while drawing in the sun's warmth from the south in winter, is part of a design for coexistence with nature. *Next-generation energy-saving standards : Hermetically sealed and well insulated housing able to reduce by 20% the amount of energy needed for heating and air conditioning as a means of reducing CO₂ emissions.



Products/Model :
SINCÉ Cada

Eco-products No.302

Building and Civil Engineering

Seismic isolation retrofit

Seismic Isolation Retrofit construction method

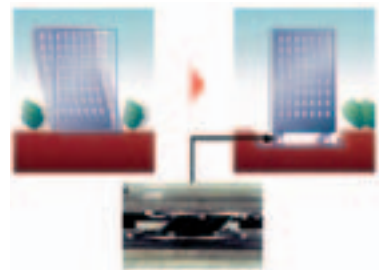
SHIMIZU CORPORATION

No.2-3, Shibaura 1-chome, Minato-ku, Tokyo, 105-8007 Japan
Tel; 81-3-5441-1111 Fax; 81-3-5441-0358
E-mail; env@shimz.co.jp
URL; <http://www.shimz.co.jp/>

Category:

- A4. Waste
- B2. Longevity
- B3. Resource Saving
- C3. Design and Material selection
- C4. Product manufactures

This is technology involves the installation of a seismic isolator to improve a structure's resistance to earthquakes and so extend its lifespan. It makes a significant contribution to resource-savings associated with the replacement of buildings that might otherwise collapse during an earthquake. It also reduces the potential for waste generation since there is little chance of a retrofit building collapsing a severe earthquake.



Products/Model :
SHIMIZU SEISMIC ISOLATION RETROFIT

Eco-products No.303

Building and Civil Engineering

Concrete recycling technology

Concrete recycling system

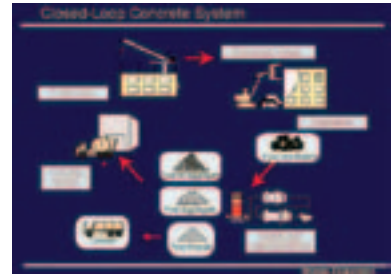
SHIMIZU CORPORATION

No.2-3, Shibaura 1-chome, Minato-ku, Tokyo, 105-8007 Japan
 Tel; 81-3-5441-1111 Fax; 81-3-5441-0358
 E-mail; env@shimz.co.jp
 URL; <http://www.shimz.co.jp/>

Category:

- A5. Resource Consumption
- B1. Recyclability
- B7. Usage of Recycled Materials
- C4. Product Manufactures
- C6. End-of-Life

This technology re-uses recycled aggregate as concrete aggregate for construction. impalpable powder as raw material of cement or foundation improvemnt material or the like. It converts a lump of concrete into high quality recycled aggregate (gravel or sand) and impalpable powder (use mainly as a cement ingredient) once its suitability for recycling has been confirmed. Maintaining the quality of aggregate make it possible to repeatedly re-use it for the same application. In addition, it is ensures 100% reutilization of a lump of concrete



Products/Model :

Closed-Loop Concrete System

Eco-products No.304

Building and Civil Engineering

Construction

DryMist System (NagoMist®)

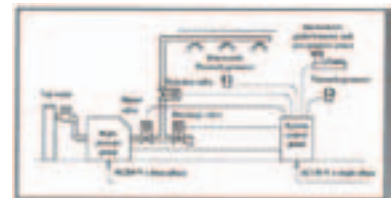
SHIMIZU CORPORATION

No.2-3, Shibaura 1-chome, Minato-ku, Tokyo, 105-8007 Japan
 Tel; 81-3-5441-1111 Fax; 81-3-5441-0358
 E-mail; env@shimz.co.jp
 URL; <http://www.shimz.co.jp/>

Category:

- A1. Global Warming
- B3. Resource Saving
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

The deteriorating environmental conditions due to urban heat islands are posing a major threat to the global environment. NagoMist® lowers the temperature using only a small amount of energy by sprinkling water particles in the air without imparting unpleasant, clammy sensation. It improves the summer ambience for semi-outdoor areas, and on a city scale, contributes to reduction of heat island phenomenon.



Products/Model :

DryMist System

Eco-products No.305

Building and Civil Engineering

Insulating panel for residential houses

Energy / resource-saving oriented insulating panel

TOSTEM CORPORATION

1-1, Ojima 2-chome, Koto-ku, Tokyo, 136-8535 Japan

Tel; 81-3-3638-8187 Fax; 81-3-3638-8352

E-mail;

URL; <http://www.tostem.co.jp>

Category:

- A1. Global Warming
- B2. Longevity
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

The insulating panel not only contributes to energy-saving through load reduction of air-conditioners at residential houses, but also promotes high durability of the houses through its earthquake-proof panel structure. Its insulation materials deploy "non-CFC forming polyurethane", which uses carbonic acid gas with ozone layer depletion coefficient 0 and global warming coefficient 1. In consideration of measures against sick house, the materials also use OSB (oriental stand board) with F four stars (F[four stars]) grade which emits least formaldehyde. The product is selected as one of the products with our own "Type [2] Eco-Label", based on our internal standard.



Eco-products No.306

Building and Civil Engineering

Non-flammable synthetic building material

VOC-absorbing MOISS interior building material

Mitsubishi Materials Corporation

19F WEST OFS 1-5-1, OTEMACHI, CHIYODA-KU, TOKYO,

100-8117 JAPAN

Tel; 81-3-5252-5331 Fax; 81-3-5252-5344

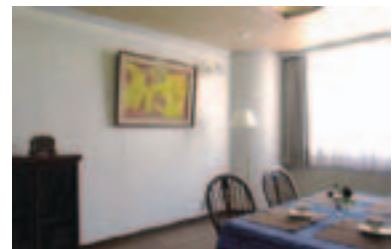
E-mail; fukushi@mmc.co.jp

URL; <http://www.mmc.co.jp>

Category:

- A5. Resource Consumption
- B1. Recyclability
- B4. Higher Quality
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

MOISS is a non-flammable synthetic building material. Since it is porous and has a large surface area, it helps to absorb and stabilize harmful Volatile Organic Compounds (VOCs). Its surroundings benefit from its moisture controlling and deodorizing properties. Surplus material can be recycled as silicic acid fertilizer for plants.



Products/Model :

MOISS

Eco-products No.307

Building and Civil Engineering

Residential house

Zero-utility-cost Houses

Sekisui Chemical Co., Ltd.

2-3-17 Toranomon, Minato-ku, Tokyo, 105-0001 Japan

Tel; Fax;

E-mail; kankyo@sekisui.jp

URL; <http://www.sekisui.co.jp/>

Category:

- A1. Global Warming
- B5. Energy Saving
- C3. Design and Material selection

Combination of the above mentioned technologies can realize zero utility cost. While utility cost/year at an ordinary residential house amounts to 226,000yen, that at highly heat insulated house adopting highly effective hot water unit, all electrification and mounting the photovoltaic generation system of 5.5kW capacity amounts to minus 1,000yen. Annual CO₂ emission as environmental value can be reduced to 580kg from 3,090kg of an ordinary residential house. Evaluating by life cycle cost, the initial costs increase by approximately 2.6 million yen in total in order to equip the house with these systems, but considering the increased costs to be depreciated by the reduction of the utility charges, they can be repaid by approximately 13 years, which may be able to be proposed to possible users as economical advantages. This house is becoming an important housing model, leading to the expansion of renewable energy and to the reduction of CO₂ emissions in Japan.



Eco-products No.308

Building and Civil Engineering

Reuse of Used Houses: Reuse System House

Reuse of Used Houses: Reuse System House

Sekisui Chemical Co., Ltd.

2-3-17 Toranomon, Minato-ku, Tokyo, 105-0001 Japan

Tel; Fax;

E-mail; kankyo@sekisui.jp

URL; <http://www.sekisui.co.jp/>

Category:

- A4. Waste
- A5. Resource Consumption
- B1. Recyclability
- B3. Resource Saving

In the Reuse System House, customers may partly trade in their used Sekisui Heim for a new Sekisui Heim or a Two-U Home. The used Sekisui Heim will be disassembled and returned to the plant, inspected, repaired as necessary and rebuilt into new modules. It is a very important system to complete the circle of our resource-recycling housing system. Steel structural components, lumber, plaster board and glass panes are reused resulting in a substantial reduction of waste, while the roofing, the installations and the interior fixtures and decorations will be renewed. 2 years have passed since the start of this system and we have pursued the following improvements: +Increase of component reuse rate More than 85% by weight of the building body is now reusable, including the reuse of flooring underlay boards.



Eco-products No.309

Building and Civil Engineering

Rainwater storage/Infiltration & re-use system

Rainwater storage/Infiltration & re-use system

Sekisui Chemical Co., Ltd.

2-3-17 Toranomon, Minato-ku, Tokyo, 105-0001 Japan

Tel; Fax;

E-mail; kankyo@sekisui.jp

URL; <http://www.sekisui.co.jp/>

Category:

- A1. Global Warming
- B1. Recyclability
- B2. Longevity
- B4. Higher Quality
- B5. Energy Saving

To solve this environmental problem which is floods or a shortage of water or global warming, our system (CrossWave, RainStation) is useful. Our system stored rainwater underground is able to control flow volume into sewers and rivers and to reuse the rainwater.

- Saving water (Global Warming, Energy Saving) To reuse the stored rainwater vastly decrease the consumption of reticulated fresh water. For example, if a 1,000m³ rainwater storage tank is set up in a shopping center used by 5,000 people a day, and collected rainwater is used to flush the toilets, the amount of reticulated water used decrease its 45%. And energy saving by load reduction of water purification plant is enabled. In addition, it can be lower temperature of the ground by sprinkling.
- Prevent a flood Our system stored rainwater underground to control flow the rainwater out.
- Excellent durability (Longevity, Recyclability) The material has an excellent durability, and is thus suitable for long-term use. The materials are recyclable. In addition, a RainStation automatically collects contaminants such as sand through its water-flow control structure.



Products/Model :

above : "CrossWave" below : "Rain Station"

Eco-products No.310

Building and Civil Engineering

Wet pavement system

Sidewalk 'Wet' pavement system to counter heat island phenomenon

OBAYASHI CORPORATION (Technical Research Institute)

640, Shimokiyoto 4-chome, Kiyose-shi Tokyo, 204-8558 Japan

Tel; 81-424-95-1040 Fax; 81-424-95-1260

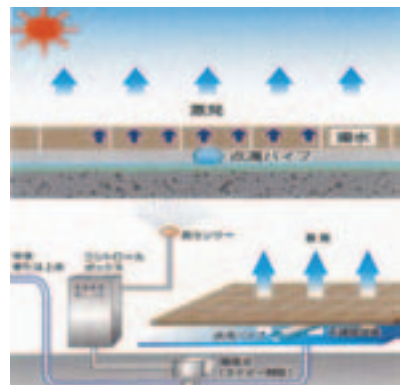
E-mail; komiya.hidetaka@obayashi.co.jp

URL; <http://www.obayashi.co.jp/>

Category:

- A1. Global Warming
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

The "wet pavement" system (water sprinkling road system), can reduce summer daytime temperature of road surfaces by approximately 25 degree Celsius lower than asphalt pavement. The wet pavement surface reduces sunlight reflection, relieving both heat and glare. A dripping water supply pipe provides a continuous cooling effect even if fine weather continues for several days. Water quantity required is 5-6 m/m for a typical fine day in summer.



Products/Model :

Wet Pavement System (Uchimizu-Pave)

Eco-products No.311

Building and Civil Engineering

Continuous subterranean diaphragm wall members

Continuous subterranean diaphragm wall members for urban areas

Nippon Steel Corporation

2-6-3, Otemachi, Chiyodaku, Tokyo, 100-8071 Japan

Tel; 81-3-3275-5144 Fax; 81-3-3275-5979

E-mail; kankyo@hq.nsc.co.jp

URL; <http://www0.nsc.co.jp/kankyou/index.html>

Category:

- A4. Waste
- A5. Resource Consumption
- B5. Energy Saving
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

Nippon Steel's NS-BOX (continuous subterranean diaphragm wall members) for the walls of urban subterranean structures reduces the generation of waste soil by reducing wall thickness. It also shortens the construction period by eliminating the need for concrete reinforcing bars, reduces the space required at construction sites, and eases traffic congestion in urban areas.



Eco-products No.312

Machines and Equipments

Chemically treated environment protecting equipment

MU SCRUBBER, fighting for clean air against air pollution

MU COMPANY LTD.

18-8, Ueno-Koen, Taito-ku, Tokyo, 110-0007 Japan

Tel; 81-3-3828-7090 Fax; 81-3-3823-2890

E-mail; muc@mu-company.com

URL; www.mu-company.com/

Category:

- A2. Air Pollution
- A3. Hazardous Substances
- B5. Energy Saving
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

Since January 1983, MU COMPANY LTD. has concentrated in the area of industrial waste gas and wastewater treatment. With our proprietary static mixing technology patented in USA, EC, China, Czech, India and Japan, we have successfully supplied many MU SCRUBBERS, one of our major products, to meet the needs of customers for treating exhaust gases generated from manufacturing lines of various industries. We are now enjoying customers' reputation thanks to the high efficiency of our devices, as our system has contributed to remarkable reduction of production and maintenance costs. Special features of MU SCRUBBER are: 1-Maintenance free, because of no adhesion of solid materials on the internals. 2-Space saving, because of compact design. 3-Respondent to wide ranges of raw gases to be treated, i.e., 100% raw gas down to 1ppm. after treatment. Some examples of applications; 1-Odour treatment facilities for rendering plants 2-Desulfurization and dust removal of stack gases 3-Removal of Silica compounds (ex. SiCl₄, SiHCl₃, SiF₄) in exhaust gas by hydrolysis process 4-Recovery of HCl gas of high concentration.



Products/Model :

Odour control device for rendering plant

Eco-products No.313

Machines and Equipments

Chemically treated environment protecting equipment

MU AERATOR®: an innovative diffuser for wastewater treatment

MU COMPANY LTD.

18-8, Ueno-Koen, Taito-ku, Tokyo, 110-0007 Japan

Tel; 81-3-3828-7090 Fax; 81-3-3823-2890

E-mail; muc@mu-company.com

URL; www.mu-company.com/

Category:

- A3. Hazardous Substances
- A4. Waste
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

MU AERATOR®, an unique diffuser for treatment of industrial wastewater and sewage, is regarded as an ideal solution to many bottlenecks the conventional diffusers inherited. Existing diffusers used for the purpose nowadays are generally of less efficiency in oxygen dissolving rate, consequently require many aeration tanks of huge sizes. Electricity consumption is substantial for mixing and agitation of the water. In case of tubular diffusers or disc/plate diffusers, they are suffered from growth of sludge or bacteria on the surface of membrane which causes clogging of the system. Cost to remove these adhesive materials is expensive. MU AERATOR® is quite different. With efficient air-liquid contact, this diffuser carries out aeration and chemical reaction simultaneously.

- (1) Highly efficient MU MIXER® installed to ensure high air-liquid contact.
- (2) No moving part anywhere in the device.
- (3) Simple structure, no clogging thus maintenance free.
- (4) No pile of sludge on the bottom of tank because of high air lift effect.
- (5) Approx. 20% of electricity saved.
- (6) Piping works can be done on the land, no hindrance to production lines.



Products/Model :

MU AERATOR® : a diffuser in operation

Eco-products No.314

Machines and Equipments

Bio-Diesel Fuel Plant

BDF Plant for Diesel Oil Alternative Fuel to fight Global Warming

Cosmo Engineering Co., Ltd.

2-5-8 Higashi-shinagawa Shinagawa-ku, Tokyo, 140-0002 Japan

Tel; 81-3-5462-0166 Fax; 81-3-5462-0169

E-mail;

URL; <http://www.cosmoeng.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- A3. Hazardous Substances
- A5. Resource Consumption
- B6. Environmental Purification

Bio-diesel fuel is a diesel oil alternative fuel that uses esterified animal and plant oil for short chain alcohol. The fuel has received attention as a result of efforts to prevent global warming, because it reduces CO₂ emissions. In addition, its flue gas is cleaner than that of diesel oil, making it eco-friendly. This plant improves the production efficiency of bio-diesel fuel, using high-productivity palm oil as stock oil and a high-efficiency reactor.



Eco-products No.315

Machines and Equipments

Hydrocarbon Vapor Recovery Unit

Hydrocarbon Vapor Recovery Unit for Protection of VOC Emission to

Cosmo Engineering Co.,Ltd.

2-5-8 Higashi-shinagawa Shinagawa-ku, Tokyo, 140-0002 Japan

Tel; 81-3-5462-0166 Fax; 81-3-5462-0169

E-mail;

URL; <http://www.cosmoeng.co.jp>

Category:

- A2. Air Pollution
- A3. Hazardous Substances
- A5. Resource Consumption
- B6. Environmental Purification
- C4. Product Manufactures

The hydrocarbon vapor recovery unit was developed to collect various hydrocarbon vapors emitted by chemical plants. For vapor recovery, an absorbent-based PSA method is used.



Eco-products No.316

Machines and Equipments

Solar system and Windmill Generator

Kaze Kamome: Hybrid Tower by solar and wind energy

Matsushita Ecology Systems Co., Ltd.

4017 Shimonakata, Takaki-cho, Kasugai City, Aichi, 486-8522 JAPAN

Tel; 81-568-81-1666 Fax; 81-568-83-1112

E-mail;

URL; <http://panasonic.co.jp/mesc>

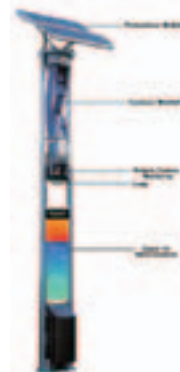
Category:

- A1. Global Warming
- A5. Resource Consumption
- B3. Resource Saving
- B4. Higher Quality
- C3. Design and Material selection

※Kaze Kamome is environmental friendly monument. 1.No emission of CO₂ using Hybrid "Solar Power" and "Wind Energy". 2.Natural energy only, no use of commercial electric. ※New type of vehicle for advertisement. 1.Appeal to the public of company's efforts toward environment. 2.Raising of environmental awareness for people. 3. Commercial sign board with its unique design.

※ Contribute toward the public and community. 1.Low noise and safe shape using Savonius Windmill. 2.Keep a degree of bright light.

- Photovoltaic Module: Solar Panels with light through design.
- Savonius Windmill: Advanced spiral design. Aerodynamic type reduces annoying noise. 30W (at wind speed 15m/second).
- Lamp: Brightly lights up all directions around the tower. Alternatively, it is optional to prevent light pollution in area where light is not required using lamp cover.
- Optional/Space for advertisement: PR environment activities, company's products, and conceptions with specific board.
- Option/Remote Camera Monitoring: Using electric power, it enables to set remote monitoring by web-camera, which is built in the core-unit.



Products/Model :
FY-17TWZ

Eco-products No.317

Machines and Equipments

General diesel engines

Ecological Diesel Engine MARK-30B

Mitsubishi Heavy Industries, Ltd.

16-5 Konan 2-chome, Minato-ku, Tokyo 108-8215 Japan

Tel; 81-3-6716-3951 Fax; 81-3-6716-5779

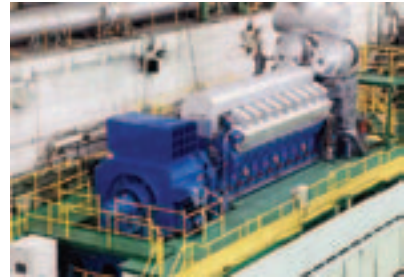
E-mail; san-ene-catalog-senyo@mhi.co.jp

URL; <http://www.mhi.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

We have achieved an efficiency of 47.0% = NOx level of less than 950ppm at O₂ = 13%, unsurpassed in diesel engines. Increased maximum pressure and fuel injection pressure of around 25%, optimization of the combustion cycle and improvement of intake exhaust efficiency provide the highest level efficiency in the world. High fuel injection pressure provides a low smoke performance. (Less than Bosch 0.1)



Products/Model :

MACH-30B Diesel Engine

Eco-products No.318

Machines and Equipments

General diesel engines

Exhaust refreshing, low-noise, high-power Diesel Engine

Komatsu Ltd.

2-3-6, Akasaka, Minato-ku, Tokyo, 107-8414 Japan

Tel; 81-3-5561-2646 Fax; 81-3-3582-8332

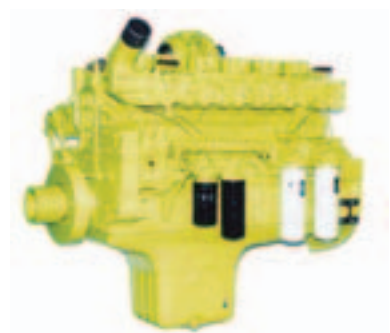
E-mail; kankyo@komatsu.co.jp

URL; <http://www.komatsu.com/>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

Injecting fuel into the engine with high pressure allows it to mix well with air. This is an effective means of reducing NOx in the exhaust from the engine and improves fuel efficiency at the same time. This common-rail fuel injection system is capable of maintaining its high-pressure injection performance even when the engine is running at low speeds. This is of special benefit for construction equipment where performance at low speeds is especially important. The new fuel injection system installed in 6D140 series engines reduces NOx emissions by about 35% and improves fuel efficiency by more than 5%. In addition, it reduces noise levels by more than 2dB(A).



Products/Model :

Diesel Engine 6D140

Eco-products No.319

Machines and Equipments

Crushers

Mobile construction crusher for recycling of waste

Komatsu Ltd.

2-3-6, Akasaka, Minato-ku, Tokyo, 107-8414 Japan

Tel; 81-3-5561-2646 Fax; 81-3-3582-8332

E-mail; kankyo@komatsu.co.jp

URL; <http://www.komatsu.com/>

Category:

- A4. Waste
- B1. Recyclability
- C6. End-of-Life

The mobile dual-axle shearer BR300S, which enables significant mixed debris volume reduction, has been upgraded with a newer model, which features a Komatsu exclusive cutter. This cutter has a sharp cutting edge and is wear-and abrasion-resistant. What's more, it utilizes segmented cleaning "fingers" which help reduce the time needed for replacing the cutter. By arranging the intake hopper and outtake conveyor belt in opposite directions, the intake hopper is accessible from three sides for material loading, increasing operational efficiency.



Products/Model :

Mobile Dual-axle Shearer BR300S

Eco-products No.320

Machines and Equipments

Mills and separators

Mobile screen for recycling of waste

Komatsu Ltd.

2-3-6, Akasaka, Minato-ku, Tokyo, 107-8414 Japan

Tel; 81-3-5561-2646 Fax; 81-3-3582-8332

E-mail; kankyo@komatsu.co.jp

URL; <http://www.komatsu.com/>

Category:

- A4. Waste
- B1. Recyclability
- C6. End-of-Life

The BM883F is a mobile screen capable of sifting aggregate into three sizes, developed for heavy-volume rock crushing and demolition work. Equipped with a steel apron feeder designed to withstand the impact of material loading, this mobile screen also utilizes finger screens on its upper deck to handle lightweight and sticky substances with ease. The BM545S, a mobile screen with two-sized sifting capability, has a compact body that gives it great maneuverability while on site. Able to point its outtake belt in three directions to meet the needs of the construction site, this mobile screen also offers an adjustable setting for the angle of the screen to accommodate various types of aggregate to be sifted.



Products/Model :

Mobile Screen BM883F

Eco-products No.321

Machines and Equipments

Power tools

The Compound Saw which considered environment (recyclability)

Hitachi Koki Co., Ltd.

Shinagawa Intercity Tower A15-1, Konan 2-chome, Minato-ku Tokyo
108-6020 Japan

Tel; 81-3-5783-0601 Fax; 81-3-5783-0709

E-mail; webmaster@hitachi-koki.co.jp

URL; <http://www.hitachi-koki.com>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B1. Recyclability
- B5. Energy Saving
- C1. Materials Extraction

- 1) The operating time is shorter than the conventional model thanks to the equipment of laser marker, the digital display panel that indicate rotary/bevel angles, and the bevel angle fine adjustment.
- 2) The product weight is 7% lower than the other companies model thanks to the improvement of design plan.
- 3) The noise level is 13dB lower than the other companies model during operation by setting optimum motor.



Products/Model :
C12LCH

Eco-products No.322

Machines and Equipments

Power tools

The Demolition Hammer which considered environment(energy-saving)

Hitachi Koki Co., Ltd.

Shinagawa Intercity Tower A15-1, Konan 2-chome, Minato-ku Tokyo
108-6020 Japan

Tel; 81-3-5783-0601 Fax; 81-3-5783-0709

E-mail; webmaster@hitachi-koki.co.jp

URL; <http://www.hitachi-koki.com>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B2. Longevity
- B5. Energy Saving
- C1. Materials Extraction

- 1) The product life is 15% higher than the conventional model by setting optimum striking characteristics.
- 2) The striking transmission efficiency improves and the efficiency (quantity of electricity is 13% higher than the conventional model thanks to the shape optimization of a striking part).
- 3) The noise level is 4dB lower than the conventional model.



Products/Model :
H65SB2

Eco-products No.323

Machines and Equipments

Foundry equipment

Highly Viscous Liquid Processing Technology

Hitachi, Ltd.

1-18-13 Soto-Kanda, Chiyoda-ku, Tokyo, 101-0021 Japan

Tel; Fax;

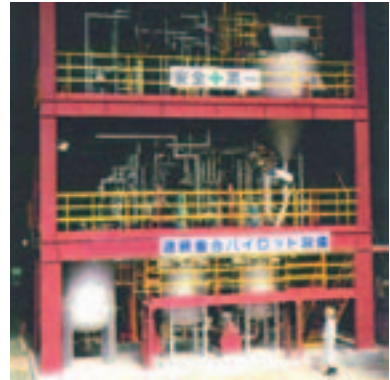
E-mail;

URL; <http://www.pi.hitachi.co.jp/sanpu/index.html>

Category:

- B7. Usage of Recycled Materials
- C2. Material and Components Production

Biodegradable plastics production process based on development, demonstration and scale up technology for various engineering plastic production process. The early realization of biodegradable plastics production process based on various experiences and reliable demonstration pilot plant. Quick utilization and commercialization of biodegradable plastics products based on reliable scale up technology. Realization of suitable production process based on reliable highly viscous liquid processing technology.



Products/Model :

Highly Viscous Liquid Processing Technology

Eco-products No.324

Machines and Equipments

Parts, attachments and accessories of plastic working machinery and auxiliary equipment

Fully Electric Injection Molding Machine

Toyo Machinery & Metal Co., Ltd.

523-1 Fukusato, Futamicho, Akashi-shi, Hyougo, 674-0091 Japan

Tel; 81-78-943-7474 Fax; 81-78-943-7222

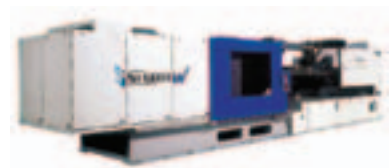
E-mail; se-g@toyo-mm.co.jp

URL; <http://www.toyo-mm.co.jp/>

Category:

- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving

Minimum Energy and Utility Consumption. The Si-III series consumes approximately one-third of the electricity which ordinary hydraulic machines necessitate. When it comes to cooling water, the water consumption will be one-tenth that required by hydraulic machines. In conclusion, the running cost is tremendously low, saving you a lot of utilities.



Products/Model :

Si-680 IIIW

Eco-products No.325

Machines and Equipments

Parts, attachments and accessories of plastic working machinery and auxiliary equipment

Vertical and Fully Electric Disc Molding Machine

Toyo Machinery & Metal Co., Ltd.

523-1 Fukusato, Futamicho, Akashi-shi, Hyougo, 674-0091 Japan

Tel; 81-78-9437474 Fax; 81-78-9437222

E-mail; se-g@toyo-mm.co.jp

URL; <http://www.toyo-mm.co.jp/>

Category:

- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving

Minimum Energy and Utility Consumption. Space efficiency, work efficiency, and time efficiency. Efficiency improvement is requested in all respects as for the molding machine now. The ET series is a new and powerful rotary molding machine equipped with an advanced function in a compact body only of type.



Products/Model :
ET-80VR2

Eco-products No.326

Machines and Equipments

Vacuum pumps

EI-D Series energy-saving type power supply unit

Shimadzu Corporation

1, Nishinokyo-kuwabara-cho, Nakagyo-ku, Kyoto, 604-8511 Japan

Tel; 81-75-823-1113 Fax; 81-75-823-2062

E-mail; kksitu@group.shimadzu.co.jp

URL; <http://www.shimadzu.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Turbo-molecular pump is vacuum pump which make up clean ultra-high vacuum by carrying out the molecular-level exhaust by means of high-speed rotation of turbine blade. The new-model power supply unit (EI-D Series) achieved its weight reduction with the help of a new control circuit which comprises DSP (Digital Signal Processor) and HIC (Hybrid IC) and of the high-density packaging technology. In comparison with our previous-model product, the volume and the weight reduced by 50%, respectively. The maximum power consumption also reduced by 30% by installing the new-model power supply unit.



Products/Model :
EI-D Series pump power supply

Eco-products No.327

Machines and Equipments

Industrial special machinery and equipment

Energy-saving nitrogen generator with a non-freon process

TAIYO NIPPON SANSO Corporation

1-3-26, Koyama, Shinagawa, Tokyo, 142-8558 Japan

Tel; 81-3-5788-8490 Fax; 81-3-5788-8712

E-mail;

URL; <http://www.tn-sanso.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

The generator provides nitrogen in places where there is a high demand for nitrogen gas. It uses a non-freon process, which does not require the freon refrigerator necessary in a traditional production process. The JN type offers low noise level as standard. The MG type is a high efficiency device, which increases nitrogen yield by improving the production process. It also realizes to reduce power consumption 20% less than our previous models.



Products/Model :

Nitrogen generator (JN type, MG type)

Eco-products No.328

Machines and Equipments

Industrial special machinery and equipment

High-efficiency dry scrubber for the semiconductor industry

TAIYO NIPPON SANSO Corporation

1-3-26, Koyama, Shinagawa, Tokyo 142-8558 Japan

Tel; 81-3-5788-8470 Fax; 81-3-5788-8712

E-mail;

URL; <http://www.tn-sanso.co.jp>

Category:

- A3. Hazardous Substances
- A4. Waste
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

Many specialty gases used in semiconductor production are dangerous due to their toxicity, causticity or combustibility and needed to be scrubbed when discharged to the atmosphere. A typical method of scrubbing is dry scrubbing. GB4, a scrubbing agent developed by our company and used in this equipment, has high reaction efficiency with hydride gases such as AsH₃ and PH₃ and can treat a larger volume of gases per unit, making it extremely cost-effective. In addition, the equipment was designed with considering safety. There is no risk of thermal runaway because exothermic temperature during reaction is low. This also allows you to see at a glance how far the reaction has proceeded because the scrubbing agent changes color in the process of reaction.



Products/Model :

VEGA-Z

Eco-products No.329

Machines and Equipments

Industrial special machinery and equipment

High performance tonnage air separation plant

TAIYO NIPPON SANSO Corporation

1-3-26, Koyama, Shinagawa, Tokyo, 142-0062 Japan

Tel; 81-3-5788-8380 Fax; 81-3-5788-8711

E-mail;

URL; <http://www.tn-sanso.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

The air separation plant produces oxygen and nitrogen by separating air at cryogenic temperature. Our latest tonnage air separation plant offers 15% less power consumption than our previous models by means of employing.

- (1) a high performance air compressor.
- (2) packed columns which reduce the pressure losses of the columns down to 30% of traditional sieve tray columns and outlet pressure of air compressor.
- (3) a falling film condenser which also reduces outlet pressure of air compressor.



Products/Model :

Air separation plant

Eco-products No.330

Machines and Equipments

Parts, attachments and accessories of pumps and pumping equipment

Hz free pump controller: Energy conservation and resource-saving.

Ebara Corporation

11-1Haneda Asahi-cho,Ohta-ku,Tokyo, 144-8510 Japan

Tel; 81-466-83-8651 Fax; 81-466-81-2274

E-mail;

URL; <http://www.ebara.co.jp>

Category:

- B4. Higher Quality
- B5. Energy Saving
- C4. Product Manufactures
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

1. Energy-saving operation (Achieves an average 35% energy reduction with adjustable functions.)
2. Low maintenance (No maintenance provisions such as cooling fan due to water-cooling method using pumped liquid.)
3. Resource-saving Minmum life cycle cost (total energy amount from production to dumping) necessary for fabricating products.



Products/Model :

EECF52.2

Eco-products No.331

Machines and Equipments

Parts, attachments and accessories of air compressors, gas compressors and blowers

Inverter control compressor

Hitachi Industrial Equipment Systems Co., Ltd.

3 Kanda-Neribeicho, Chiyoda-ku, Tokyo, 101-0022 Japan

Tel; 81-3-4345-6045 Fax; 81-3-4345-6910

E-mail;

URL; <http://www.hitachi-ies.co.jp/products/cmp/middle/oilfree/dspv.htm>

Category:

- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving

Power reduction of 15%. Because it is a pressure constancy control, the set pressure can be set low compared with loading/unloading control machine.



Products/Model :

Inverter control compressor

Eco-products No.332

Machines and Equipments

Industrial furnaces and ovens

Eco-isothermal Heat Treating Furnace with Clean and Dry HOTGAS

Taniguchi Heat Treatment Co., Ltd.

853 Kitagawa, Saijo, Ehime, 793-0042 Japan

Tel; 81-897-55-5515 Fax; 81-897-56-8877

E-mail; hamabe@e-rinkai.or.jp

URL; <http://www.e-rinkai.or.jp/tanikin>

Category:

- A3. Hazardous Substances
- A4. Waste
- B1. Recyclability
- B5. Energy Saving
- C2. Material and Components Production

Based upon a new concept, a new type of heat treating furnace is invented, and being constructed in our premises for demonstration. The title under "HOT GAS QUENCHING DEVICES, AND HOT GAS HEAT TREATING SYSTEM" is internationally applied for a patent. HOTGAS for heat treating furnaces are contrived to propose replacement of salt baths which bear heavy environment loads such as waste disposal of deteriorated spent salts, inferior working conditions and low heat efficiency. HOTGAS is a registered trademark. Hot gas is preheated (inert) gas, replacing wet molten salts, and clean and dry heat medium heated up to approximately 900K mainly for isothermal heat treatment.



Products/Model :

five-chamber HOTGAS continuous furnace

Eco-products No.333

Machines and Equipments

Industrial furnaces and ovens

ModulTherm for vacuum carburizing

Daido Steel Co., Ltd.

6-35,1-CHOME,KONAN,MINATO-KU,TOKYO, 108-8478 Japan

Tel; 81-3-5495-1283 Fax; 81-3-5495-6744

E-mail; y-tomida@bw.daido.co.jp

URL; <http://www.daido.co.jp>

Category:

- A1. Global Warming
- B4. Higher Quality
- B5. Energy Saving
- B6. Environmental Purification
- C3. Design and Material selection

ModulTherm, linked multi-chamber furnace system for vacuum case-hardening process. Much less energy consumption and less CO₂ emission than conventional process. High temperature carburizing and carbide disperse carburizing available. Maintenance of a module with other modules under operation. Adding modules after installation available according to increase of production. Test furnace with a scale of mass production is ready in Japan for your trial. A large number of conventional gas carburizing furnace has been built and still in operation in auto industry. Conventional process causes much running cost and mass CO₂ emission. Daido's ModulTherm offers high quality and mass production with low running cost and low CO₂ emission. As a material supplier, Daido will propose a solution for material and furnace technology.



Products/Model :

ModulTherm

Eco-products No.334

Machines and Equipments

Industrial furnaces and ovens

COPPER TUBE ANNEALING FURNACE WITH DEGREASING SYSTEM

Daido Steel Co., Ltd.

6-35,1-CHOME,KONAN,MINATO-KU,TOKYO, 108-8478 Japan

Tel; 81-3-5495-1283 Fax; 81-3-5495-6744

E-mail; y-tomida@bw.daido.co.jp

URL; <http://www.daido.co.jp>

Category:

- A1. Global Warming
- B3. Resource Saving
- B5. Energy Saving
- B6. Environmental Purification
- C3. Design and Material selection

When the manufacturing of Chlorofluorocarbon and Trichloroethane were regulated, air-conditioner makers started the part processing by using a high volatility lubricating oil for abolition of a washing process of a former lubricating oil inside of a copper tube. But its detergency was not good, and it becomes the cause that brazing process is poor. Daido's "COPPER TUBE ANNEALING FURNACE WITH DEGREASING SYSTEM" makes it possible that automatic degreasing of inside of a copper tube will be done in the heating furnace, without washing process. Its removal grade of degreasing is under 0.1mg/m if there is 10mg/m or more remaining grease inside of a copper tube.



Products/Model :

COPPER TUBE ANNEALING FURNACE

Eco-products No.335

Machines and Equipments

Filters

Compact water treatment system using combination OZONE & MEMBRANE

Mitsubishi Electric Corporation

2-2-3 Marunouchi, Chiyoda-ku, Tokyo, 100-8310 Japan
(after 07/Nov./2005 it will be changed to 2-7-3)
Tel; +81-3-3218-9024 Fax; +81-3-3218-2465
E-mail; eqd.eco@hq.melco.co.jp
(eqd.eco@pj.MitsubishiElectric.co.jp (after 7/Nov./2005))
URL; <http://www.MitsubishiElectric.co.jp/corporate/eco/index.html>

Category:

- A3. Hazardous Substances
- A4. Waste
- B6. Environmental Purification
- C6. End-of-Life

Compact water purification equipment, using the combination of ozone treatment and membrane filtration, enables to supply high quality water.

Quality : Strong disinfection power of ozone (pathogenic protozoa such as Cryptosporidium), deodorization, decolorization and COD reduction.

Compact : All functions of a water treatment plant are installed on a single base, which can be transported by a cargo truck.

Eco-friendly : Exhaust ozone is treated into oxygen.



Products/Model :

Packaged Ozone using water filter

Eco-products No.336

Machines and Equipments

Chemically treated environment protecting equipment

High Sensitive Oil Odor Sensor

Mitsubishi Electric Corporation

2-2-3 Marunouchi, Chiyoda-ku, Tokyo, (after 07/Nov./2005 it will be changed to 2-7-3) 100-8310 Japan
Tel; 81-3-3218-9024 Fax; 81-3-3218-2465
E-mail; eqd.eco@hq.melco.co.jp (eqd.eco@pj.MitsubishiElectric.co.jp (after 7/Nov./2005))
URL; <http://www.MitsubishiElectric.co.jp/corporate/eco/index.html>

Category:

- A3. Hazardous Substances
- A4. Waste
- B6. Environmental Purification

The introduction of a quartz resonator system has made it possible for the system to sense oil via odor at a degree that is nearly undetectable by humans, being able to do so in only 15 minutes.



Products/Model :

High Sensitive Oil Odor Sensor

Eco-products No.337

Machines and Equipments

General industrial machinery and equipment

Biodegradable plastic made from eco-friendly materials

Ebara Corporation

11-1Haneda Asahi-cho,Ohta-ku,Tokyo, 144-8510 Japan

Tel; 81-3-5461-5205 Fax; 81-3-5461-6006

E-mail;

URL; <http://www.ebara.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B3. Resource Saving
- B7. Usage of Recycled Materials
- C1. Materials Extraction

It is a substitute plastic manufacturing technology with the function of biodegradation. The purpose is conversion into high-value added functional material and utilization of food industry garbage. It has an effect of preserving of fossi-resource and reduction of gases that effect global warming.



Products/Model :

Products Utilizing Poly-lactic Acid

Eco-products No.338

Machines and Equipments

Chemical machinery and its equipment

Liquefied CO₂ Manufacturing System

Hitachi Industries co., Ltd

9-7 Ikenohata 2-chome, Taito-ku, Tokyo, 110-0008 Japan

Tel; 81-3-5814-5611 Fax; 81-3-5814-5627

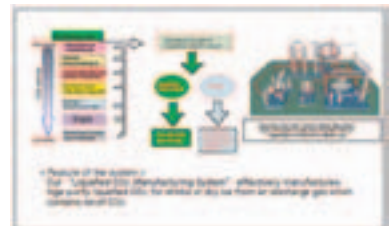
E-mail;

URL; <http://www.hitachi-hic.com>

Category:

- A2. Air Pollution
- B7. Usage of Recycled Materials
- C4. Product Manufactures

Carbon dioxide for the beverage and the dry ice are manufactured from CO₂ discharged into atmosphere. Atmospheric discharges CO₂ of the ammonia manufacturing plant exhaust gas and the beer brewery fermentation gas, etc. are collected and they are recycled. High purity (99.99vol% or more) liquefaction carbon dioxide for the beverage is manufactured by using the preprocessing and the refinement technology. The running cost (electricity, cooling water, compression air, and steam) has been improved by 19% compared with its own the past.



Products/Model :

Future of the system

Eco-products No.339

Machines and Equipments

General industrial machinery and equipment

ECO-SYOUGUN-1

Meiwa Kosakusho Co., LTD

4123 senda-cho, fukuyama-city, hirosima, 720-0013 Japan

Tel; 81-84-955-2122 Fax; 81-84-955-3597

E-mail; meiwa@kk-miw.com

URL; <http://www.kk-miw.com>

Category:

- B1. Recyclability

ECO-SYOUGUN-1 comes to crush between the gear and the gear like the dried cuttlefish squid when he or she turns on a used PET bottle from the drinking mouth. It is cut out to have gone out and cuts out the ring and the label with the cutter. When the machine is characterized, it reduces, the transportation cost is decreased greatly, and easily separating and the label becomes possible. It becomes a former radical that makes pet flakes of the high quality.



Products/Model :
ECSG-1

Eco-products No.340

Machines and Equipments

General industrial machinery and equipment

Eco-friendly Incinerator: Energy-saving waste treatment plant

Ebara Corporation

11-1Haneda Asahi-cho,Ohta-ku,Tokyo, 144-8510 Japan

Tel; 81-3-5783-8532 Fax; 81-3-5461-6011

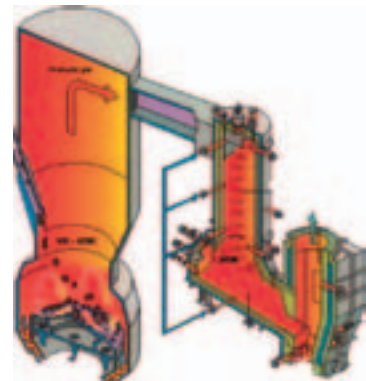
E-mail;

URL; <http://www.ebara.co.jp>

Category:

- A2. Air Pollution
- A4. Waste
- B1. Recyclability
- B5. Energy Saving
- C6. End-of-Life

The incinerator recycles collected metals and produces ash slag with heat created by the refuse itself. Waste put into a gasification furnace is gasified and burned at high temperature to decompose dioxin. In addition, since no fossil fuels are used for combustion it prevents global warming and reduces CO₂. Residues and slag can be reused for road asphalt, reducing the amount of waste going to a final disposal site. Its low power consumption ensures high-efficiency waste power generation, and waste heat can be used for local community facilities.



Products/Model :
TIFG

Eco-products No.341

Machines and Equipments

General industrial machinery and equipment

Industrial-wastewater-recycle system using NFmembrane

Ebara Corporation

11-1Haneda Asahi-cho,Ohta-ku,Tokyo, 144-8510 Japan

Tel; 81-3-5783-8541 Fax; 81-3-5461-6011

E-mail;

URL; <http://www.ebara.co.jp>

Category:

- A4. Waste
- B1. Recyclability
- B3. Resource Saving
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

This system clears the way for recycling of wastewater from factories like refreshing beverage manufacturing plant for cooling and other usage water in factory, following filtration by Nfmembrane. Water recycling permits reduction of environment burden such as reduction of industrial water quantity used, reduction of emissions of wastewater from factory. It also reduces environment burden from the viewpoint of resource consumption as it use no chemicals.



Products/Model :

Industrial-wastewater-recycle system using NF

Eco-products No.342

Machines and Equipments

General industrial machinery and equipment

High Load Type EGSB (Expanded Granular Sludge Bed) Technology

Ebara Corporation

11-1Haneda Asahi-cho,Ohta-ku,Tokyo, 144-8510 Japan

Tel; 81-3-5783-8541 Fax; 81-3-5461-6011

E-mail;

URL; <http://www.ebara.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B5. Energy Saving
- B6. Environmental Purification

Organic wastewater from brewery and soft drink-manufacturing factory is purified through anaerobic treatment in this system. In addition, it permits reclamation of methane gas from wastewater. Compared to UASB (Upflow Anearobic Sludge Blanket) method, the conventional representative technology of anaerobic treatment, the treatment performance of this system is enhanced up to as 2-3 times high as that of method, resulting in space-saving and tremendous decrease in operating cost. Moreover, energy recovery such as heat recovery or power generation becomes possible, by recovered methane gas.



Products/Model :

High Load Type EGSB

Eco-products No.343

Machines and Equipments

General industrial machinery and equipment

Bison: On site methane fermentator for livestock waste

Ebara Corporation

11-1Haneda Asahi-cho,Ohta-ku,Tokyo, 144-8510 Japan

Tel; 81-3-5461-5205 Fax; 81-3-5461-6006

E-mail;

URL; <http://www.ebara.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

It can be installed in individual farmhouses, automatically operating to ferment methane from livestock excrement. The biomass-energy of livestock excrement is efficiently utilized to make it a self-supporting type that covers power and heat required for the fermentation process per se, allowing low-cost operation. It is administering to dairy farming environment as a methane fermentation apparatus with faemer's labor and economical burden controlled, reflecting the need for an appropriate utilization and treatment of livestock excrement.



Products/Model :

Bison

Eco-products No.344

Machines and Equipments

General industrial machinery and equipment

Functional Plant Cultivation system: Small water volume hydroponics-system

Ebara Corporation

11-1Haneda Asahi-cho,Ohta-ku,Tokyo, 144-8510 Japan

Tel; 81-3-5461-5205 Fax; 81-3-5461-6006

E-mail;

URL; <http://www.ebara.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B2. Longevity
- B7. Usage of Recycled Materials
- C1. Materials Extraction

It is a cultivation system with designing to automatically control the amount of water and fertilizer. Compared to the conventional hydroponics cultivation, Ebara Corp. accomplished resource-saving and energy-saving of fertilizer and water by roughly 50% (Ebara estimation). It is environmentally-friendly system which hardly generates waste.



Products/Model :

Actual Results of Eco-vegetable System

Eco-products No.345

Machines and Equipments

General industrial machinery and equipment

pipi-tarou

meiwa kosakusho Co., LTD

4123 Senda-cho, Fukuyama-city, Hiroshima, 720-0013 Japan

Tel; 81-84-955-2122 Fax; 81-84-955-3597

E-mail; meiwa@kk-miw.com

URL; <http://www.kk-miw.com>

Category:

- B1. Recyclability

Pipi Taro enters the nylon bag minuting determining that a used pp band is put in the turning on entrance with the cutter. Because the PP band that is bulky is minuting determined when the machine is characterized, it becomes easy to handle, and the transportation cost is decreased sharply. The PP band that minute determines it is recycled and revives again as PP band.



Eco-products No.346

Machines and Equipments

Centrifugal Chiller

Centrifugal Chiller that achieves the highest efficiency level

Mitsubishi Heavy Industries, Ltd.

16-5 Konan 2-chome, Minato-ku, Tokyo, 108-8215 Japan

Tel; 81-3-6716-4288 Fax; 81-3-6716-5855

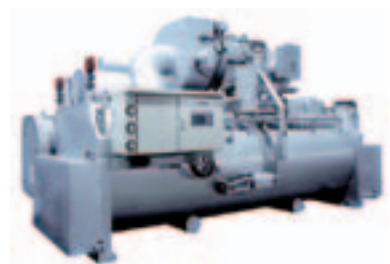
E-mail;

URL; <http://www.mhi.co.jp/aircon/english/>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Mitsubishi Heavy Industries' centrifugal chiller using HFC-134a refrigerant with zero ozone depletion potential succeeded in achieving the world's highest COP and reducing environmental impact burden. The "AART" series achieved the a world's record 6.4 COP at full load, along with and the "NART" series that also achieved the a world record 17.8 COP at partial load by applying inverter control. Consequently, these chillers contribute to the prevention of global warming by cutting more CO₂ emission than conventional chillers.



Eco-products No.347

Machines and Equipments

Refrigerators and air conditioning apparatus

Large capacity scroll Compressor

Hitachi Air Conditioning Systems Co., Ltd.

1-16-1 Kaigan, Minato-ku, Tokyo, 105-0022 Japan

Tel; 81-543-35-4265 Fax; 81-543-35-4287

E-mail; ecology@cm.shimizu.hitachiacs.co.jp

URL;

Category:

- A3. Hazardous Substances
- A5. Resource Consumption
- B5. Energy Saving

A Next Generation High COP1) Compressor Using R410A2). Improved coefficient of performance (COP) by 11% (CO₂ emission reduced by 11% when the unit is installed) Adopted a vector control inverter Adopted a new shape asymmetrical lap with the original oil circulation system High reliability due to a high precision bearing system.

- 1) COP : coefficient of performance
- 2) R410A : a substitute refrigerant that does not contain chlorine and does not destroy the Ozone layer



Eco-products No.348

Machines and Equipments

Engine generators (AC)

Ecological High Performance Gas Engine MACH-30G

Mitsubishi Heavy Industries, Ltd.

16-5 Konan 2-chome, Minato-ku, Tokyo 108-8215 Japan

Tel; 81-3-6716-3951 Fax; 81-3-6716-5779

E-mail; san-ene-catalog-senyo@mhi.co.jp

URL; <http://www.mhi.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

We have achieved an efficiency of 45.7% = NO_x level 320ppm as O₂ = 0% that is unsurpassed in gas engines. We have also achieved an efficiency of 46.4% (Power factor = 1, without engine driven pump) with miller cycle system. MACH-30G maintains high level of efficiency even in low load operation and is much less affected by atmospheric temperatures than gas turbines. This makes it possible to achieve greater advantage in actual operations and maintenance in comparison with gas turbines, including a gas turbine of similar output. MACH-30G can be one of the best solution for your gas fuel power generation.



Products/Model :

MACH-30G Gas Engine

Eco-products No.349

Machines and Equipments

Three-phase induction motors, 70 W or more

Highly effective motor

Hitachi Industrial Equipment Systems Co., Ltd.

3 Kanda-Neribeicho, Chiyoda-ku, Tokyo, 101-0022 Japan

Tel; 81-3-4345-6045 Fax; 81-3-4345-6910

E-mail;

URL; <http://www.hitachi-ies.co.jp/index.htm> (Japanese)

Category:

- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving

New highly effective motor that contributes to conservation of energy in various machines. The optimization of the core shape that is the heart of the motor and making the material high-level are advanced to a past, highly effective motor further, and the loss is decreased about 20-30% (compared with our standard motor). The stator coil temperature has been decreased at about 10-20C by the effect of a high cooling of a reasonable design and the aluminum alloy frame of Electricity Division.



Products/Model :
TFO-K

Eco-products No.350

Machines and Equipments

Miniature generators

Large wind generator: Wind energy converter, renewable energy.

Ebara Corporation

11-1Haneda Asahi-cho,Ohta-ku,Tokyo, 144-8510 Japan

Tel; 81-3-5735-3097 Fax; 81-3-5735-3167

E-mail;

URL; <http://www.ebara.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B3. Resource Saving
- B7. Usage of Recycled Materials
- C5. Product Use, Maintenance and Repair

A wind generator is a machine that rotates windmills with wind and generates electricity. Since the generator uses renewable energy(wind), it emits no hazardous chemical substances or CO₂ from power generation, and allows construction of power stations with less environmental impact. Three with a diameter of 50 to 70m rotate a shaft with wind force. This shaft is connected to the generator and its rotation generates electricity. Electricity generated is supplied to local electric power companies.



Products/Model :
Wind turbine / EPW1570

Eco-products No.351

Machines and Equipments

Miniature generators

Highly effective mini-Hydroelectric Generator

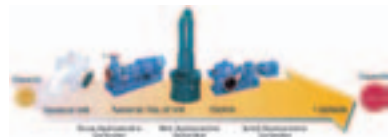
Mitsubishi Electric Corporation

2-2-3 Marunouchi, Chiyoda-ku, Tokyo, 100-8310 Japan
(after 07/Nov./2005 it will be changed to 2-7-3)
Tel; +81-3-3218-9024 Fax; +81-3-3218-2465
E-mail; eqd.eco@hq.melco.co.jp
(eqd.eco@pj.MitsubishiElectric.co.jp (after 7/Nov./2005))
URL; <http://www.MitsubishiElectric.co.jp/corporate/eco/index.html>

Category:

- A1. Global Warming
- B3. Resource Saving
- B5. Energy Saving
- B4. Higher Quality
- A2. Air Pollution

Until recently, large-scale dams were required for hydroelectricity projects. However, Mitsubishi Electric has developed and is now manufacturing a compact hydroelectric power generation system that operates effectively with a small water flow and requires a height difference of only several meters. Water flows previously not thought applicable for hydropower production such as small rivers, industrial-use water, water pipelines and even sewage lines, can now be utilized to produce electricity. One hydropower plant with an electricity output of 100kW can result in a CO₂ emissions reduction of 626t per year.



Products/Model :

Mini-Hydroelectric Generator

Eco-products No.352

Machines and Equipments

Standard transformers

High-Efficiency Oil-Filled transformer for industrial use

Mitsubishi Electric Corporation

2-2-3 Marunouchi, Chiyoda-ku, Tokyo, 100-8310 Japan
(after 07/Nov./2005 it will be changed to 2-7-3)
Tel; +81-3-3218-9024 Fax; +81-3-3218-2465
E-mail; eqd.eco@hq.melco.co.jp
(eqd.eco@pj.MitsubishiElectric.co.jp (after 7/Nov./2005))
URL; <http://www.MitsubishiElectric.co.jp/corporate/eco/index.html>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B1. Recyclability
- B3. Resource Saving
- B4. Higher Quality

"High-efficiency oil-filled transformer EX series", (which conforms to energy saving standard of 2006) contributes to energy saving, reducing 60% overall loss by using original reduced-loss design technologies. Since the reduced-loss allows cutback of radiation fins and realizes a major downsizing of the product, it requires 20% less installation space than standard products. Moreover, its iron cores, coils, and structural parts are made from recyclable materials to ensure effective use of resources. (Recycle ratio is 93%)



Products/Model :

EX series

Eco-products No.353

Machines and Equipments

Standard transformers

High-Efficiency Oil-Filled transformer for industrial use

Mitsubishi Electric Corporation

2-2-3 Marunouchi, Chiyoda-ku, Tokyo, 100-8310 Japan
(after 07/Nov./2005 it will be changed to 2-7-3)
Tel; +81-3-3218-9024 Fax; +81-3-3218-2465
E-mail; eqd.eco@hq.melco.co.jp
(eqd.eco@pj.MitsubishiElectric.co.jp (after 7/Nov./2005))
URL; <http://www.MitsubishiElectric.co.jp/corporate/eco/index.html>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B1. Recyclability
- B3. Resource Saving
- B4. Higher Quality

1. "High-efficiency oil-filled transformer TX series" conforms to the Energy saving standard of Top-Runner method.
2. Its iron cores, coils, and structural parts are made from highly recyclable materials.
3. Achieved 93% of Recycle ratio, metal parts and mineral oil are recycled.



Products/Model :
TX series

Eco-products No.354

Machines and Equipments

Parts, attachments and accessories of relay switches, switchboards and electrical control equipment

Eco-friendly accurate Energy measuring unit

Mitsubishi Electric Corporation

2-2-3 Marunouchi, Chiyoda-ku, Tokyo, 100-8310 Japan
(after 07/Nov./2005 it will be changed to 2-7-3)
Tel; +81-3-3218-9024 Fax; +81-3-3218-2465
E-mail; eqd.eco@hq.melco.co.jp
(eqd.eco@pj.MitsubishiElectric.co.jp (after 7/Nov./2005))
URL; <http://www.MitsubishiElectric.co.jp/corporate/eco/index.html>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving

"EcoMonitorPro" accurately measures the electric power consumption of each facility or production line in factories or buildings. By collecting and analyzing measured data, it pinpoints the energy consumption required to produce one product in a specific process-as well as the cause of wasteful stand-by power. This equipment identifies points where further energy savings are possible, helping users to save energy. Furthermore, it contributes to the reduction of environmental impact through its compact size, low resource consumption, module structure, and low power consumption.



Products/Model :
"EcoMonitorPro" EMU2-RD7-C

Eco-products No.355

Machines and Equipments

Power transformers

Super-Compact 7.2 kV Switchgear

Hitachi, Ltd.

1-18-13 Soto-Kanda, Chiyoda-ku, Tokyo, 101-0021 Japan

Tel; Fax;

E-mail; sse@pis.hitachi.co.jp

URL; http://www.pi.hitachi.co.jp/sse/products01/equipment/2005838_15209.html

Category:

- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving

High-voltage switchgear for the steady supply of electricity at 6,000 volts to offices from power lines. We succeeded in reducing installation space by one-third through employing advanced insulation technology, resulting in a lighter product (66% compared with previous models) and concomitant resource savings. The use of a modular design also enables the sharing of materials, greater reusability, and greater transportability.



Products/Model :
Super-Compact 7.2 kV Switchgear

Eco-products No.356

Machines and Equipments

Power transformers

Amorphous transformer

Hitachi Industrial Equipment Systems Co., Ltd.

3 Kanda-Neribeicho, Chiyoda-ku, Tokyo, 101-0022 Japan

Tel; 81-3-4345-6045 Fax; 81-3-4345-6910

E-mail;

URL; http://www.hitachi-ies.co.jp/products/trans/amo_oil/index.htm

Category:

- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving

All losses were achieved and the decrease to about the maximum 38% was achieved. Amorphous alloys is a solid of non-crystal made from cooling from the state of Melting rapidly. The no-load loss (eddy current disadvantage + disadvantage of hysteresis) can be decreased to about 1/5 compared with the silicon Steel.



Products/Model :
Amorphous transformer

Eco-products No.357

Machines and Equipments

Air conditioners

High performance, energy-saving air conditioner

DAIKIN INDUSTRIES, LTD.

Umeda Center Bldg., 2-4-12, Nakazaki-Nishi, Kita-ku, Osaka,
530-8323 Japan

Tel; 81-6-6374-9304 Fax; 81-6-6373-4380

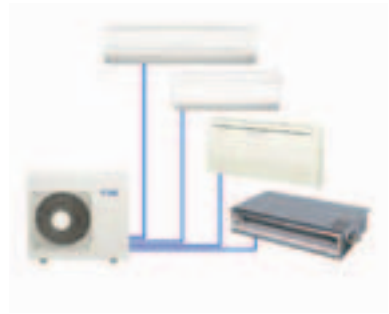
E-mail; kankyo@daikin.co.jp

URL; <http://www.daikin.co.jp>

Category:

- A1. Global Warming
- B5. Energy Saving

Daikin's SUPER MULTI NX with DC inverter offers top-class energy savings, quiet operation, and a wide range of models to provide you with maximum comfort while respecting homes and people. Furthermore, the newly designed wall-mounted type D series won the prestigious Good Design Award in Japan.



Products/Model :
SUPER MULTI NX

Eco-products No.358

Machines and Equipments

Air conditioners

High performance, energy-saving air conditioner

DAIKIN INDUSTRIES, LTD.

Umeda Center Bldg., 2-4-12, Nakazaki-Nishi, Kita-ku, Osaka,
530-8323 Japan

Tel; 81-6-6374-9304 Fax; 81-6-6373-4380

E-mail; kankyo@daikin.co.jp

URL; <http://www.daikin.co.jp>

Category:

- A1. Global Warming
- B5. Energy Saving

Daikin's new Super Multi Plus D series is now connectable to up to 9 indoor units and offers you a richer choice of indoor units to coordinate with each room décor. Advanced technology from Daikin has improved COP and reduced sound levels to suit today's modern living environment.



Products/Model :
SUPER MULTI PLUS

Eco-products No.359

Machines and Equipments

Air conditioners

High performance, energy-saving air conditioner

DAIKIN INDUSTRIES, LTD.

Umeda Center Bldg., 2-4-12, Nakazaki-Nishi, Kita-ku, Osaka,
530-8323 Japan

Tel; 81-6-6374-9304 Fax; 81-6-6373-4380

E-mail; kankyo@daikin.co.jp

URL; <http://www.daikin.co.jp>

Category:

- A1. Global Warming
- B5. Energy Saving

<Energy savings>

Saves up to 70% of power consumption than standard model. Install the latest original technique, Reluctance DC Motor, which was awarded the IEE prize of Promotion and Advancement.

<Quiet operation>

The industry's top class quiet design by using Hybrid aerofoil fan (for outdoor units). A new Night quiet mode is incorporated (for outdoor units).



Products/Model :
Super Inverter 70

Eco-products No.360

Machines and Equipments

Air conditioners

High performance, energy-saving air conditioner

DAIKIN INDUSTRIES, LTD.

Umeda Center Bldg., 2-4-12, Nakazaki-Nishi, Kita-ku, Osaka,
530-8323 Japan

Tel; 81-6-6374-9304 Fax; 81-6-6373-4380

E-mail; kankyo@daikin.co.jp

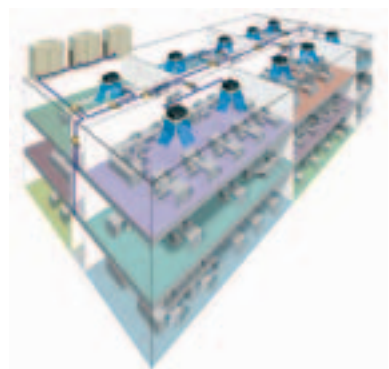
URL; <http://www.daikin.co.jp>

Category:

- A1. Global Warming
- B5. Energy Saving

To respond precisely to customer needs, a lineup of outdoor units is available with power ranging from 5 to 48 HP. Up to 40* indoor units can be individually controlled in a single refrigerant piping system. The system also can air condition each room individually, which is ideal for the constantly changing occupancy of a typical building.

*Using 48 HP outdoor unit.



Products/Model :
VRV II Series

Eco-products No.361

Machines and Equipments

Air conditioners

High performance, energy-saving air conditioner

DAIKIN INDUSTRIES, LTD.

Umeda Center Bldg., 2-4-12, Nakazaki-Nishi, Kita-ku, Osaka,
530-8323 Japan

Tel; 81-6-6374-9304 Fax; 81-6-6373-4380

E-mail; kankyo@daikin.co.jp

URL; <http://www.daikin.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption

<A special version of the VRV II for small offices and shops>

Daikin have remodeled the acclaimed VRV II system aiming to provide the precise power and compactness required by small offices and shops.



Products/Model :
VRV II-S Series

Eco-products No.362

Machines and Equipments

Air conditioners

High performance, energy-saving air conditioner

DAIKIN INDUSTRIES, LTD.

Umeda Center Bldg., 2-4-12, Nakazaki-Nishi, Kita-ku, Osaka,
530-8323 Japan

Tel; 81-6-6374-9304 Fax; 81-6-6373-4380

E-mail; kankyo@daikin.co.jp

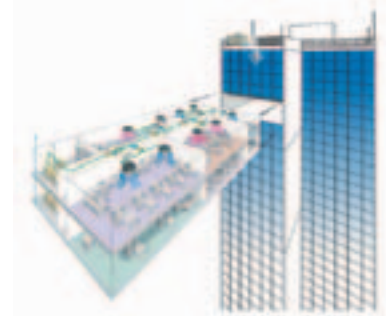
URL; <http://www.daikin.co.jp>

Category:

- A1. Global Warming
- B5. Energy Saving

A water cooled intelligent individual air conditioning system suitable for tall multistoried buildings.

Water cooled VRV II is an individual air conditioning system that utilizes water as a heat source. In this unique system, water is piped from a cooling tower or boiler to the VRV-WII (which is the equivalent of the outdoor unit of an air cooled conditioning system) and after heat exchange, refrigerant is piped from the VRV-WII to each indoor unit.



Products/Model :
VRV-WII

Eco-products No.363

Machines and Equipments

Air conditioning and household equipment

Freezing/refrigerating/air-conditioning system

DAIKIN INDUSTRIES, LTD.

Umeda Center Bldg., 2-4-12, Nakazaki-Nishi, Kita-ku, Osaka, 530-8323 Japan

Tel; 81-6-6374-9304 Fax; 81-6-6373-4380

E-mail; kankyo@daikin.co.jp

URL; <http://www.daikin.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving

This system achieves an energy reduction for convenience stores by integrating the freezer and refrigeration showcases with an air-conditioning system. It achieves a 50% reduction in annual energy consumption compared with existing systems by using exhausted heat from freezing, refrigerating, and air-conditioning into one system provides resource-savings.



Products/Model :
CONVENI-PACK

Eco-products No.364

Machines and Equipments

Medical X-ray equipment

Environmentally conscious X-ray CT Systems for medical institution

TOSHIBA MEDICAL SYSTEMS CORPORATION

1385, Shimoishigami, Otawara-Shi, Tochigi, 324-8550 Japan

Tel; Fax;

E-mail;

URL; <http://www.toshiba-medical.co.jp/tmd/>

Category:

- A4. Waste
- B3. Resource Saving
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

Our company works hard to provide medical instruments of "friendly to human, also friendly to the environment" to the people in the world. As for X-ray computed tomography system "TSX-101A", a new unit, a new user-interface and a new image-reconstruction method were developed. Thereby, machine time per person for the inspection has been reduced to less than half in comparison with that of the previous system. Power consumption per function and machine weight were also reduced to 50%, respectively. Furthermore, we are developing new medical software in order to reduce the exposure of body to X-ray.



Products/Model :
X-ray CT Systems Aquilion(TSX-101A)

Eco-products No.365

Machines and Equipments

Medical electronic instrument and equipment

Magneto cardiograph System MC-6400

Hitachi High-Technologies Corporation

1-24-14 Nishi-Shinbashi, Minato-ku, Tokyo, 105-0003 Japan

Tel; 81-3-3504-7211 Fax;

E-mail; contact@nst.hitachi-hitec.com

URL; http://www.hitachi-hitec.com/science/medical/mc_6400.html (Japanese)

Category:

- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving

This device safely examines heart activity without using X-rays, ultrasound or strong magnetic fields. By improving insulation to reduce helium evaporation, we have achieved a 50% reduction over earlier models in the amount of liquid helium required to cool the superconducting sensors, which accounts for the majority of running costs. Size and mass of the system were also reduced by 41% and 12% respectively.



Products/Model :

Hitachi High-Technologies Corporation MC-6400

Eco-products No.366

Machines and Equipments

Electro acoustic transducers, magnetic heads and small motors

Super low Wow & Flutter brushless DC motor for business machine

Nihon Servo, Ltd.

7 Kanda-Mitoshiro-cho, Chiyoda-ku, Tokyo, 101-0053 Japan

Tel; Fax;

E-mail;

URL; <http://www.japanservo.jp/>

Category:

- A5. Resource Consumption
- B4. Higher Quality
- B5. Energy Saving

High-density windings with Multi-piece Stator Core makes Miniaturization & High Efficiency. High density windings with Multi-piece Stator Core produces ; Reduce volume 25% Reduce copper loss 20% Improve radiation of heat 50% Ten poles & Twelve slots structure produces ; 0.05% wow & flutter at 2000r/min.



Products/Model :

DC motor

Eco-products No.367

Machines and Equipments

Marine engines

Environmental-friendly large two-stroke diesel engine ME/ME-C

KAWASAKI HEAVY INDUSTRIES, LTD.

1-1, Higashikawasaki-cho, 3-chome, Chuo-ku, Kobe, 650-8670 Japan

Tel; +81-78-682-5340 Fax; +81-78-682-5558

E-mail; yoshida_taka@khi.co.jp

URL; <http://www.khi.co.jp/>

Category:

- A1. Global Warming
- A2. Air Pollution
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

This next generation computerized diesel engine enabled flexible control according to the situation by changing the control method of fuel injection, opening and closing of exhaust valve, and cylinder lubricating oil injection from conventional mechanical control to electronic control. This reduced NO_x emission discharged during a sailing in port area as well as fuel consumption and CO₂ emission during an ocean voyage. Besides, it enabled to cut down on oil consumption and control the emission of particulate matter.



Products/Model :

KAWASAKI MAN B&W 7S60ME-C Engine

Eco-products No.368

Machines and Equipments

Marine engines

Ecological Marine Propulsion UEC Eco-Engine

Mitsubishi Heavy Industries, Ltd.

16-5 Konan 2-chome, Minato-ku, Tokyo 108-8215 Japan

Tel; 81-3-6716-3951 Fax; 81-3-6716-5779

E-mail; san-ene-catalog-senyo@mhi.co.jp

URL; <http://www.mhi.co.jp>

Category:

- A1. Global Warming
- B2. Longevity
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

UEC Eco-Engine is an engine for 21st century, with further improved environmental performance. For example, it reduces NO_x emission by 15% and smoke emission also, keep the advantages of conventional UEC engines. Electronic control of fuel injection, exhaust valve, starting and cylinder lubricating systems substantially improves operational cost by reducing fuel oil and cylinder lubricating oil consumption. It also realizes higher reliability.



Products/Model :

UEC Eco-Engine

Eco-products No.369

Machines and Equipments

Gas Chromatograph

GC-2014, energy-saving type high-performance Gas Chromatograph

Shimadzu Corporation

1, Nishinokyo-kuwabara-cho, Nakagyo-ku, Kyoto, 604-8511 Japan

Tel; 81-75-823-1113 Fax; 81-75-823-2062

E-mail; kksitu@group.shimadzu.co.jp

URL; <http://www.shimadzu.co.jp>

Category:

- A1. Global Warming
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"GC-2014" is a gas chromatograph considering high performance and environmental loading. By the following improvement: (a) use of a transformer-less switching power supply, (b) miniturization of parts by using high performance, high-density integrated circuit, and (c) decrease in the number of parts, the energy consumption in the stand-by condition reduced by 68% of that for the previous-type apparatus.



Products/Model :
Gas Chromatograph GC-2014

Eco-products No.370

Machines and Equipments

Diagnostic Ultrasound Systems

Environmentally conscious Ultrasound System for medical institution

TOSHIBA MEDICAL SYSTEMS CORPORATION

1385, Shimoishigami, Otawara-Shi, Tochigi, 324-8550 Japan

Tel; Fax;

E-mail;

URL; <http://www.toshiba-medical.co.jp/tmd/>

Category:

- A4. Waste
- B3. Resource Saving
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

Our company works hard to provide medical instruments of "friendly to human, also friendly to the environment" to the people in the world. As for our diagnostic ultrasound system "XARIO", a 33% saving of the resources has been achieved by means of the large-scale FPGA, the structural design and the consolidation of functions. In addition, the reduction of environmental hazard substances has been conducted; for example, disuse of polyvinyl chloride-make cover and use of Pb-free solder, etc. We also succeeded to reduce 33% of the power consumption per function by the use of a high-speed CPU and the reduction of starting time.



Products/Model :
Diagnostic Ultrasound System Xario(SSA-660A)

Eco-products No.371

Machines and Equipments

Magnetic Resonance Imaging Systems

Environmentally conscious MRI Systems for medical institution

TOSHIBA MEDICAL SYSTEMS CORPORATION

1385, Shimoishigami, Otawara-Shi, Tochigi, 324-8550 Japan

Tel; Fax;

E-mail;

URL; <http://www.toshiba-medical.co.jp/tmd/>

Category:

- A4. Waste
- B3. Resource Saving
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

Our company works hard to provide medical instruments of "friendly to human, also friendly to the environment" to the people in the world. As for magnetic resonance imaging system "MRT-2003", 56% is reduced for the weight per function by developing a short-axis magnet and a moving bed. The power consumption per function was reduced to 58% of that of the previous system by applying the high-speed photographing technique, the optimization design and so on. Furthermore, the decrease of the wastes has been promoted by the reuse of the spare parts and by the extension of parts life. The reduction of the environmental hazard substance is also being carried out; for example, 20% of weight reduction of the FRP-making bed cover was achieved. Moreover, in order to suppress a great deal of machine noise during the inspection, an original noise-suppressor was developed. It can remove 90% of the noise to the patient. With "the sensation of opening" given by the shortened axis, the decrease of the machine noise will help the patient relax.



Products/Model :

MRI Systems Vantage(MRT-2003)

Eco-products No.372

Machines and Equipments

Pollution measuring instruments

Laser Gas Detector can quickly and remotely detect only methane

Anritsu Corporation

1800 Onna, Atsugi-shi, Kanagawa, 243-8555 Japan

Tel; 81-46-223-1111 Fax;

E-mail;

URL; <http://www.anritsu.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Easy, accurate methane gas detection and gas density measurements are now possible anywhere. By simply directing the laser beam at the point to be inspected, methane gas can be detected instantly and its density precisely measured. Measurement status is displayed on the LCD in graph form for easy comprehension. This data can be edited and saved to a PC via an SD card. The two-cabinet configuration (optical and measuring units) of the previous model has been integrated into single-cabinet construction. This, plus the newly developed compact laser diode unit, makes this detector compact and lightweight. Moreover, the circuits have been simplified, and a more adequate-sized FPGA (Field Programmable Gate Array) has been employed to substantially reduce the number of circuit components. The result is a smaller, lighter, more effective detector with lower power consumption. Volume: Reduced by 60%, Mass: Reduced by 53%, Power consumption: Reduced by 72% (Conventional product ratio)



Products/Model :

Laser Gas Detector SA3C15A

Eco-products No.373

Machines and Equipments

Measuring instruments, parts, attachments and accessories, n.e.c.

Signalling Tester offers the solution for mobile UE application

Anritsu Corporation

1800 Onna, Atsugi-shi, Kanagawa, 243-8555 Japan

Tel; 81-46-223-1111 Fax;

E-mail;

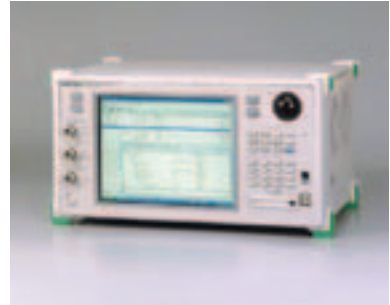
URL; <http://www.anritsu.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

This tester serves as a mobile communication network simulator for the development of mobile communication terminals, enabling application engineers to simulate various call-connection status and service environments from the desk. Compact PC board design reduces the number of circuits in the radio unit and interface specifications of hardware units are common. This enables to freely integrate components regardless of unit's plugging positions in the main unit, and secures a good space utility. These efforts lead to realize compactness, lightweight and low power consumption of the main unit.

Volume: Reduced by 60%, Mass: Reduced by 51%, Power consumption: Reduced by 47% (Conventional product ratio)



Products/Model :

Signalling Tester MD8470A

Eco-products No.374

Machines and Equipments

Measuring instruments, parts, attachments and accessories, n.e.c.

Vector Signal Generator supports digital modulation of signals

Anritsu Corporation

1800 Onna, Atsugi-shi, Kanagawa, 243-8555 Japan

Tel; 81-46-223-1111 Fax;

E-mail;

URL; <http://www.anritsu.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Vector Signal Generator provides superb accuracy and world-class internal modulation bandwidth, to support the development from R&D through production of wireless communications equipment that is rapidly increasing in speed, capacity and bandwidth size. Accounting for most of its weight, the cabinet and RF unit have been redesigned. Moreover, the reduced circuit size facilitates higher performance while reducing weight and power consumption.

Mass: Reduced by 40%, Power consumption: Reduced by 33% (Conventional product ratio)



Products/Model :

Vector Signal Generator MG3700A

Eco-products No.375

Machines and Equipments

Measuring instruments, parts, attachments and accessories, n.e.c.

Access Master is a compact and high-cost-performance OTDR

Anritsu Corporation

1800 Onna, Atsugi-shi, Kanagawa, 243-8555 Japan

Tel; 81-46-223-1111 Fax;

E-mail;

URL; <http://www.anritsu.co.jp>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

A single MT9080x unit provides the optical and IP measuring functions required for installation and maintenance of optical access cables. Five functions-OTDR (Optical Time Domain Reflectometer), light source for fiber identification, power meter, visible radiation (optional), and IP network connection confirmation (optional) - are incorporated into its compact body, weighing only 2.2 kg. The compact, lightweight design is the result of simplifying the overall structure and reducing the circuits by reexamining their components and employing high-efficiency components, thereby providing the added benefit of reduced power consumption. Volume: Reduced by 35%, Mass: Reduced by 41%, Power consumption: Reduced by 43% (Conventional product ratio)



Products/Model :

Access Master MT9080 Series

Eco-products No.376

Machines and Equipments

Waste management service, Energy recover

JFE woody biomass gasification system

JFE Engineering Corporation

1-1-2, Marunouchi, Chiyoda-ku, Tokyo, 100-0005 Japan

Tel; 81-3-3217-3912 Fax; 81-3-3124-9650

E-mail;

URL; <http://www.jfe-eng.co.jp/>

Category:

- A1. Global Warming
- A4. Waste
- B1. Recyclability
- B5. Energy Saving

Sending hot air into the upper layer of an incinerator effectively can create and maintain a stable flame just above the garbage layer and obtain ideal combustion, coming off a significant reduction in the amount of exhaust gas. By combining an incinerator and ash handling system, energy efficiency is improved by exploiting the heat of ash and recovering waste heat generated in an ashhandling furnace. Incinerated ash is molded to slag that can be used for base course material and aggregate.



Eco-products No.377

Machines and Equipments

Waste management service, Energy recover

Hyper 21 Stoker System

JFE Engineering Corporation

1-1-2, Marunouchi, Chiyoda-ku, Tokyo, 100-0005 Japan

Tel; 81-3-3217-3912 Fax; 81-3-3124-9650

E-mail;

URL; <http://www.jfe-eng.co.jp/>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- A4. Waste
- B1. Recyclability
- B4. Higher Quality

1. Reduced exhaust gas (leading to reduced equipment size) : 30% decrease
2. Reduced NOx: 20% decrease
3. Reduced dioxins: Concentrations at boiler exit: 50% decrease, Concentrations at stack exit: less than 0.01ng-TEQ/Nm3 Total dioxin emissions: less than 0.5g-TEQ/ton of waste
4. Reduced operating cost: 30% decrease
5. Increased electrical power surplus (for sale) : 20% increase
6. Reduced landfill: substantial decrease



Eco-products No.378

Machines and Equipments

Waste management service, Energy recover

JFE Gas Clean DX

JFE Engineering Corporation

1-1-2, Marunouchi, Chiyoda-ku, Tokyo, 100-0005 Japan

Tel; 81-3-3217-3912 Fax; 81-3-3124-9650

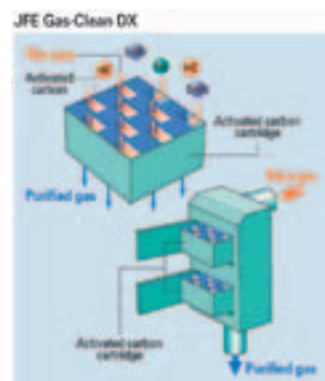
E-mail;

URL; <http://www.jfe-eng.co.jp/>

Category:

- A3. Hazardous Substances
- A4. Waste
- B4. Higher Quality
- B6. Environmental Purification
- C6. End-of-Life

JFE Gas-Clean DX uses a cross-flow method in which the flue gas and activated carbon are placed in contact in a bed-shaped cartridge filled with granular activated carbon, which has an excellent thermal conduction property. This substantially improves contact efficiency with the activated carbon, making it possible to reduce the installation area to less than 1/5 that with the conventional technology while maintaining the same removal performance. Because the system does not have a drive section, there is no danger of fire, greatly improving routine operation and maintenance work and allowing worry-free use.



Eco-products No.379

Machines and Equipments

Waste management service, Energy recover

JFE-Bigadan biogas system

JFE Engineering Corporation

1-1-2, Marunouchi, Chiyoda-ku, Tokyo, 100-0005 Japan

Tel; 81-3-3217-3912 Fax; 81-3-3124-9650

E-mail;

URL; <http://www.jfe-eng.co.jp/>

Category:

- A1. Global Warming
- A4. Waste
- B1. Recyclability
- B4. Higher Quality
- B5. Energy Saving

JFE Engineering developed the "BIGADAN Process Biogas System", which recovers biogas from organic waste such as livestock and food waste. Because organic waste is sterilized at 70degree C for 1 hour (100% pasteurization) before methane fermentation, the discharge can be used safely as liquefied fertilizer. If the digested liquid is to be dewatered and the solid portion composted, the product is adequately sterilized in the heat exchanger and can be used safely without separate high temperature sterilization.



Eco-products No.380

Machines and Equipments

Energy system

Commercial-use gas engine co-generation system

Tokyo Gas Co., Ltd

1-5-20 Kaigan, Minato, Tokyo, 105-0022 Japan

Tel; 81-3-5400-7671 Fax; 81-3-3432-5509

E-mail; ichiro@tokyo-gas.co.jp

URL; <http://www.tokyo-gas.co.jp/>

Category:

- A1. Global Warming
- A2. Air Pollution
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving

Gas co-generation systems efficiently extract electrical and thermal energy from city gas and attain a high total energy efficiency. The high total efficiency of the systems helps to curtail CO₂ emissions and contributes to the customer's economic efficiency. This is a landmark commercial-use model of the smallest size in Japan, and was developed to facilitate the use of such systems in a wider range of fields. Customers using this system can greatly reduce their energy costs by lowering their purchase of utility power and city gas charges for boilers. With a total efficiency of at least 80% (a rate that could only be attained with cogeneration) and its effective use of energy, the system reduces CO₂ emissions to about two-third of the conventional level, and therefore has been given high ratings in the environmental aspect as well. Because the model is compact, it does not take up much space. In addition, it does not require a high initial investment. These features are behind the spread of easy use among many customers.



Eco-products No.381

Machines and Equipments

Energy system

New refrigerant high-efficiency gas heat pump

Tokyo Gas Co., Ltd

1-5-20 Kaigan, Minato, Tokyo, 105-0022 Japan

Tel; 81-3-5400-7671 Fax; 81-3-3432-5509

E-mail; ichiro@tokyo-gas.co.jp

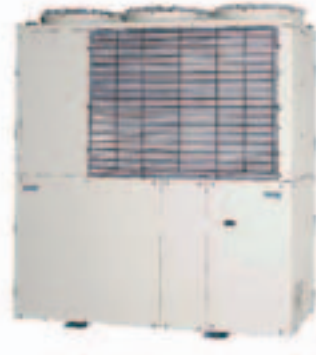
URL; <http://www.tokyo-gas.co.jp/>

Category:

- A1. Global Warming
- A2. Air Pollution
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving

Our company developed a new refrigerant high-efficiency gas heat pump together with equipment manufacturers and commenced sales of it in April 2005. The COP* was increased by 15% relative to that of the conventional equipment and is on the order of 1.5 (the average of the cooling and heating modes), the highest level in the field. The product therefore offers its customers a lower running cost and a higher energy-saving merit. Concern for the global environment is further evidenced by the utilization of refrigerants that do not deplete the ozone layer.

*COP; Coefficient Of Performance. A higher COP indicates a higher efficiency.



Eco-products No.382

Machines and Equipments

Wind power generation system

Omni-directional and hybrid wind power generation system using wind and solar energy

TOSHIBA PLANT SYSTEMS & SERVICES CORPORATION

36-5, Tsurumichuo 4-chome, Tsurumi-Ku, Yokohama, 230-8691 Japan

Tel; 81-45-500-7354 Fax; 81-45-500-7359

E-mail;

URL; <http://www.toshiba-tpsc.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving

The EWF-400 wind turbine can produce 400W of electricity at 12m of the specified wind speed. The annual average of the wind speed is 4m in Kanto area, so the generation of 20 to 30W can be expected. In order to catch the change of wind direction smoothly, the vertical-shaft wind turbine is adopted. The generation system is equipped with a double brake system which consists of an electrical brake and a mechanical brake. The former works with the regenerative braking power and the latter prevents an abrupt increase of the rotation when the blades of wind turbine are exposed to gust of wind. Furthermore, supposing an emergent case in which the electrical control function doesn't work, a fail-safe mechanism (centrifugal trigger, the Patent of our company) is equipped. In order to enhance the reliability of the generation system, it was equipped with an 110W solar cell. When its battery is full-charged, it can provide the electricity to light a 15W bulb for 8 hours everyday during 5 days, under the conditions of no sunshine and no wind.



Products/Model :

WIND FLOWER EWF-400

Eco-products No.383

Machines and Equipments

Hydro-power generation system

Small-scale hydro-power generation system Hydro - eKIDS™ using renewable energy

TOSHIBA PLANT SYSTEMS & SERVICES CORPORATION

36-5, Tsurumichuo 4-chome, Tsurumi-Ku, Yokohama, 230-8691 Japan

Tel; 81-45-500-7342 Fax; 81-45-500-7599

E-mail;

URL; <http://www.toshiba-tpsc.co.jp>

Category:

- A1. Global Warming
- A2. Air Pollution
- A5. Resource Consumption
- B3. Resource Saving
- B5. Energy Saving

Five kinds of the standard unit (S3, S3C, SS, S, M, and L) are available. Their outputs are 1 ~ 200kW depending on the flow rate of 0.3 ~ 3.5m³/s and the head drop of 2 ~ 15m. The feature of the standard unit is easy installation, small space and simple structure of pipe-in type. In comparison with large-scale power systems, the running cost is cheap and the service life is long. The standard unit is therefore economical when used in the long run. Although the major power system is operated by using fossil fuel, our unit is derived with renewable hydro-energy. So, the emission of CO₂-gas is almost neglected and the consumption of resources is significantly suppressed. Moreover, our unit do not need a large-scale barrage or a dam that gives a negative environmental impact. The merit of a small-scale system like this is to use various water sources: the water and sewage, the water for agricultural use, the water for industrial use, the industrial waste water and the river maintenance and discharge. The system is useful as a dispersed power source and it can contribute to the reduction of the green house gas and also to the energy-saving.



Products/Model :
Hydro-eKIDS S type

Eco-products No.384

Machines and Equipments

Photovoltaic Module

Multi-crystalline Photovoltaic Module, the highest efficiency

SHARP CORPORATION

22-22, Nagaike-cho, Abeno-ku, Osaka, 545-8522 JAPAN

Tel; 81-6-6625-0438 Fax; 81-6-6628-1653

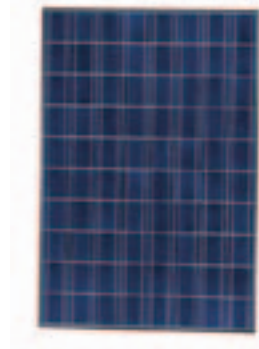
E-mail; morishita.masaaki@sharp.co.jp

URL; <http://www.sharp.co.jp>

Category:

- B1. Recyclability
- B2. Longevity
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving

This module realizes the world's highest conversion efficiency for multi-crystalline (15.8%) by reducing reflection on the surface as well as making high density by our own production technology. This module generates more electricity per module than our current model (EN-142AN). It means that about 7% more output is achieved when occupying the same area. This means modules can be designed to meet customer requirements where limited roof space is available.



Products/Model :
Photovoltaic Module NE-152AR

Eco-products No.385

Machines and Equipments

Photovoltaic Module

Photovoltaic Module

SHARP CORPORATION

22-22,Nagaike-cho,Abeno-ku,Osaka,545-8522 JAPAN

Tel; 81-6-6625-0438 Fax; 81-6-6628-1653

E-mail; morishita.masaaki@sharp.co.jp

URL; <http://www.sharp.co.jp>

Category:

- B1. Recyclability
- B2. Longevity
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving

This module realizes high output as well as having much harmonized design with roof by employing dark-blue cell which is coated with our own technology. This module increases output by about 1.2% compared with our current module ND-155AP.



Products/Model :
Photovoltaic Module

Eco-products No.386

Machines and Equipments

Mills and separators

Water-saving irrigation system using ceramic pipes

G&F Corporation

18-22,Shimomaruko 2-chome, Ohtaku, Tokyo, 146-0092 Japan

Tel; 81-3-5482-9887 Fax; 81-3-3750-7853

E-mail; info@gaf.co.jp

URL;

Category:

- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- B6. Environmental Purification
- C4. Product Manufactures

This is a kind of subsurface irrigation system that uses water-permiable porousceramic pipes. Major advantages of this system ara as follows:

1. Minimum water consumption (maximum water use productivity)
Only about 10% of water is enough in our system comparing to ordinary methods.
2. Storage of rain water (water harvesting) The excess rain water infiltrating into the soil can be transfered to a watersupply tank through the porous ceramic pipes.
3. Preventin of soil's salinization (prevention of desertification)
In our system, there is no evaporation from the surface and this means nosalinization occures and desertification can be prevented.



Eco-products No.387

Machines and Equipments

Grinding Swarf Briquetting Equipment

Grinding Swarf Briquetting Equipment

NTN Corporation

1-3-17 Kyomachibori, Nishi-ku, Osaka, 550-0003 Japan

Tel; 81-6-6443-5001 Fax;

E-mail;

URL; <http://www.ntn.co.jp/>

Category:

- A4. Waste
- B3. Resource Saving
- C6. End-of-Life

This system can compress sludge generated in the grinding process, separate solids from liquid, recycle its metal element to steel making materials and reuse filtered grinding fluid. The equipment (1/3rd smaller than conventional products) has equipment characteristics such as elimination of binder and other additives for solidification of oil-based grinding sludge. The system reduces waste treatment cost.



Products/Model :
Grinding swarf briquetting equipment

Eco-products No.388

Others

Elemental feeds

Feed grade L-Lysine

AJINOMOTO CO., INC.

15-1, KYOBASHI 1-CHOME, CHUO-KU, TOKYO, 104-8315 JAPAN

Tel; 81-3-5250-8140 Fax; 81-3-5250-8270

E-mail; izuru_shinzato@ajinomoto.com

URL; <http://www.ajinomoto.com/aan>

Category:

- A3. Hazardous Substances
- A4. Waste
- B4. Higher Quality
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

Feeds for livestock animals are mainly composed of vegetable ingredients such as corn, wheat, and soybean meal. Most proteins in such vegetable ingredients do not necessarily have the optimal amino acid profile for muscle protein synthesis by animals. The insufficient supply of a certain amino acid may lead not only to inferior growth but also to increased excretion of nitrogen to the environment because of less efficient utilization of amino acids for protein synthesis and the subsequent enhancement in catabolism of amino acids. Supplementation of L-lysine, which is in general the 1st limiting amino acid in pigs and the 2nd limiting in chickens, can contribute to the reduction of nitrogen excretion from animals to the environment by improving dietary amino acid balance and consequently by improving amino acid utilization efficiency. In addition, because the usage of L-lysine in the feeds can sustain the ideal growth of animals with a less amount of feeds, it helps save the land area for feed crop production.



Products/Model :
L-Lysine Monohydrochloride Feed Grade

Eco-products No.389

Others

Organic fertilizers

AKIPOST ; new organic fertilizer, useful for soil improvement

Uenodai htaihiseisan kyoudoukumiai

Gosyono Yumoto 2-1-5 Akita City Akita prefecture 010-1415 Japan

Tel; 81-18-826-1616 Fax; 81-18-826-1565

E-mail; AEJ02146@nifty.com

URL;

Category:

- A4. Waste
- B1. Recyclability

This fertilizer is prepared from the sewer sludge discharged from sewage plants in the city, by the fermentation initiated by microorganism. In general, the soil suitable for growing plants satisfies the following conditions: (1) high permeability for gas and water and large holding capacity for water, (2) ability of buffering the sudden pH-change caused by acid rain, (3) resistance to prevent the draining away of fertilizer, and (4) the presence of microorganisms. Recent agriculture may or may not need the chemical fertilizer and the agricultural chemicals. Care must be taken to avoid the excess use of them. We recommend the use of high-quality organic fertilizer to get the good quality of the agricultural soil. The use of "AKIPOST" over long years will increase the amount of microorganism and change the poor soil to the rich one. The agriculture of the twenty-one century is shifting to the age of the microorganisms from the age of the chemical fertilizer and agricultural chemicals.



Products/Model :

AKIPOST

Eco-products No.390

Others

Wallcovering

TOMITA ECO STD, anti-sick-building-syndrome wallcovering

tomita & co., ltd.

2-3-16, kyobashi, chuo-ku, tokyo, 104-0031 Japan

Tel; 81-3-3273-7555 Fax; 81-3-3273-7577

E-mail; info@tominet.co.jp

URL; <http://www.tominet.co.jp>

Category:

- A3. Hazardous Substances
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

TOMITA ECO STANDARD collection does not use, as law material, any kind of 13 substance (formaldehyde, acetaldehyde, toluene, xylenes, para-di-chlorobenzene, ethylbenzene, styrene, tetradecan, chloropyriphos, phtalic-acid-di-butyl, phtalic-acid-di-2ethylhexyl, diazine and phenolcarbu), designated in the guideline for indoor air pollution by the Japanese Ministry of Health, Labor and Welfare. Besides, the wallcovering is anti-sick-building-syndrome and the collection contains wallcovering in which remnant of VOC (Volatile Organic Compound) is largely reduced by minimizing other VOC component. TOMITA ECO STANDARD collection is composed of 62 SKUs of 7 kind of material such as vinyl, olefines, bamboo pulp etc. rich in design and function.



Products/Model :

Sample Book of TOMITA ECO STANDARD

Eco-products No.391

Others

Relief (anastatic) printing

"Haguresu": resource-saving label material without pasteboard

SASAKI PRINTING CO., LTD.

91, Sekine Kuchinaicho Kitakami-shi Iwate 024-0211 JAPAN

Tel; 81-1-9769-2111 Fax; 81-1-9769-2126

E-mail; ssk98@cocoa.ocn.ne.jp

URL; <http://www.vijp.net/ssk/>

Category:

- A4. Waste
- A5. Resource Consumption
- B3. Resource Saving
- B4. Higher Quality
- C5. Product Use, Maintenance and Repair

"Haguresu" label has been patented and two kinds of products, the lamination type and the roll type, are available. The label has no pasteboard, suggesting the savings of resource and disposal cost. Raw material of the label is 100% used paper and that of the ink is soybeans. Since the label is writable-type, it has been used by many municipal governments (warning label to the violating waste) and by distribution companies (dispatch label).



Eco-products No.392

Others

Relief (anastatic) printing

"Saika-label" (a new proposal to the safety of food)

SASAKI PRINTING CO., LTD.

91, Sekine Kuchinaicho Kitakami-shi Iwate 024-0211 JAPAN

Tel; 81-1-9769-2111 Fax; 81-1-9769-2126

E-mail; ssk98@cocoa.ocn.ne.jp

URL; <http://www.vijp.net/ssk/>

Category:

- A3. Hazardous Substances
- A5. Resource Consumption
- B4. Higher Quality
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair

In recent years, the consumer's interest to the safety of food is year by year increasing. A label material for vegetables and fruits is "Saika label", which can be directly attached to the surface of food. Since the common adhesives of label materials are made from petroleum, we have developed a new adhesive of rubber and applied to "Saika-label". The new adhesive is basing on the FDA specifications of USA, and satisfies the No.20 item of the food hygiene law. Since the "Saika-label" is possible to stick directly to vegetables and fruits, the packaging materials become useless and the amount of inflammable waste is reduced. Moreover, by attaching the label, the traceability of vegetables and fruits (personal history of the products) can be managed.



Eco-products No.393

Others

Fertilizer

Salt-tolerance High-performance Fertilizer containing ALA

COSMO OIL CO., LTD. and COSMO SEIWA AGRICULTURE CO., LTD

Toshiba Bldg., 1-1, Shibaura 1-chome, Minato-ku, Tokyo, 180-8750 Japan
Tel; 81-3-3798-349 Fax; 81-3-3798-3430

E-mail; ala_info@cosmo-oil.co.jp

URL; <http://www.cosmo-oil.co.jp> <http://www.pentakeep.com>

<http://www.cosmosewaagriculture.co.jp/>

Category:

- A1. Global Warming
- B2. Longevity
- B3. Resource Saving
- B4. Higher Quality
- B6. Environmental Purification

PENTAKEEP-V is the only fertilizer in the world that contains ALA. ALA is known to have the following physiological characteristics, making it relevant to environmental fields as well as agriculture.

- 1) ALA promotes plant absorption of fertilizer, so it is expected to lead to the best use of resource and protect against environmental contamination from run-off.
- 2) ALA promotes plant photosynthesis. Its carbon dioxide fixation is expected to contribute to protection of global warming.
- 3) ALA improves salt tolerance. It is expected to contribute to the greening of deserts and alkali soil.



Products/Model :

PENTAKEEP-V ; High-performance Fertilizer

Eco-products No.394

Others

Medical products preparations, including preparations outside medicines

High-Calorie Infusion Solution with Total Vitamins

TANABE SEIYAKU and TERUMO Corporation

2-10, Doshomachi 3-chome, Chuo-ku, Osaka, 541-8505 Japan

Tel; 81-6-6205-5555 Fax; 81-6-6205-5262

E-mail; kankyoku@tanabe.co.jp

URL; <http://www.tanabe.co.jp>, <http://www.terumo.co.jp>

Category:

- A1. Global Warming
- A4. Waste
- A5. Resource Consumption
- C3. Design and Material selection
- C6. End-of-Life

Tanabe Seiyaku and Terumo jointly developed "High calorie infusion solution" to be able to mix the medicine by integrating by supplying a necessary nutrient and the vitamin to the soft bag divided into three rooms according to those stabilities, and opening the partition of each room easily when using it. This product is a fluid infusion medicine for the patient who cannot replenish enough nourishment from the mouth such as after it operates. This product as waste did not generate baial empty bottle of the injection syringe and the vitamin preparation that had been used when mixing it so far. In addition, the necessity of the refrigeration preservation and the chilled transport was lost, and it led to energy conservation at distribution and the preservation stage and the reductions in carbon-dioxide emissions. On the other hand, it was possible to contribute also to a social contribution as the medicine manufacture enterprises of handiness of the malpractice prevention and work by the mixing forgetting of the vitamin, bacilli when mixing it, and dangerous evasion etc. of the foreign body mixing.



Products/Model :

High Calorie Infusion "Fulcaliq"

Eco-products No.395

Others

Hydraulic Fluid

Hydraulic Fluid that reduces Water and Soil Contamination

Cosmo Oil Lubricants Co., Ltd.

9-25, Shibaura, 4-chome, Minatoku, Tokyo, 108-0023 Japan

Tel; 81-3-3798-3831 Fax; 81-3-3798-3185

E-mail;

URL; <http://www.cosmo-lube.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

COSMO TERRA FLUID Series meets JEA (No.110), and is designed for environmentally sensitive applications.



Products/Model :

COSMO TERRA FLUID E 46.56

Eco-products No.396

Others

Turbine Oil

Turbine Oil for Hydro-generator

Cosmo Oil Lubricants Co., Ltd.

9-25, Shibaura, 4-chome, Minatoku, Tokyo, 108-0023 Japan

Tel; 81-3-3798-3831 Fax; 81-3-3798-3185

E-mail;

URL; <http://www.cosmo-lube.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

COSMO TERRA TURBINE 46 meets JAE (No.110), and is designed for environmentally sensitive applications.



Products/Model :

COSMO TERRA TURBINE 46

Eco-products No.397

Others

Hydraulic Fluid

Hydraulic Fluid for Reducing Power Consumption

Cosmo Oil Lubricants Co., Ltd.

9-25, Shibaura, 4-chome, Minatoku, Tokyo, 108-0023 Japan

Tel; 81-3-3798-3831 Fax; 81-3-3798-3185

E-mail;

URL; <http://www.cosmo-lube.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

Cosmo Super Epec UF is expected to produce energy conservation by matching high-performance base oil with carefully screened additives. In addition, the product from non-zinc series can reduce sludge from the thermal oxidation and can be used for long periods of time.



Products/Model :

COSMO SUPER EPOC UF 46

Eco-products No.398

Others

Grease for Agriculture and Civil Engineering

Grease to reduce Water and Soil Contamination

Cosmo Oil Lubricants Co., Ltd.

9-25, Shibaura, 4-chome, Minatoku, Tokyo, 108-0023 Japan

Tel; 81-3-3798-3831 Fax; 81-3-3798-3185

E-mail;

URL; <http://www.cosmo-lube.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

COSMO TERRA GREASE UR 2 meets JEA (No.110), and is designed for environmentally sensitive applications.



Products/Model :

COSMO TERRA GREASE UR 2

Eco-products No.399

Others

Two Cycle Engine Oil

Two Cycle Engine Oil to reduce Water and Soil Contamination

Cosmo Oil Lubricants Co., Ltd.

9-25, Shibaura, 4-chome, Minatoku, Tokyo, 108-0023 Japan

Tel; 81-3-3798-3831 Fax; 81-3-3798-3185

E-mail;

URL; <http://www.cosmo-lube.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

COSMO TERRA 2 CYCLE meets JEA (No.110), and is designed for environmentally sensitive applications.



Products/Model :
COSMO TERRA 2 CYCLE

Eco-products No.400

Others

Hydraulic Fluid Additives

Hydraulic Fluid Additives for Reducing Industrial Waste

Cosmo Oil Lubricants Co., Ltd.

9-25, Shibaura, 4-chome, Minatoku, Tokyo, 108-0023 Japan

Tel; 81-3-3798-3831 Fax; 81-3-3798-3185

E-mail;

URL; <http://www.cosmo-lube.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B3. Resource Saving
- C6. End-of-Life

The addition of 5% Cosmo Hydro Clean to the hydraulic fluid currently in use allows powerful dispersal of sludge in tanks and pipes and provides more powerful cleaning than complex oil flushing. The additives also reduce emissions of waste oil.



Products/Model :
COSMO HYDRO CLEAN

Eco-products No.401

Others

Diesel Engine Oil

Diesel Engine Oil for PM Reduction System Mounted Vehicle

Cosmo Oil Lubricants Co., Ltd.

9-25, Shibaura, 4-chome, Minatoku, Tokyo, 108-0023 Japan

Tel; 81-3-3798-3831 Fax; 81-3-3798-3185

E-mail;

URL; <http://www.cosmo-lube.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

COSMO ECO-DIESEL KAISEI gives supreme performance in automotive diesel engines with PM reductional assy. Using [KAISEI] is able to get easily, overall cost, oil consumption, used oil disposition.



Products/Model :

COSMO ECO-DIESEL KAISEI

Eco-products No.402

Others

Biodegradable hydraulic oil

"Bio Green Grass" biodegradable hydraulic oil for off-rovers

KUBOTA Corporation

1-2-47 Shikisu-higashi, Naniwa-ku, Osaka, 556-8601 Japan

Tel; 81-6-6648-2111 Fax;

E-mail;

URL; www.kubota.co.jp/index.html

Category:

- A3. Hazardous Substances
- A4. Waste
- B4. Higher Quality
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

This environmentally-friendly oil is degraded by microorganism and will not cause environmental damage if spilled onto grass, soil or into a river following a construction accident. We developed the technology for the world's first hydraulic oil that does not kill the grass. Eco-label certification criteria as biodegradable. It is certified as an Eco-label Product by Japan Environment Association.



Products/Model :

Bio Green Grass

Eco-products No.403

Others

Plastic containers

Recycled Containers with Attractive Appearance and Strength

Sekisui Chemical Co., Ltd.

2-3-17 Toranomon, Minato-ku, Tokyo, 105-0001 Japan

Tel; Fax;

E-mail; kankyo@sekisui.jp

URL; <http://www.sekisui.co.jp/>

Category:

- A5. Resource Consumption
- B1. Recyclability
- B3. Resource Saving
- B7. Usage of Recycled Materials

Plastic containers are often used for in-plant handling of parts and products, as well as for their storage and transportation. However, end-of-life containers are usually disposed of in landfills or by incineration. There are two conventional methods of recycling: 1) pelletizing collected containers for use as molding materials; and 2) mixing the recovered pellets with new materials. However, pelletizing is costly and has product quality and color drawbacks. Relying on a proprietary injection molding method that uses recycled container material for the core layer which is sandwiched by new material layers, Sekisui Recycled Containers provide effective solutions for problems associated with recycling of plastic containers. Features of Sekisui Recycled Containers-Three-layer molding structure in which the recycled container material forms the core layer and is sandwiched by new material layers.

- Color requirements can be met for recycled containers.
- The same quality and strength as 100% new material containers can be maintained.
- Crushed chips of collected containers can be used without pelletizing.
- Recycling can be repeated any number of times.



Eco-products No.404

Others

Carbon and graphite products

Charcoal ob-jet d'art, "Apple"

Apple Studio

46-3, Takasho-mati, Hirosaki-city, Aomori, 036-8271 Japan

Tel; 81-172-32-9793 Fax; 81-172-32-9794

E-mail; applestudio_japan@yahoo.co.jp

URL;

Category:

- A4. Waste
- B1. Recyclability

Charcoal ob-jet d'art, "Apple"; Original handcraft entitled "apple", suitable for the interior of a house. The starting materials are the fruit and twigs that are discharged owing to pruning while growing apple trees. The starting materials were carbonized in a furnace and then arranged to one ornament. Since the natural materials are used, there is no same work. A wooden charcoal ornament like this has not only the atmosphere of Japanese things, but also the power to appeal to human sensitivity. Such an ornament is useful to heal the consumers who live in modern stress society.



Eco-products No.405

Others

Galvanizing and other hot-dip coating

Re-galvanized hot dip zinc-coated ironware

Cycle Inc.

S.G Bld. 2F 2-6-2 Higashi-shinbashi Minato-ku, Tokyo, 105-0021 Japan

Tel; 81-3-5401-3196 Fax; 81-3-5401-3197

E-mail; t-morita@z-cycle.co.jp

URL; <http://www.z-cycle.co.jp>

Category:

- A4. Waste
- B1. Recyclability
- B7. Usage of Recycled Materials
- C4. Product Manufactures
- C6. End-of-Life

Generally, rusty hot dip zinc-coated metal fittings are disposed of as iron scrap. However, we offer recycled products by collecting those rusty metal fittings and re-galvanizing them after exfoliating the surface coat and rust. This recycling reduces the energy used in the production process to about 1/10 of that of new products. In addition, by electrolyzing wastewater from the sulfuric acid used for exfoliation (sulfuric acid with zinc and iron) with an electrolyzer, it is possible to retrieve and reuse the sulfuric acid and zinc.



Products/Model :
regalvanized steels

Eco-products No.406

Others

Machine shops, n.e.c.

AQUONE® Hypolimnetic Aerator for Dams and Lakes

Yokogawa Electric Corporation

9-32, Nakacho 2-chome, Musashino-shi, Tokyo, 180-8750 Japan

Tel; +81-422-52-5617 Fax; +81-422-52-3421

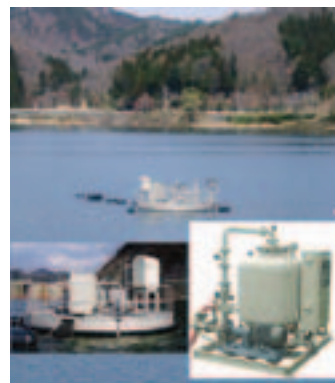
E-mail; water-sales@cs.jp.yokogawa.com

URL; <http://www.yokogawa.com>

Category:

- A5. Resource Consumption
- B2. Longevity
- B4. Higher Quality
- B6. Environmental Purification
- C5. Product Use, Maintenance and Repair

In enclosed water bodies such as dams or lakes, as the sunshine warms the surface water, the temperature (density) difference increases between the surface and bottom waters. This situation creates a hypoxic condition in the bottom layer. The sediment is anaerobically decomposed while nutrients, manganese, arsenic, etc. elute from bottom sludge. This causes deterioration of water quality. AQUONE® gas dissolving system is capable of supplying water with a high concentration of dissolved oxygen content not containing even micro-bubbles. The dissolved oxygen level this system permits is 50 mg/L or higher. In a water body stratified with different temperatures, water tends to diffuse horizontally throughout a layer with the same temperature (density). Our system is based on this property. The system draws oxygen-depleted water from the bottom, dissolves oxygen in high concentrations into water, and then returns oxygen-laden water to the bottom layer. This allows water with high dissolved oxygen level to diffuse in carpet-like manner only throughout the bottom layer or its vicinity where oxygen is needed, and thus efficient supply of oxygen to the bottom is achieved.



Products/Model :
AQUONE® Gas Dissolving System

Eco-products No.407

Others

Digital cameras

EOS 350D DIGITAL: Environmentally conscious design product.

Canon Inc.

30-2, Shimomaruko 3-chome, Ohta-ku, Tokyo, 146-8501 Japan

Tel; 81-3-3758-2111 Fax; 81-3-3758-1160

E-mail;

URL; <http://www.canon.com>

Category:

- A3. Hazardous Substances
- A4. Waste
- B3. Resource Saving
- B4. Higher Quality
- C3. Design and Material selection

Approx. 13% of weight is reduced compared to previous model EOS 300D DIGITAL. EOS 350D DIGITAL weights 485g whereas previous model EOS 300D DIGITAL weights 560g. And also approx. 25% of volume is reduced compared to previous model EOS 300D DIGITAL. EOS 350D DIGITAL is 762.6cm³ (W:126.5mm, H:94.2mm, D:64mm) whereas previous model EOS 300D DIGITAL is 1017.8cm³ (W:142mm, H:99mm, D:72.4mm)



Products/Model :
EOS 350D DIGITAL

Eco-products No.408

Others

Digital cameras

EOS-1D Mark II:A RoHS-compliant digital SLR for professionals

Canon Inc.

30-2, Shimomaruko 3-chome, Ohta-ku, Tokyo, 146-8501 Japan

Tel; 81-3-3758-2111 Fax; 81-3-3758-1160

E-mail;

URL; <http://www.canon.com>

Category:

- A3. Hazardous Substances
- A4. Waste
- B4. Higher Quality
- B6. Environmental Purification
- C3. Design and Material selection

The RoHS Directive concerning the "Limitation of Specific Hazardous Substances contained in Electric and Electro Equipment" will be enforced from July 2006 in the EU. It is intended to restrict and prohibit the use of specific hazardous substances in electric and electro equipment. The EOS-1D Mark II is an eco-friendly product that complies with the RoHS Directive, a European environmental regulation concerning lead/hexavalent chromium/mercury/cadmium/specific bromine flame-retardant materials PBB/PBDE.



Products/Model :
EOS-1D Mark II

Eco-products No.409

Others

Digital cameras

Nikon Digital SLR camera D50

NIKON CORPORATION

Fuji Bldg., 2-3, Marunouchi 3-chome, Chiyoda-ku, Tokyo,
100-8331 Japan
Tel; 81-3-3214-5311 Fax;
E-mail;
URL; <https://www.nikon.co.jp>

Category:

- A3. Hazardous Substances
- B3. Resource Saving
- C2. Material and Components Production
- C3. Design and Material selection
- C6. End-of-Life

A digital SLR camera that enables everyone, even beginners, to take the images he or she wants, quickly and easily. Digital Vari-Program, ideal for family use, allows you to select your desired mode for consistently beautiful photos - the SLR D50 handles every essential setting. The new "Child" mode takes more vibrant pictures of children. Reduced product mass : 23% (160g) less than the prior type D100 Lead-free solder : Used on all circuit boards Hazardous substances (Pb, Cd, Hg, Cr+6, PBB, PBDE) free: Meets RoHS directive of EU Eco-glass (lead & arsenic free optical glass) usage : 100%



Products/Model :

Nikon Digital SLR camera D50

Eco-products No.410

Others

Parts, attachments and accessories of video recording and duplicating equipment

Super-Dynamic III Color Surveillance Camera, Quick installation, Power saving

Panasonic System Solutions Company, Matsushita Electric Industrial Co., Ltd.

4-3-1 Tsunashima-higashi, Kohoku, Yokohama City, 223-8639 Japan
Tel; 81-45-544-3613 Fax;
E-mail;
URL; <http://panasonic.co.jp/pss/>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Super-Dynamic III Color Surveillance Camera:

[Reduced installation time and energy]

Backing focus adjustment can be carried out by moving the image pickup element in the camera to the most desired position through the original Auto Back Focus function. This allows focus to be adjusted roughly at the installation time and reduces the time and energy for focus adjustment to a third, because focus can be fine-tuned with a switch on the camera or a remote controller on final inspection.

[Reduced power consumption]

While functions such as wide dynamic range, high-image resolution, high sensitivity, Auto Back Focus, Scene change detection and Auto image stabilizer functions have been either enhanced or newly added to the previous model, power consumption is kept at no more than that of the previous model.



Products/Model :

WV-CR480/CR484 Series

Eco-products No.411

Others

Radio and TV broadcasting equipment

Memory card recorder P2 System, Energy saving, Hazardous subs., Resource saving

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A5. Resource Consumption
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

New generation system "DVCPRO P2 Series" employing "world's first" semiconductor device in recording medium. The system is capable of rewriting for 30,000 times, degradation or dropout caused by number of use does not occur, and connector of medium is highly durable, so that lifetime of medium is extended significantly compared with recording tape (minimum 100 passes) and it greatly contributes to resource saving and reuse. Heavy use of FPGA/Ultra LSI in promoting digital signal processing has led to reduction of parts quantity and power consumption despite realization of high function. Additionally, we are environmentally conscious by taking measures such as employing lead-free solder in mounting main printed circuit board.



Products/Model :

Memory card recorder P2 System, AJ-SPD850

Eco-products No.412

Others

Radio and TV broadcasting equipment

Memory card Camera recorder P2 System, Energy & Resource saving, Hazardous subs.

Panasonic AVC Networks Company, Matsushita Electric Industrial Co., Ltd.
1-15 Matsuo-cho, Kadoma City, Osaka, 571-8504 Japan
Tel; 81-6-6905-8356 Fax; 81-6-6905-4755
E-mail;
URL; <http://panasonic.co.jp/pavc/>

Category:

- A5. Resource Consumption
- B3. Resource Saving
- B4. Higher Quality
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

New generation system "DVCPRO P2 Series" employing "world's first" semiconductor device in recording medium. The system is capable of rewriting for 30,000 times, degradation or dropout caused by number of use does not occur, and connector of medium is highly durable, so that lifetime of medium is extended significantly compared with recording tape (minimum 100 passes) and it greatly contributes to resource saving and reuse. Heavy use of FPGA/Ultra LSI in promoting digital signal processing has led to reduction of parts quantity and power consumption despite realization of high function. Additionally, we are environmentally conscious by taking measures such as employing lead-free solder in mounting main printed circuit board.



Products/Model :

Memory card Camera recorder P2 Stm, AJ-SPX800

Eco-products No.413

Others

Electric audio equipment

Digital Audio Mixer for Professional

Panasonic System Solutions Company, Matsushita Electric Industrial Co., Ltd.
 4-3-1 Tsunashima-higashi, Kohoku, Yokohama City, 223-8639 Japan
 Tel; 81-45-544-3613 Fax;
 E-mail;
 URL; <http://panasonic.co.jp/pss/>

Category:

- A3. Hazardous Substances
- B3. Resource Saving
- B5. Energy Saving
- C3. Design and Material selection

This is a "System-in-One" digital audio mixer which is integrated sound system components into one unit, such as mixer, equalizer, acoustic feedback suppressor, compressor/limiter, delay, reverb, etc. [Resources and Energy Saving]

Reduction in the number of devices and voltages has been carried out through the switching power supply of all circuits and development of next generation digital signal processing architecture.

- Reduction in the number of printed circuits boards. (14pcs → 7pcs)
- Compact size (capacity reduction 28%)
- Light weight (weight reduction 29%)
- Power consumption (reduction 48%)(Compared to our models of FY2000)

[Green Materials]

- Use of fastening screws and aluminum die-cast made by hexavalent chromium-free chemical treatment
- Chromium-free processed steel for inner chassis
- Use of lead-free solder



Products/Model :

Digital Audio Mixer WR-D40

Eco-products No.414

Others

Parts, attachments and accessories of accespries equipment

Recycled ink cartridge

JIT Co., Ltd

371-7, Toda, Minami Alpus-city, Yamanashi-Prf, 400-0414 Japan
 Tel; 81-55-280-8105 Fax; 81-55-280-8103
 E-mail; jit@olive.ocn.ne.jp
 URL; <http://www.jit-c.co.jp>

Category:

- B1. Recyclability
- B3. Resource Saving
- B7. Usage of Recycled Materials
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

We reclaim used printer cartridges which would otherwise be disposed of. They are collected in boxes from stores and they are then rinsed and refilled with ink for resale as recycled products.



Eco-products No.415

Others

Precision measuring machines and instruments

IPLEX MX, Industrial Video Scope (Endoscope)

OLYMPUS CORPORATION

Shinjuku Monolith, 2-3-1 Nishi-Shinjuku, Shinjuku-ku, Tokyo,
163-0914 Japan
Tel; +81-3-3340-2111 Fax;
E-mail; environ@ot.olympus.co.jp
URL; <http://www.olympus.co.jp/>

Category:

- A3. Hazardous Substances
- B1. Recyclability
- B2. Longevity
- B3. Resource Saving
- B5. Energy Saving

The PLEX MX, the industrial video scope features improved performance and reduced size and weight. It is designed to be a portable observation device for field operations at high altitudes and work sites with limited space.

- ① Use of a White LED as a Lighting Source and Newly Developed Electricity-saving Lithium-ion Batteries with a Longer Product Life: A high intensity/low electricity consumption lamp using the first white LED as a lighting source for industrial video scopes and a newly developed high-capacity lithium-ion battery enabled the IPLEX MX, the industrial video scope to operate for long periods in field operations. Electricity consumption was reduced to about one tenth that of conventional lamps while ensuring a longer lamp and battery life.
- ② Reduced Size and Weight for High Portability: The IPLEX series followed 3 generations of 3R design. The scope and main unit make an all-in-one package. The main unit is about one tenth the size of the first-generation IPLEX and weight, at 4.6 kg, was about one fifth that of the previous model, dramatically saving resources.



Products/Model :
IPLEX MX, Industrial Video Scope

Eco-products No.416

Others

Measuring instruments

The EM-wave absorber which used "wood ceramics" as a loss material

Tokin EMC Engineering Co., Ltd.

398 Shibokuchi, Takatsu-ku, Kawasaki, Kanagawa, 231-0023 Japan
Tel; 81-44-751-5331 Fax; 81-44-751-4975
E-mail;
URL; <http://www.tee.tokin.jp>

Category:

- A5. Resource Consumption
- B1. Recyclability
- B3. Resource Saving
- B7. Usage of Recycled Materials
- C2. Material and Components Production

This EM-wave absorber of a new design using "wood ceramics" which is the saving resources ceramics of the natural origin as a loss material. It has the feature which molded the grain of low-temperature calcination "wood ceramics" by vegetable resin. TEWC-10 are a device for microwave bands. It can crush and can recycle.



Products/Model :
EM-wave absorber TYPE TEWC-10

Eco-products No.417

Others

Medical instruments, apparatus and equipment

EVIS 180 Scope Series, Medical-use Endoscope Video Scopes

OLYMPUS CORPORATION

Shinjuku Monolith, 2-3-1 Nishi-Shinjuku, Shinjuku-ku, Tokyo,
163-0914 Japan
Tel; +81-3-3340-2111 Fax;
E-mail; environ@ot.olympus.co.jp
URL; <http://www.olympus.co.jp/>

Category:

- A3. Hazardous Substances
- A5. Resource Consumption
- B1. Recyclability
- C4. Product Manufactures
- C6. End-of-Life

A medical-use endoscope system consists of a video scope and a main unit that houses a video system (color monitor, video processor and light source system) The video scope exhibits following environmental performance.

- ① Reduction in Hazardous Chemical Substances: Surface treatment using hexavalent chromium as well as lead soldering, both classed as hazardous, have been discontinued during manufacturing.
- ② Use of Eco-glass for Optical Systems: Lead and arsenic-free optical glass (Eco-glass) is used.
- ③ Environmental Impact Assessment by LCA: A lifetime environmental impact assessment of the products, to establish the lifetime environmental load, was conducted using the Olympus Life Cycle Assessment (OLCA) procedure. Note: Only the video scope is certified as an Eco-product.



Products/Model :
EVIS 180 Scope Series

Eco-products No.418

Others

Microscopes and magnifying glasses

SZX7/SZ61, Stereo Microscopes

OLYMPUS CORPORATION

Shinjuku Monolith, 2-3-1 Nishi-Shinjuku, Shinjuku-ku, Tokyo,
163-0914 Japan
Tel; +81-3-3340-2111 Fax;
E-mail; environ@ot.olympus.co.jp
URL; <http://www.olympus.co.jp/>

Category:

- A3. Hazardous Substances
- A5. Resource Consumption
- B1. Recyclability
- B2. Longevity
- B7. Usage of Recycled Materials

- ① Structural Analysis Design Realizing Light Weight and High Rigidity: A rigid light-weight microscope was developed based on the rigidity analysis of basic components such as the brace and its optimal design through 3-dimensional (3D) computer-aided design (CAD) to reduce the size and weight and the number of components to save resources.
- ② Use of Lead-free Glass for Optics: Lead-free glass is used for all types of optical glass such as lenses and prisms.
- ③ Phase-out of Adhesives Improves Separability and Disassembly: The use of adhesives in positioning and fixing frames for optical lenses was discontinued to improve separability and make disassembly easier.
- ④ Environmentally Conscious Design of Accessories: A compact incident-light/transparent lighting unit was developed as an example of electricity-saving accessories using a white LED as the illumination source to cut electricity consumption to one sixth that of conventional lighting units and to realize a product life 12 times longer than conventional products.



Products/Model :
SZX7(L), and SZ61(R)

Eco-products No.419

Others

Microscopes and magnifying glasses

CX21/CX31/CX41, Biological Microscopes

OLYMPUS CORPORATION

Shinjuku Monolith, 2-3-1 Nishi-Shinjuku, Shinjuku-ku, Tokyo,
163-0914 Japan
Tel; +81-3-3340-2111 Fax;
E-mail; environ@ot.olympus.co.jp
URL; <http://www.olympus.co.jp/>

Category:

- A3. Hazardous Substances
- B1. Recyclability
- B2. Longevity
- B3. Resource Saving
- B5. Energy Saving

- ① Material Identification Marks: Material identification marks are placed on the main molded resin parts and die-cast parts, to accelerate recycling.
- ② Environmental Impact Assessment of Products by LCA: Environmental Impact Assessment of the product by using Olympus LCA (OLCA) was conducted and the lifetime environmental loads of the product were verified.
- ③ Use of Eco-glass for Optical Systems: Lead-free and arsenic-free Eco-glass is used for all types of optical glass such as lenses and prisms.
- ④ Development of Resource-saving and Easy-to-recycle Packaging Materials: (1)Use of Cardboard Previously, styrene foam was used as the packaging material, but has been replaced with cardboard, making it easier to recycle. In addition, the information about the materials used on the packaging bags is indicated, to encourage recycling. (2)Reduction of Packaging MaterialsThe previous individual-unit packaging for CX31 has been discontinued, and been changed to a set packaging method, in which units needed for observation are prepackaged together. As a result, the weight was reduced by 7% and the number of parts by 81%, decreasing the environmental loads.



Products/Model :
CX21, Biological Microscopes

Eco-products No.420

Others

35-mm cameras

OLYMPUS E-1 Digital SLR

OLYMPUS CORPORATION

Shinjuku Monolith, 2-3-1 Nishi-Shinjuku, Shinjuku-ku, Tokyo,
163-0914 Japan
Tel; +81-3-3340-2111 Fax;
E-mail; environ@ot.olympus.co.jp
URL; <http://www.olympus.co.jp/>

Category:

- A3. Hazardous Substances
- A5. Resource Consumption
- B2. Longevity
- B3. Resource Saving
- B5. Energy Saving

- ① Use of Lead-free Soldering: Lead-free soldering with tin and zinc is used for major electrical circuit boards. It is planned to selectively use lead-free soldering with tin, silver, or copper based on the thermostable reliability of the surface-mounted component.
- ② Use of Lead-free Lenses: Lead-free lenses are used for all types of optical lenses and prisms.
- ③ Mercury-free Backlight Source for Liquid Crystal Display: A White LED is used for the backlight source of liquid crystal monitors to save energy and eliminate mercury.
- ④ Resource-saving, using Secondary Batteries for Power Supplies: Resource-saving lithium-ion batteries, rechargeable 500 times, are used. Data on Environmental Impact Assessment under LCA: The Olympus
- ⑤ E-1 Digital SLR first achieved the Type3 ECOLEAF label for digital single-lens reflex camera.

We officially published LCA information on the website of the Japan Environmental Management Association for Industry (JEMAI) in conformity with the Type3 environmental label indications stipulated in ISO/TR14025. http://www.jemai.or.jp/JEMAI_DYNAMIC/data/current/prodobj-405-pdf.pdf



Products/Model :
OLYMPUS E-1 Digital SLR

Eco-products No.421

Others

Exchange lenses for cameras

Eco-friendly EF Lenses with High Image Quality

Canon Inc.

30-2, Shimomaruko 3-chome, Ohta-ku, Tokyo, 146-8501 Japan

Tel; 81-3-3758-2111 Fax; 81-3-3758-1160

E-mail;

URL; <http://www.canon.com>

Category:

- A3. Hazardous Substances
- A4. Waste
- B6. Environmental Purification
- C2. Material and Components Production
- C4. Product Manufactures

Preventing sludge from polluting the environment requires a complex and large-scale treatment process. Lead-free lenses will sweep away the root use of lead. Canon launched the development of lead-free lenses in partnership with glass material manufactures and was successful in developing lenses with the same optical features, durability and workability as conventional lenses, using substances that do not cause harm to people or the environment. At least 100 types of Canon lenses, including EF lenses, are made of Lead-free glass materials.



Products/Model :
Canon EF lenses

Eco-products No.422

Others

Watches and clocks

"wn-1", the globe-shaped wrist watch

Think the Earth Project / SPACEPORT INC.

EastWest Bldg 5F, 5-17-10 Hiro-o, Shibuya-ku, 150-0012 Japan

Tel; +81-3-5798-2895 Fax; +81-3-5798-2896

E-mail; sales@spaceport.co.jp

URL; <http://www.thinktheearth.net>

Category:

- B1. Recyclability
- B2. Longevity
- C3. Design and Material selection
- C5. Product Use, Maintenance and Repair
- C6. End-of-Life

View the world from outer space. Try applying planetary speed to your body. "wn-1" is imaged after the view of the Earth as seen from the window of a spaceship. Its globe-shaped hour hand rotates counterclockwise with the North Pole at its center just like the real Earth does. You can read the time of any place on the northern hemisphere at a single glance. "wn-1" consists of three parts: Base holder w/ band, Core module and Bezel. They come in corrugated craft paper wrappings designed after geologic strata. The cardboard layers packed inside function as shock-absorbing material. You can use the package and 20 illustration cards inside it to make wn-1 a desk clock. wn-1 has as many appearances as the people who wear it, and the package won't be thrown away after purchase as it also functions as a part of the product. wn-1 is equipped with a 10-year battery for long-time use. wn-1 is the first product from Think the Earth Project whose worldwide sales started in March 2001. wn-1 was given form by SII (Seiko Instruments Inc.) who sympathized with Think the Earth Project's theme: ecology and economy in coexistence. Wearing "wn-1" makes you feel closer to the Earth always.



Products/Model :
wn-1 (watch northern hemisphere)

Eco-products No.423

Others

Watches and clocks

GRAND SEIKO autowind watch with Spring Drive movement

SEIKO EPSON CORPORATION

3-3-5 Owa, Suwa-shi, Nagano-ken, 392-8502 Japan

Tel; Fax;

E-mail; eco@exc.epson.co.jp

URL; <http://www.epson.co.jp/e>

Category:

- A3. Hazardous Substances
- A4. Waste
- A5. Resource Consumption
- B4. Higher Quality
- C2. Material and Components Production

GRAND SEIKO is a luxury line of watches driven by Seiko Epson's original Spring Drive movement. Not needing batteries, the watch uses the energy from the uncoiling of a wound spring to control the watch hands; the watch's accuracy is controlled by an IC and a quartz crystal. Winding is automatic, which makes this watch even more convenient.



Eco-products No.424

Others

Electronic musical instruments

Electronic Organ: Long-term use without buying a new instrument

Yamaha Corporation

10-1 Nakazawa-cho, Hamamatsu, Shizuoka, 430-8650 Japan

Tel; 0120-186-808 Fax;

E-mail;

URL; <http://www.yamaha.co.jp>

Category:

- A4. Waste
- A5. Resource Consumption
- B1. Recyclability
- B2. Longevity
- C3. Design and Material selection

Electone STAGEA is upgradable by adding and replacing unitized parts. You can use your own STAGEA for a long time, even though your playing skills improved, without replacing with a higher function model. When STAGEA reaches its end-of-life it could be easily disassembled.



Products/Model :

Electone STAGEA : ELS-01

Eco-products No.425

Others

Western and Japanese musical instruments

Brass instruments with lead-free solder

Yamaha Corporation

10-1 Nakazawa-cho, Hamamatsu, Shizuoka, 430-8650 Japan

Tel; 81-53-411-4744 Fax;

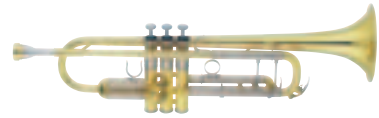
E-mail;

URL; <http://www.yamaha.co.jp>

Category:

- A3. Hazardous Substances
- C3. Design and Material selection
- C4. Product manufactures
- C6. End-of-Life

Yamaha is the first major musical instrument maker to stop the use of lead based solder in brass instruments. They are now using ecologically friendly lead-free solder to prevent any possible damage to the future environment while at the same time creating safer, more worker friendly manufacturing facilities.



Products/Model :

Professional Model Bb Trumpet: YTR-8335

Eco-products No.426

Others

Stationery

Eco Radar (Eraser)

SEED CO., LTD.

5-25, 3-chome, Uchindai-cho, Miyakojima-ku, Osaka, 534-0013 Japan

Tel; 81-6-6951-5436 Fax; 81-6-6954-7851

E-mail; info@seedr.co.jp

URL; <http://www.seedr.co.jp>

Category:

- C6. End-of-Life

Non-PVC Eraser of Excellent Quality



Eco-products No.427

Others

Stationery

pi-mo refill (transfer correction tape)

SEED CO., LTD.

5-25, 3-chome, Uchindai-cho, Miyakojima-ku, Osaka, 524-0013 Japan

Tel; 81-6-6951-5436 Fax; 81-6-6954-7851

E-mail; info@seedr.co.jp

URL; <http://www.seedr.co.jp>

Category:

● B7. Usage of Recycled Materials

All models of Correction Tape of Recycled Body.



Eco-products No.428

Others

Manufacturing products, n.e.c. (Free access floor)

100% recycled PET panels for groove-wiring double floors

Electrical Conduits and Wiring Materials Division, Matsushita Electric Works, Ltd.

14, Kashiwabara, Ishioka City, Ibaragi, 315-0002 Japan

Tel; 81-299-23-2457 Fax; 81-299-23-2417

E-mail;

URL; http://biz.national.jp/Ebox/oa_floor/

Category:

● A1. Global Warming

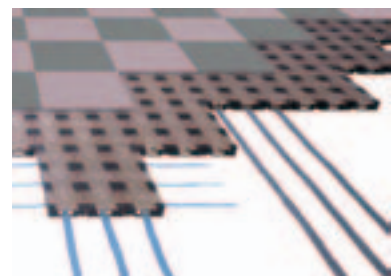
● A5. Resource Consumption

● B3. Resource Saving

● B7. Usage of Recycled Materials

● C4. Product Manufactures

1. This wiring floor is made of recycled PET bottle flakes to effectively use resources to preserve the global environment. CO₂ emissions can be reduced by 32kg by recycling PET bottles to make 1m² panels.
2. The transparent cover allows wiring in grooves to be checked at a glance by just turning over the tile carpets.
3. The wire capacity of FPZ3000 is approx. three times that of our conventional wiring floor (FP). Therefore, it can also accommodate wiring in offices with many PCs.
4. The finished floor panel thickness is only 50mm. The thin panels can also be used in offices with a low ceiling.
5. The panel joint rings securely fix the panel corners. They prevent panel displacement and provide high resistance to earthquakes.



Products/Model :

Wiring Floor FPZ3000 NE11840

Eco-products No.429

Others

Soil for planter

Orchid Base, the shrubbery-soil made from malt-feed

Asahi Breweries, Ltd.

23-1, Azumabashi 1-chome, Sumida-ku, Tokyo, 130-8602 Japan

Tel; 81-3-5608-5195 Fax; 81-3-5608-5201

E-mail; ecopost@asahibeer.co.jp

URL; <http://www.asahibeer.co.jp/>

Category:

- A4. Waste
- B7. Usage of Recycled Materials
- C1. Materials Extraction

One of the waste materials evolved in the manufacturing process of the beer is malt-feed, which is mainly utilized as a feed of cattle. For the purpose of expanding the reuse of malt-feed, Asahi Ecology Ltd. (Asahi Breweries, Ltd group) has developed a new commodity "Orchid Base", which is the shrubbery-soil of ceramic grains. "Orchid Base" is made from malted-feed by a series of treatment; dryness-forming by press-baking. "Orchid Base" has characteristics of not containing heavy metal, but being rich in mineral component, so it is proper for the culture of sugar-rich tomato and that of plants such as orchid.



Eco-products No.430

Others

EBIOS tablet

EBIOS tablet, a by-product in the manufacture of beer

Asahi Breweries, Ltd.

23-1, Azumabashi 1-chome, Sumida-ku, Tokyo, 130-8602 Japan

Tel; 81-3-5608-5195 Fax; 81-3-5608-5201

E-mail; ecopost@asahibeer.co.jp

URL; <http://www.asahibeer.co.jp/>

Category:

- A4. Waste
- B7. Usage of Recycled Materials
- C1. Materials Extraction

Asahi Food & Healthcare, Ltd (Asahi Beer Co. Group) produces medicine, health food, stuff for food, food for animals, etc by using the washed and dried material of the brewing yeast which is obtained in the manufacture of beer. In particular, the medicine "EBIOS" tablet, which contains so many as 18 kinds of nutrients including amino acid, is a long seller having a history of more than 70 years. We have started selling a new version of health food supplement "Super Beer Yeast", recently. Brewing yeast is a natural substance good for the health and we are doing the production of vicarious foods and medicines by applying the features of brewing yeast.



Eco-products No.431

Others

Chemical machinery and its equipment

High-density Ozone Resist Removal Equipment for LCD manufacturing

Mitsubishi Electric Corporation

2-2-3 Marunouchi, Chiyoda-ku, Tokyo, 100-0005 Japan
(after 07/Nov./2005 it will be changed to 2-7-3)
Tel; 81-3-3218-9024 Fax; 81-3-3218-2465
E-mail; eqd.eco@hq.melco.co.jp
(eqd.eco@pj.MitsubishiElectric.co.jp (after 7/Nov./2005))
URL; <http://www.MitsubishiElectric.co.jp/corporate/eco/index.html>

Category:

- A3. Hazardous Substances
- B4. Higher Quality
- C1. Materials Extraction
- C4. Product Manufactures

The amount of special chemicals utilized to clean and remove the resist (photosensitive resin) from components in semiconductor and liquid-crystal display (LCD) manufacturing processes has been markedly reduced. A new system that utilizes hydrolysis to remove resist, sprays a saturated high-density ozone gas to clean the substrate in the LCD manufacturing process. Substitution of the chemical solution has reduced negative environmental impact to less than 1/10 that of the previous method, and also resulted in lower processing cost (one-fifth) and a reduction in production line floor space as tasks following the cleaning process have been simplified.



Products/Model :

High-density Ozone Resist Removal Equipment

Eco-products No.432

Others

Digital audio disc players

Mini hi-fi stereo systems made from 100% recycled polystyrene

Sony Corporation

6-7-35 Kitashinagawa Shinagawa-ku, Tokyo, 141-0001 Japan
Tel; 81-3-5448-2111 Fax; 81-3-5448-2244
E-mail;
URL; <http://www.sony.net>

Category:

- A5. Resource Consumption
- B3. Resource Saving
- A4. Waste
- B7. Usage of Recycled Materials

The plastic used inside Sony's MHC-GNZ7D and MHC-GNX80 mini hi-fi stereo systems is made from 100% recycled polystyrene, a material from used polystyrene foam. As a consequence, these systems have achieved recycled material ratios of 9.2% and 6.5%, respectively.



Products/Model :

MHC-GNZ7D uses recycled plastic

4

Eco-services

- i Product related services
- ii Reuse and recycling services
- iii Management related services
- iv Others



Eco-services No.001

Product related services

Green Gifts

Present Tree

VIVO Corporation Co., Ltd

3-5-4, TANASHICHO, NISHITOKYO-SHI, TOKYO, 188-0011 Japan

Tel; 81-424-65-7563 Fax; 81-424-65-7241

E-mail; info@vivo.jp

URL; <http://env-r.com/tree>

Category:

- A1. Global Warming
- B6. Environmental Purification
- C1. Materials Extraction
- A5. Resource Consumption
- B5. Energy Saving

Present Tree is present that delivers an owner certificate for the planted tree with a message card. Trees will be planted for the reproduction of tropical forests in the Kalimantan island. You can have two planted trees. One of the trees is planted for recovering tropical forest. The other is a Teak, and this afforestation enables the sustainable supply of woods, and creates the employment of locals. Ten years later, the Teak will be cut down, and saled. The income of the Teak will be paid to the owner. The income will also able to be used for reforestation, or the environment conservation activity. As another privilege, CO₂ offset certificate is attached to Present Tree. The planted tree will become forest and that will absorb carbon dioxide. It contributes prevention of global warming. The owner certificate is described with the owner's name, and the latitude and the longitude of the position where the Teak sapling is afforested, that is measured by the GPS (Grobal Positioning System).



Products/Model :

[Present Tree] contents

Eco-services No.002

Reuse and recycling services

Personal computers

HITACHI Recycle Service for PC

HITACHI Recycle otline (Service only in Japan)

2-2-1 Ohte-machi, Chiyoda-ku, Tokyo, 100-0004 Japan

Tel; 0120-12-5006 Fax;

E-mail; anky@ebina.hitachi.co.jp

URL; <http://www.hitachi.co.jp/pc-recycle/> (Japanese Only)

Category:

- A4. Waste
- C6. End-of-Life

Let's recycle the personal computer which became unnecessary! Consultation is to "HITACHI Recycle Hotline"! Revised recycling law (April, 2001 enforcement, ministerial ordinance enforcement in October, 2003) correspondence. The recovery recycling system of the national scale based on approval of the broader based specification system and the broader-based authorization system of the Act of Disposal of WasteMatter. Reuse and recycle what was discarded until now and promote effective use of resources. Cut down the amount of the last disposal (reclamation).



Products/Model :

HITACHI Recycle Service for PC

Eco-services No.003

Reuse and recycling services

Recycling systems

Promoting product reuse business

NEC Corporation

7-1, Shiba 5 cho-me, Minato-ku, Tokyo, 108-0014 Japan

Tel; 81-3-3798-6617 Fax; 81-3-3798-9186

E-mail;

URL; <http://www.nec.co.jp/>

Category:

- B2. Longevity
- B3. Resource Saving
- B7. Usage of Recycled Materials
- C6. End-of-Life

NEC started purchasing and resell services for the end-of-life products from our customers. Customers can easily contact NEC for estimation through website. Once NEC purchased products from customers, we deleted all the data of PCs, cleaned the products and installed new softwares. After all the processes finished, NEC sell these second hand product named as "NEC Refreshed PC" with six-month quality assurance and customers can have support services for these products as same as new ones.



Products/Model :

NEC Refreshed PC, "ValueStar"

Eco-services No.004

Reuse and recycling services

Recycling systems

Promoting sustainable business for ADSL modems

NEC Corporation

7-1, Shiba 5 cho-me, Minato-ku, Tokyo, 108-0014 Japan

Tel; 81-3-3798-6617 Fax; 81-3-3798-9186

E-mail;

URL; <http://www.nec.co.jp/>

Category:

- A4. Waste
- B1. Recyclability
- B3. Resource Saving
- B7. Usage of Recycled Materials
- C6. End-of-Life

Telecommunication carriers used to sell, take-back, store, repair and deliver the rental products, however as extended producers' responsibility, NEC created self-directed take-back and recycling systems for ADSL modems. This can ensure that our products are to be returned to us, which enables us to recycle the products 100% and also to improve the recyclable design with usage of recycled parts.



Products/Model :

Aterm WD701CV

Eco-services No.005

Reuse and recycling services

Cleaning tools

TC Wiper Cloth and Absorbance Kits

Tex Cycle Sdn. Bhd

No. 8, Jalan TPK 2/3, Taman Perindustrian Kinrara, Puchong, Selangor
47100 Malaysia

Tel; 681-3-8076 3816 Fax; 681-3-8076 3817

E-mail; texcycle@po.jaring.my

URL; <https://www.texcycle.com.my>

Category:

- B1. Recyclability
- B2. Longevity
- B3. Resource Saving
- B7. Usage of Recycled Materials

Tex Cycle is a company that specializes in recycling and recovery of scheduled waste. We have our very own in-house laundry and wastewater treatment plant. Tex Cycle also manufactures new reusable products such as absorbent booms, pillow and wiper cloths. TC wiper cloth is made of 100% cotton and is biodegradable. Once contaminated, they are washed using environmentally friendly additives. The treated water from the wastewater treatment plant used during the washing is heated using solar energy. TC product lines are specially designed to withstand the toughest form of industrial punishments. They are strong, high absorbance level, easy to use and they are all environmentally friendly products. Even the packing of these products is done using tapioca based biodegradable plastics. TC products are manufactured in bulk to meet user's requirements at minimum cost.



Eco-services No.006

Management related services

Industrial organic chemicals

Green Procurement and Chemical Substance Management System

Hitachi, Ltd.

6-27-18 Minami-Ohi, Shinagawa-ku, Tokyo, 140-0013 Japan

Tel; 81-3-5471-2382 Fax; 81-3-5471-2877

E-mail; ecoinfo@system.hitachi.co.jp

URL; http://www.hitachi.co.jp/products/ts_env/ (Japanese Only)

Category:

- A3. Hazardous Substances
- C3. Design and Material selection

Realizing Efficient Green Procurement and Design for Environment. Facilitates data collection by introducing the system in green procurement operation withsuppliers. Realizes efficient management to comply with chemical product policy, such as RoHS¹⁾ Directive. Tabulates a part or a product chemical content, and evaluates each product's conformity withregulation. Facilitates cilitates green procurement by automatically requesting registration of chemic information.

1) EU Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment.



Products/Model :

Green Procurement

Eco-services No.007

Management related services

Monitor and control equipment

Energy-Saving Service Solution [HDRIVE]

Hitachi, Ltd.

1-18-13 Soto-Kanda, Chiyoda-ku, Tokyo, 101-0021 Japan

Tel; Fax;

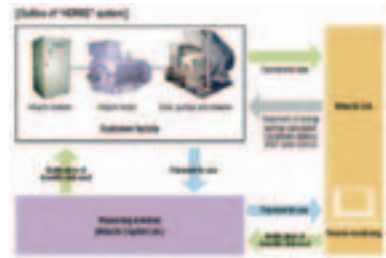
E-mail; project_hdrive@pis.hitachi.co.jp

URL; <http://www.hitachi.co.jp/Div/hitachi/inv/hdrive/> (Japanese)

Category:

- A5. Resource Consumption
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

"HDRIVE", is a service that helps industrial customers conserve energy without paying any initial costs. Hitachi offers to install inverters and high-voltage motors in fans, pumps and blowers at customer facilities free of charge, for equipment in which energy-saving can be expected. Under a ten-year contract, a fixed percentage of the cost savings generated from monthly energy savings is applied as a service charge. The amount of energy saved is calculated from the equipment's operating data, measured by monitoring device. HDRIVE also offers a new financing approach that emphasizes the customer's cash-flow and helps reduce investment risks when customers change their operations.



Products/Model :

Outline of Energy-Saving Service Solution

Eco-services No.008

Management related services

Air conditioning and household equipment

OH SAVER (Optimized HVAC Control System For Energy Saving)

Hitachi Plant Engineering & Construction Co., Ltd.

2-11 Kanda-Nishikichou, Chiyoda-ku, Tokyo, 101-0054 Japan

Tel; 81-3-5281-0131 Fax; 81-3-5281-0139

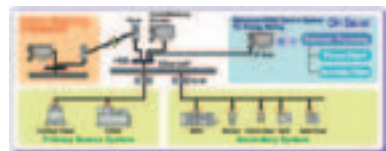
E-mail; a-sales@hitachiplant.co.jp

URL; <http://www.hitachiplant.hbi.ne.jp>

Category:

- A5. Resource Consumption
- B5. Energy Saving
- C5. Product Use, Maintenance and Repair

Total system parameters are simulated to obtain the highest energy saving. 20% Energy saving (cooling season) was achieved by shifting from individual component control to total HVAC System control. Hitachi Experiment Energy saving is realized without changing any existing HVAC equipments. Object oriented software design resulting in flexible adjustments of system components or parameters, i.e., heat source, AHU etc.,



Products/Model :

OH SAVER

Eco-services No.009

Management related services

Electrical machinery, equipment and supplies, n.e.c.

ESCO (Energy Service Corporation)

Hitachi, Ltd. Company : Energy Solution Service Division

1-18-13 Soto-Kanda, Chiyoda-ku, Tokyo, 101-0021 Japan

Tel; 81-3-4564-4302 Fax; 81-3-4564-4149

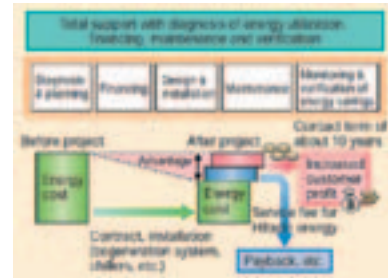
E-mail; esco_hitachi@pis.hitachi.co.jp

URL; <http://www.hitachi.co.jp/ESCO/index.html>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B5. Energy Saving

Comprehensive Energy Solution Service. The service includes energy saving diagnosis, energy saving proposal, equipment installation, finance, and maintenance as comprehensive services for energy savings. Effectively reduction of CO₂ emission, energy costs, and capital assets. No investment for installation of energy saving system, repairing those equipments. Hitachi promotes a totally supporting energy saving business, for instance, air conditioning, lighting, power generation, and optimization of systems.



Products/Model :

ESCO (Energy Service Corporation)

Eco-services No.010

Management related services

Information recording

ECOrates - The Integrated Environmental Information System

Mitsubishi Electric Corporation

2-2-3 Marunouchi, Chiyoda-ku, Tokyo, 100-8310 Japan

(after 07/Nov./2005 it will be changed to 2-7-3)

Tel; 81-3-3218-9024 Fax; 81-3-3218-2465

E-mail; eqd.eco@hq.melco.co.jp(eqd.eco@pj.MitsubishiElectric.co.jp (after 7/Nov./2005))

URL; <http://www.MitsubishiElectric.co.jp/corporate/eco/index.html>

Category:

- A1. Global Warming
- A3. Hazardous Substances
- A4. Waste
- A2. Air Pollution
- A5. Resource Consumption

The massive amount of data involved in administrative and managerial issues related to the environmental management business requires the utilization of various information systems. To improve the efficiency of its environmental management activities, Mitsubishi Electric has developed and introduced an integrated environmental information management system designed to promote the achievement of environmental action objectives throughout the group.



Products/Model :

ECOrates

Eco-services No.011

Management related services

Consulting Service

Consulting service for geothermal and hydraulic power generation

Mitsubishi Materials Corporation Geothermal & Electric Power Center
 1-297, Kitabukuro-cho, Omiya-ku, Saitama-shi, Saitama, 330-8508 Japan
 Tel; 81-48-641-5624 Fax; 81-48-641-5632
 E-mail;
 URL; <http://www.mmc.co.jp/english/business/energy.html>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B1. Recyclability
- C1. Materials Extraction

Mitsubishi Materials have long been actively involved in the development and utilization of renewable energy sources, such as geothermal and hydraulic energy, taking advantage of the technology we have acquired in the underground resources business. We have six hydroelectric power plants (approx.17MW total) and two geothermal power plants : the Ohnuma Geothermal Power Plant (9.5MW:since1974) and the Sumikawa Geothermal Power Plant (50MW:since1994), operating at Akita Prefecture in Japan. These power plants generate clean electric power of around 565,000MWh per year. Geothermal power generation utilizes steam energy extracted from underground by drilling wells as deep as 2,000 meters. It requires specialized techniques and technology to utilize effectively this kind of high temperature-underground resources in all stages of site survey, drilling, and maintenance of output power. We have acquired the necessary techniques and technology through our direct involvement in developing and operating our two geothermal power plants. With this experience, we are actively participating in geothermal area surveys and technological development projects at home and abroad.



Products/Model :

Ohnuma Geothermal Power Plant (9.5MW)

Eco-services No.012

Management related services

Manufacturing products, n.e.c.

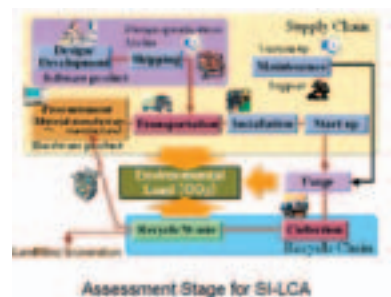
System Integration Life Cycle Assessment SI-LCA

Hitachi, Ltd. Information and Telecommunication Systems
 6-27-18 Minami-Ohi, Shinagawa-ku, Tokyo, 140-0013 Japan
 Tel; 81-3-5471-2745 Fax; 81-3-5471-2746
 E-mail; m-tani@itg.hitachi.co.jp
 URL;

Category:

- A1. Global Warming
- A2. Air Pollution
- A3. Hazardous Substances
- A4. Waste
- A5. Resource Consumption

Quantities evaluation technique about the environmental load of a System & Service product. The environmental load by introduction of a System & Service product is converted into the amount of CO₂ emission, and quantitative evaluation is possible. The life cycle of a System & Service product is evaluated on ten steps of stages which equipment manufacture, usage, collection, recycle, waste, etc. defined from a design and development of software. Calculation of the employment cost and environmental load cost accompanying systems development or introduction is possible.



Products/Model :

SI-LCA

Eco-services No.013

Others

Conveyers and conveying equipment, and parts, attachments and accessories

Eco-friendly total logistics service

Hitachi Industries co., Ltd

9-7 Ikenohata 2-chome, Taito-ku, Tokyo, 110-0008 Japan

Tel; 81-3-5814-5611 Fax; 81-3-5814-5627

E-mail;

URL; <http://www.hitachi-hic.com>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B5. Energy Saving

Ocean gateway will support your logistics for the less CO₂ emission. We Hitachi Futo Co. Ltd is pleased to offer the total logistic solution such as, To minimize the CO₂ emission by utilizing the nearest port for North Kanto Province. To offer the global logistics service from the small items to giant items with reasonable cost. To transport and store the customer's commodities in the safe Ibaraki area where has no active fault.



Products/Model :

Eco-friendly total logistics service

Eco-services No.014

Others

Transportaiton Service by Rail

Environmentally Friendly E231 Series

East Japan Railway Company

2-2, Yoyogi 2-chome, Shibuya-ku, Tokyo, 151-8578 Japan

Tel; 81-3-5334-1122 Fax;

E-mail; 01staff89@jreast.co.jp

URL; <https://www.jreast.co.jp/>

Category:

- A1. Global Warming
- B1. Recyclability
- B4. Higher Quality
- B5. Energy Saving
- C3. Design and Material selection

The E231 series reduces operational energy consumption by 50% compared to that of the 103 series, and in terms of weight, 90% of the E231 series railcar can be recycled. Servicing the Yamanote, Takasaki, Utsunomiya, and other metropolitan lines, the E231 series currently realized the most environmentally friendly design.



Products/Model :

E231 series run on the Utsunomiya line

Eco-services No.015

Others

Insurance

Weather Protection: Weather Derivatives/Insurance, Wind Speed

Tokio Marine & Nichido Fire Insurance Co., Ltd.
 2-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo, 100-8050 Japan
 Tel; Fax;
 E-mail;
 URL; <http://www.tokiomarine-nichido.co.jp/>

Category:

- A1. Global Warming
- A5. Resource Consumption
- B4. Higher Quality
- C4. Product Manufactures
- C5. Product Use, Maintenance and Repair

Ecology-related industries have a great risk of setting up and managing business due to that their operations and performance depends on weather phenomenon and climatic aberration. We support a variety of business ventures and operations by having risk-transfer products, weather derivatives and weather insurance assume a part of this risk. Example : "Wind Condition Protection" for wind power generation utilities.



Products/Model :
 Pamphlet (Weather Derivatives)

Eco-services No.016

Others

Environmental management supporting system

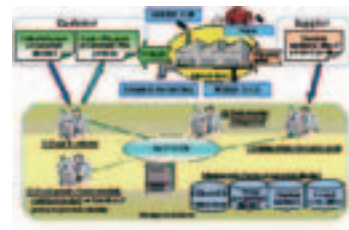
environmental management supporting system Eco 倶楽部

TOSHIBA CORPORATION Industrial and Power Systems & Services Company
 1-1, Shibaura 1-Chome, Minato-Ku, Tokyo, 105-8001 Japan
 Tel; 81-3-3457-3626 Fax; 81-3-5444-9188
 E-mail; ecoclub@hby.toshiba.co.jp
 URL; https://www.toshiba.co.jp/efort/product/eco/index_j.htm

Category:

- A3. Hazardous Substances
- B6. Environmental Purification
- C2. Material and Components Production
- C3. Design and Material selection
- C4. Product Manufactures

This software enables the user to perform the integrated management of RoHS (Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment) directives of EU that will be effective in July 2006 and the chemical substances specified by JGPSSI (Japan Green Procurement Survey Standardization Initiative) that is a domestic standardization organization. This product is equipped with the data of more than 3,000 chemical substances that are the target of environment-related laws, and allows step by step survey for efficient recovery by setting the priority of the chemical substances to control. When requested the management of substances by the different method for each customer, the software can easily perform the aggregate management for each supplier and easily judge and report whether the own product is compatible with the customer's procurement condition or not.



Products/Model :
 Chemical Substance Management by Eco 倶楽部

Company List

Company List

A

AJINOMOTO CO., INC.	EP388
Alpine Electronics, Inc.	EP110
AMITA CORPORATION	EM077
Andes Electric Co., Ltd.	EP041
Anritsu Corporation	EP372, EP373, EP374, EP375
AOMORI HOME COMPONENT CO., LTD.	EC001
Apple Studio	EP404
Asahi Breweries, Ltd.	EP429, EP430
ASAHI KASEI CONSTRUCTION MATERIALS CORPORATION	EM054

B

BAIO WORTH Co., Ltd.	EM067
BASF INOAC polyurethanes Ltd.	EM055
Bestway Inc.	EP283
Bridgestone Corporation	EC025, EC026, EC027, EP160

C

Canon Inc.	EP163, EP171, EP197, EP198, EP199, EP204, EP407, EP408, EP421
CHIKUMA & Co., Ltd.	EP221, EP222, EP223
Cosmo Engineering Co., Ltd.	EP314, EP315
COSMO OIL CO., LTD. and COSMO SEIWA AGRICULTURE CO., LTD.	EP393
Cosmo Oil Lubricants Co., Ltd.	EP395, EP396, EP397, EP398, EP399, EP400, EP401
CRYSTAL CLAY CORP.	EM060, EM061, EM062, EM063
Cycle Inc.	EP405

D

Daido Steel Co., Ltd.	EM020, EM021, EP333, EP334
DAIKIN INDUSTRIES, LTD.	EP023, EP024, EP029, EP357, EP358, EP359, EP360, EP361, EP362, EP363
Dainippon Ink And Chemicals, Incorporated	EM040
DCT Co., Ltd.	EP054
Dynax Corporation	EM073, EC029, EC030

E

East Japan Railway Company	ES014
Ebara Corporation	EP330, EP337, EP340, EP341, EP342, EP343, EP344, EP350
ENTEC Co., Ltd.	EP242

F

FD Green (Thailand) Co., Ltd.	EP277
FUJITSU COMPONENT LIMITED	EC015, EC016
FUJITSU LIMITED	EC009, EC011, EC012, EP185, EP186, EP194, EP195, EP203, EP205
FUJITSU MEDIA DEVICES LIMITED	EC013, EC017, EC018

G

G&F Corporation	EP386
----------------------	-------

H

HANITSU TRADE Co., Ltd.	EM080, EP268
Hattori paper co., Ltd.	EP239, EP245, EP273, EP274
HEART CO., LTD.	EP224
Hemp Products Spread Association	EM051
Hiba Development Co., Ltd.	EP225, EP238, EP243
Hitachi Air Conditioning Systems Co., Ltd.	EP347
Hitachi Cable., Ltd.	EC019, EC023, EC024
Hitachi Chemical, Ltd.	EP107
Hitachi Communication technologies, Ltd.	EP192
Hitachi Global Storage Technologies	EP193
Hitachi High-Technologies Corporation	EP365
Hitachi Home & Life Solutions, Inc.	EP006, EP007, EP012, EP016, EP031, EP035, EP040, EP296
Hitachi Industrial Equipment Systems Co., Ltd.	EP331, EP349, EP356
Hitachi Industries Co., Ltd.	EP065, EP338, ES013
Hitachi Koki Co., Ltd.	EP295, EP321, EP322
Hitachi Maxell, Ltd.	EP177
Hitachi Metals Automotive Components Company	EC031
Hitachi Metals Singapore Pte. Ltd.	EM035
Hitachi Plant Engineering & Construction Co., Ltd.	EP028, ES008
HITACHI Recycle Hotline (Service only in Japan)	ES002
Hitachi, Ltd.	EP323, EP355, ES006, ES007
Hitachi, Ltd., Advanced Research Laboratory	EP109
Hitachi, Ltd., Automotive Systems	EP161, EP162
Hitachi, Ltd., Digital Media Division	EP080
Hitachi, Ltd., Disk Array Systems Division	EP182
Hitachi, Ltd., Energy Solution Service Division	ES009
Hitachi, Ltd., Information and Telecommunication Systems	ES012
Hitachi, Ltd., Power System PV Business Project	EP300
Hitachi, Ltd., Ubiquitous Platform Group	EP079, EP106, EP179
Hitachi, Ltd., Urban Planning and Development Systems	EP009

I

INAX Corporation	EP247, EP248, EP249, EP250, EP289, EP290, EP291
Intact, private limited company	EM041, EP227

J

JFE Engineering Corporation	EM037, EP376, EP377, EP378, EP379
JFE Steel Corporation	EM014, EM017, EM018, EM028, EM029, EM030, EM031
JIT Co., Ltd	EP414

K

Kajima Corporation	EM059, EM064, EP287
KANEDA CO., LTD.	EP213
KAWASAKI HEAVY INDUSTRIES, LTD.	EP367
KING JIM CO., LTD.	EP218
Kodate Lumber Inc.	EP279
Komatsu Ltd.	EP318, EP319, EP320
KUBOTA Corporation	EP402
KURABO INDUSTRIES LTD.	EM048, EM049, EM050
Kyocera Corporation	EP276

L

LHT Holdings Limited	EM074, EM075, EM076
----------------------------	---------------------

M

Maezawa Industries, Inc.	EP282
Marujyu Kasei Co., Ltd.	EP217
Materialhouse Co., Ltd.	EP002
Matsushita Ecology Systems Co., Ltd.	EC003, EC004, EP316
Matsushita Electric Industrial Co., Ltd.	EC008, EP020, EP021, EP032, EP037
Matsushita Electric Industrial Co., Ltd., Air-conditioner Division	EP026
Matsushita Electric Industrial Co., Ltd., Energy & Healthcare Solutions Division	EP014, EP038, EP042
Matsushita Electric Industrial Co., Ltd., Panasonic AVC Networks Company	EP011, EP059, EP060, EP061, EP062, EP063
	EP066, EP067, EP070, EP071, EP072, EP073, EP081, EP082, EP087, EP088
	EP094, EP095, EP096, EP097, EP098, EP099, EP100, EP101, EP102, EP104
	EP187, EP188, EP189, EP190, EP411, EP412
Matsushita Electric Industrial Co., Ltd., Semiconductor Company	EC010
Matsushita Electric Works, Ltd.	EM070, EM072, EP043, EP044, EP275
Matsushita Electric Works, Ltd., Electrical Conduits and Wiring Materials Division	EP428
Matsushita Electric Works, (Ayuthaya)Ltd.	EP053
Matsushita Refrigeration Company	EP018
Matsushita Refrigeration Company Food Solutions Division	EP013
meiwa kosakusho Co., LTD.	EP339, EP345
Mieco Manufacturing Sdn Bhd	EP208, EP209
MITSUBISHI CHEMICAL FUNCTIONAL PRODUCTS, INC.	EP284
Mitsubishi Electric Corporation	EC007, EC022, EP015, EP022, EP030, EP078, EP267, EP269, EP270, EP297
	EP298, EP299, EP335, EP336, EP351, EP352, EP353, EP354, EP431, ES010
MITSUBISHI ELECTRIC OSRAM Ltd.	EP048
Mitsubishi Heavy Industries, Ltd.	EP317, EP346, EP348, EP368
Mitsubishi Materials Corporation	EP306
Mitsubishi Materials Corporation Geothermal & Electric Power Center	ES011
Mitsubishi Materials Polycrystalline Silicon Corporation	EM032
Mitsubishi Rayon Engineering Co., Ltd.	EC021
MO-HOUSE	EP220
MU COMPANY LTD.	EP312, EP313

N

Nagashima Special Paint Co., Ltd.	EP285
Nakayama Steel Works, Ltd.	EM006
NEC Corporation	EM053, EP183, EP201, ES003, ES004
NGK SPARK PLUG CO., LTD.	EM065, EM066
Nihon Servo, Ltd.	EP366
NIKON CORPORATION	EM056, EP409
Nippon Steel Corporation	EM002, EM004, EM005, EM007, EM015, EM016, EM025, EM026, EM027, EM038
	EM039, EM078, EP108, EP311
Nitto Denko Corporation	EM079, EC039
NSK Ltd.	EC020
NTN Corporation	EP387

O

Obayashi Corporation	EP280
OBAYASHI CORPORATION (Technical Research Institute)	EP310
Obayashi Corporation, Technical Research Institute	EC002, EP286
Okamura Corporation	EP210, EP211

OLYMPUS CORPORATION	EP415, EP417, EP418, EP419, EP420
Osaka Gas Co., Ltd.	EP004, EP005, EP262, EP263
Osaka Organic Chemical Ind., Ltd.	EM052

P

Panasonic Communications Co., Ltd.	EP076, EP172, EP174, EP176, EP178, EP196
Panasonic System Solutions Company, Matsushita Electric Industrial Co., Ltd.	EP180, EP410, EP413
PFU LIMITED	EP206
PIONEER CORPORATION	EP058, EP074, EP077, EP091, EP092, EP103, EP159
Platinum Pen Co., Ltd.	EP214
PLUS CORPORATION	EP219

R

Ricoh Company, Ltd.	EP164, EP165, EP166, EP167
--------------------------	----------------------------

S

Sagawa Express Co., Ltd.	EP156, EP158
SAKURAI CO., LTD.	EP212
Sambo Copper Alloy Co., LTD.	EM033
SARAYA CO., LTD.	EP237
SASAKI PRINTING CO., LTD.	EP391, EP392
SEED CO., LTD.	EP426, EP427
SEIKO EPSON CORPORATION	EP175, EP181, EP200, EP423
Sekisui Chemical Co., Ltd.	EM045, EM069, EP307, EP308, EP309, EP403
Sekisui Chemical Co., Ltd. Housing Company	
URBAN INFRASTRUCTURE & ENVIRONMENTAL PRODUCTS HEADQUAR	EM068
SEKONIC CORPORATION	EP173
SHARP CORPORATION	EP019, EP027, EP034, EP045, EP046, EP047, EP086, EP090, EP169, EP170 EP384, EP385
Shimadzu Corporation	EP326, EP369
SHIMIZU CORPORATION	EP302, EP303, EP304
Shin Nippon Core Co., Ltd.	EP001
Sony Corporation	EP039, EP064, EP069, EP075, EP084, EP085, EP093, EP105, EP184, EP432
Sumitomo Bakelite Co., Ltd.	EM046, EM047
Sumitomo Electric Fine Polymer, INC.	EM042, EM043
Sumitomo Metal Industries, Ltd.	EM001, EM003, EM008, EM009, EM010, EM011, EM012, EM013, EM019, EM071 EP293, EP294
Suntory Limited	EP228

T

Taiheiyo Cement Corporation	EM057, EM058
TAIYO NIPPON SANZO Corporation	EP327, EP328, EP329
TANABE SEIYAKU and TERUMO Corporation	EP394
Tanaka Sekkai-Kogyo co.	EP292
Taniguchi Heat Treatment Co., Ltd.	EP332
TEIJIN TECHNO PRODUCTS LIMITED	EM044
TERAO CO., LTD.	EP010
Tex Cycle Sdn. Bhd	ES005
The Seiyu, Ltd.	EP240
Think the Earth Project / SPACEPORT INC.	EP422
Tokin EMC Engineering Co., Ltd.	EP416
Tokio Marine & Nichido Fire Insurance Co., Ltd.	ES015
Tokyo Electric Power Company	EC005, EP272

Tokyo Electric Power Environmental Engineering CO., INC.	EP288
Tokyo Gas Co., Ltd.	EP254, EP255, EP256, EP257, EP258, EP259, EP260, EP261, EP380, EP381
Tombow Pencil Co., Ltd.	EP215, EP216
tomita & co., ltd.	EP390
Toshiba Carrier Corporation	EP025
TOSHIBA CONSUMER MARKETING CORPORATION	EP008, EP017, EP033
TOSHIBA CORPORATION Digital Media Network Company	EP089
TOSHIBA CORPORATION Industrial and Power Systems & Services Company	EP202, ES016
TOSHIBA CORPORATION Personal Computer & Network Company	EP191
TOSHIBA HOMELIGHTING CO., LTD.	EP050
TOSHIBA LIGHTING & TECHNOLOGY CORPORATION	EP049, EP051, EP052
TOSHIBA LIGHTING & TECHNOLOGY CORPORATION Electric Products Equipment Division	EP055, EP056, EP057
TOSHIBA MEDICAL SYSTEMS CORPORATION	EP364, EP370, EP371
TOSHIBA PLANT SYSTEMS & SERVICES CORPORATION	EP382, EP383
TOSHIBA TEC CORPORATION	EP036, EP168, EP207
TOSTEM CORPORATION	EP226, EP241, EP251, EP264, EP265, EP266, EP278, EP305
TOTO Ltd.	EP229, EP246, EP252, EP253, EP271
TOYO INK MFG. CO., LTD.	EC032, EC033, EC034, EC035, EC036, EC037, EC038
Toyo Kohan Company, Limited	EM022, EM023, EM024, EM036
Toyo Machinery & Metal Co., Ltd.	EP324, EP325
Toyota Motor Corporation	EC028, EP111, EP112, EP113, EP114, EP115, EP116, EP117, EP118, EP119 EP120, EP121, EP122, EP123, EP124, EP125, EP126, EP127, EP128, EP129 EP130, EP131, EP132, EP133, EP134, EP135, EP136, EP137, EP138, EP139 EP140, EP141, EP142, EP143, EP144, EP145, EP146, EP147, EP148, EP149 EP150, EP151, EP152, EP153, EP154, EP155, EP301

U

Uenodai htaihiseisan kyoudoukumiai	EP389
Unicharm Corporation	EP230, EP231, EP232, EP233, EP234, EP235, EP236, EP244

V

Victor Company of Japan, Ltd.	EC006, EC014, EP003, EP068, EP083
VIVO Corporation Co., Ltd.	ES001

W

wellwishers inc.	EP281
-----------------------	-------

Y

Yamaha Corporation	EP424, EP425
YAMAHA MOTOR CO., LTD.	EM034, EP157
Yokogawa Electric Corporation	EP406

1000.10.2005



ASIAN PRODUCTIVITY ORGANIZATION

1-2-10, Hirakawa-cho, Chiyoda-ku, Tokyo 102-0093, Japan

Tel: (81-3)5226-3920 Fax: (81-3)5226-3950

e-Mail: apo@apo-tokyo.org

URL: www.apo-tokyo.org

EGO-PRODUCTS DIRECTORY 2005

For Sustainable Production & Consumption



ISBN: 92-833-2361-0