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मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 1326 (1992): Non-coniferous sawn timber (Baulks and scantlings) - [CED 9: Timber and Timber Stores]



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“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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भारतीय मानक

गैर-शंकुधारी चिरी हुई लकड़ी (शहतीर एवं फट्टी) — विशिष्ट
(दूसरा पुनरीक्षण)

Indian Standard

NON-CONIFEROUS SAWN TIMBER
(BAULKS AND SCANTLING) — SPECIFICATION
(*Second Revision*)

UDC 674.038.6

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BUREAU OF INDIAN STANDARDS
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NEW DELHI 110002

FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Timber Sectional Committee had been approved by the Civil Engineering Division Council.

Coniferous sawn timber in the form of baulks and scantlings are covered in IS 190 : 1991 'Specification for coniferous sawn timber (baulks and scantlings) (*fourth revision*)'. This specification has been formulated as an adjunct to IS 190 : 1991 to cover non-coniferous timber. A major proportion of non-coniferous timber is marketed in the form of baulks and scantlings which are sometimes used, as they are, and sometimes further converted for various end uses. A standard which would guide the selection of non-coniferous timber was considered essential in view of the large quantity of timber produced and the variety of timber involved. This specification is intended to meet that purpose.

This standard was first published in 1958. It was first revised in 1976 wherein modifications were made in the extent of prohibited and permissible defects, and based on these defects, sawn timber had been graded into three grades (*see 6.1*). In this second revision Amendment No. 1 issued to earlier version has been incorporated, which give the sizes of sawn timber which are generally available, and provisions for prohibited and permissible defects have been modified. The permissible limits for centre heart have been further modified to accommodate the cases where the sawn timber is to be used as such, that is, without any further conversion. Based on the experience gained in the use of some other sawn timbers, the list of species given in Annex A has been updated. Further the foreign timber species in use in India have also been included.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard

NON-CONIFEROUS SAWN TIMBER (BAULKS AND SCANTLINGS) — SPECIFICATION

(Second Revision)

1 SCOPE

This standard covers the requirements of non-coniferous sawn timber in the form of baulks and scantlings.

2 REFERENCES

2.1 Following Indian standards are necessary adjuncts to this standard:

| <i>IS No.</i> | <i>Title</i> |
|-------------------------|---|
| 401 : 1982 | Code of practice for preparation of timber (<i>third revision</i>) |
| 707 : 1976 | Glossary of terms applicable to timber technology and utilization (<i>second revision</i>) |
| 1141 : 1973 | Code of practice for seasoning of timber (<i>first revision</i>) |
| 1150 : 1976 | Specification for trade names and abbreviated symbols for timber species (<i>second revision</i>) |
| 3364 (Part 2) : 1976 | Method of measurement and evaluation of defects in timber : Part 2 Converted timber (<i>first revision</i>) |

3 TERMINOLOGY

For the purpose of this standard, the definitions given in IS 707 : 1976 shall apply.

4 SPECIES

The species of timber covered by this specification shall be as given in Annex A and Annex B. The nomenclature and abbreviations of various species are based on IS 1150 : 1976.

5 DIMENSIONS AND MEASUREMENTS

5.1 The dimensions of the sawn timber shall be as ordered. However, the sawn timber is generally available in the following lengths and cross sections:

Length : 1 m, 1.5 m, 2.0 m, 2.5 m, 3.0 m and 3.5 m.

Cross Section :

200 mm × 100 mm, 200 mm × 125 mm,
200 mm × 150 mm, 200 mm × 200 mm,
250 mm × 125 mm, 250 mm × 150 mm,
and 300 mm × 150 mm.

5.2 Measurement

5.2.1 Length

The length shall be measured from end to end in metres correct to 0.01 m. Any end portion of sawn timber that has become rounded or damaged shall be excluded from length measurement.

5.2.2 Width and Thickness

The width and thickness shall be measured at the narrowest place in millimetre correct to 10 mm.

5.2.3 Volume

The volume shall be computed in cubic metres correct to three places of decimal by the product of length, width and thickness on the basis of accepted sizes.

6 REQUIREMENTS AND GRADING

6.1 Grading

The non-coniferous sawn timber shall be of three grades, that is, special grade, Grade 1 and Grade 2, depending upon prohibited and permissible defects (*see 7*).

6.2 Requirements

6.2.1 Timber shall be air-seasoned to a moisture content not exceeding 20 percent within a depth of 13 mm from the surface, excluding 300 mm from each end.

6.2.2 Timber shall be either sawn or axe-hewn. Any axe-hewn timber shall be reasonably even. All pieces shall have fairly straight and parallel sides and rectangular cross sections.

7 PROHIBITED AND PERMISSIBLE DEFECTS

7.1 Prohibited Defects

The sawn timber of all the three grades shall be free from spiral or twisted grain, warp, any kind of decay or live insect attack. Special grade sawn timber shall be free from centre heart, wane, cup shakes, borer holes (dead infestation), sapstain (blue stain) and knots also. Grade 1 shall be free from cup shakes also (*see also Table 1*).

Table 1 Permissible Defects for Different Grades of Non-Coniferous Sawn Timber
(Clauses 7.1 and 7.2)

| Sl No. | Defects | Special Grade | Grade 1 | Grade 2 |
|--------|-------------|---|---|--|
| (1) | (2) | (3) | (4) | (5) |
| i) | Cross grain | Cross grain shall be permissible up to a maximum deviation of 1 in 15 | Cross grain shall be permissible up to a maximum deviation of 1 in 10 | Cross grain shall be permissible up to a maximum deviation of 1 in 8 |
| ii) | End-splits | The longest end split at each end shall be measured and the lengths added together. The total length of longest splits shall not exceed 60 mm per metre run of the length | The longest end splits at each end shall be measured and the length added together. The total length of the longest splits shall not exceed 80 mm per metre run of the length | The end splits at each end shall be measured and the length added together. The total length of the splits shall not exceed 100 mm per metre run of the length |
| iii) | Knots | Not permissible | <p>a) Live knots up to 25 mm in diameter shall be permissible provided these are not grouped or located in such a manner as to affect unduly the yield and strength of the converted timber. Live knots from 25 mm to 35 mm in diameter shall be permissible to the extent of 3 knots per metre length of the piece provided these are not grouped or located in such a manner as to affect unduly the yield and strength of the converted timber. The live knots from 35 mm to 50 mm in diameter shall be permissible to the extent of one knot per metre length of the piece</p> <p>b) Dead knots up to 15 mm in diameter shall be permissible to the extent of not more than two knots per metre length of the piece and dead knots from 15 mm to 25 mm in diameter shall be permissible to the extent of one knot per metre length of the piece. Knots more than 25 mm in diameter shall not be permitted</p> | <p>a) Live knots up to 35 mm in diameter shall be permissible provided these are not grouped or located in such a manner as to affect unduly the yield and strength of the converted timber. Live knots from 35 mm to 50 mm in diameter shall be permissible to the extent of 3 knots per metre length of the piece provided these are not grouped or located in such a manner as to affect unduly the yield and strength of the converted timber. Live knots from 50 mm to 75 mm in diameter shall be permissible to the extent of one knot per metre length of the piece</p> <p>b) Dead knots up to 15 mm in diameter shall be permissible provided these are not too numerous and are not located in such a manner as to affect unduly the yield on conversion and usefulness of the sawn timber. Dead knots from 15 mm to 25 mm in diameter shall be permissible to the extent of three knots per metre of length of the piece and for more than 25 mm and up to 35 mm, two knots per metre length are permitted. Knots more than 35 mm in diameter shall not be permitted</p> |
| iv) | Sapwood | If not distinguishable sapwood shall be permissible up to 100 percent otherwise permissible up to 25 percent of the cross-sectional area of the piece | If not distinguishable sapwood shall be permissible up to 100 percent, otherwise up to 50 percent of the cross-sectional area of the piece | Permissible |

Table 1 (concluded)

| Sl No. | Defects | Special Grade | Grade 1 | Grade 2 |
|--------|---------------------------------|---|--|--|
| (1) | (2) | (3) | (4) | (5) |
| v) | Surface checks | Surface checks not exceeding 7 mm in depth in any face shall be permissible. In case one of the faces is free from checks the opposite face may have individual checks up to 10 mm in depth and not more than 5 in number | Surface checks not exceeding 10 mm in depth in any face shall be permissible. In case one of the faces is free from checks the opposite face may have individual checks up to 15 mm in depth and not more than 5 in number | Surface checks not exceeding 12 mm in depth in any face shall be permissible. In case one of the faces is free from checks the opposite face may have individual checks up to 20 mm in depth and not more than 5 in number |
| vi) | Sapstain (blue stain) | Not permissible | Permissible | Permissible |
| vii) | Wane | Not permissible | Wane shall be permissible up to one-fifth of the width on a broad face, and up to one-third of the width on the narrow face provided that one broad face and one narrow face is completely free from this defect. Wane shall not be present in more than 30 percent of the total number of pieces accepted at any one time | Wane shall be permissible up to one-fourth of the width on a broad face, and one-third of the width on the narrow face provided that one broad face and one narrow face is completely free from this defect. Wane shall not be present in more than 30 percent of the total number of pieces accepted at any one time |
| viii) | Borer hole (dead infestation) | Not permissible | Borer holes (dead infestation) shall be permissible on one face only provided such holes are not deeper than 10 mm and well scattered | Borer holes (dead infestation) shall be permissible on two faces only provided such holes are not deeper than 10 mm and are scattered, on a single face only provided they are not deeper than 20 mm and are well scattered |
| ix) | Centre heart | Not permissible | a) If baulks and scantlings are to be converted further : Centre heart shall be permissible provided it is not farther than 25 mm from the nearest edge and is sound b) If baulks and scantlings are to be used as such : Centre heart shall be permissible provided it is farther than 50 mm from the nearest edge | a) If baulks and scantlings are to be converted further : Centre heart shall be permissible provided it is not farther than 50 mm from the nearest edge and is sound and boxed b) If baulks and scantlings are to be used as such : Centre heart shall be permissible provided it is farther than 25 mm from the nearest edge |
| x) | Cup-shake | Not permissible | Not permissible | Cup-shake shall be permissible up to a total length of 150 mm when measured along the arc and up to a maximum of 150 mm in depth provided they appear only on one end |

7.2 Permissible Defects

The defects to the extent specified in Table 1 for the different grades of non-coniferous sawn timbers shall be permissible. The defects shall be measured according to IS 3364 (Part 2) : 1976.

8 PROPHYLACTIC TREATMENT

All timbers may be given prophylactic treatment as specified in IS 401 : 1982 subject to agreement between the purchaser and the supplier.

9 END COATINGS

To prevent and to minimize end cracking, splitting, etc, the ends of each baulk and scantling, up to a distance of 150 mm, or at least 25 mm more than the length of larger split (whichever is more) shall be adequately coated with any of the materials mentioned in IS 1141 : 1973.

Application of end coating on the timber shall be done soon after the inspection of timber.

10 MARKING

10.1 Immediately after inspection, each piece of timber shall be legibly and indelibly marked on one of the faces at a distance of about 300 mm from the end with the following:

- a) Name of species (see Abbreviations in Annex A);
- b) Dimensions of the piece;
- c) Supplier's name or initials or registered trade-mark, if any;
- d) Year of supply; and
- e) Grade.

10.1.1 The piece of timber may also be marked with the Standard Mark.

ANNEX A

(Foreword and Clause 4)

NON-CONIFEROUS SPECIES OF INDIAN TIMBERS

| <i>Standard Trade Name</i> | <i>Botanical Name</i> | <i>Abbreviated Symbol</i> |
|----------------------------|---|---------------------------|
| Aglaia | <i>Aglaia</i> spp. | AGL |
| Aini | <i>Artocarpus hirsutus</i> | AIN |
| Amari | <i>Amoora wallichii</i> | AMA |
| Anjan | <i>Hardwickia binata</i> | ANJ |
| Arjun | <i>Terminalia arjuna</i> | ARJ |
| Ash | <i>Fraxinus</i> spp. | ASH |
| Axlewood (Bakli) | <i>Anogeissus latifolia</i> | AXL |
| Babul | <i>Acacia nilotica</i> (Syn. <i>A. arabica</i>) | BAB |
| Bael | <i>Aegle marmelos</i> | BAE |
| Bahera | <i>Terminalia bellirica</i> | BAH |
| Ballagi | <i>Poeciloneuron indicum</i> | BAL |
| Banati | <i>Lophopetalum wightianum</i> | BAN |
| Benteak | <i>Lagerstroemia lanceolata</i> | BEN |
| Bhendi | <i>Thespesia populnea</i> | BHE |
| Bijasal | <i>Pterocarpus marsupium</i> | BIJ |
| Birch | <i>Betula alnoides</i> | BIR |
| Black chuglum | <i>Terminalia manii</i> | BCH |
| Black Locust | <i>Robinia pseud-acacia</i> | BLO |
| Black Wattle | <i>Acacia mearnsii</i> | BWA |
| Blue Gum | <i>Eucalyptus globulus</i> | BLG |
| Bola | <i>Morus laevigata</i> | BOL |
| Bonsum | <i>Phoebe</i> spp. | BON |
| Boxwood | <i>Buxus sempervirens</i> | BOX |
| Bruguiera | <i>Bruguiera</i> spp. | BRU |

| Standard Trade Name | Botanical Name | Abbreviated Symbol |
|---------------------|--|--------------------|
| Bulletwood | <i>Manilkara</i> spp. | BUL |
| Casuarina | <i>Casuarina equisetifolia</i> | CAS |
| Celtis | <i>Celtis australis</i> | CEL |
| Champ | <i>Michelia</i> spp. | CHM |
| Chaplash | <i>Artocarpus chaplasha</i> | CHP |
| Charoli | <i>Buchanania lanzan</i> | CHO |
| Chickrassy | <i>Chukrasia velutina</i> (Syn. <i>C. tabularis</i>) | CHI |
| Chilauni | <i>Schima wallichii</i> | CHL |
| Chooi | <i>Sagcræa elliptica</i> | COO |
| Cinnamon | <i>Cinnamomum</i> spp. | CIN |
| Civit | <i>Swintonia floribunda</i> | CIV |
| Debdaru | <i>Polyalthia fragrance</i> | DEB |
| Dhaman | <i>Grewia tiliifolia</i> | DHA |
| Dillenia | <i>Dillenia</i> spp. | DIL |
| Dipika (Lapse) | <i>Mansonia dipikæ</i> | DIP |
| Domsal | <i>Milium velutina</i> | DOM |
| Dudhi | <i>Wightia</i> spp. | DUD |
| Ebony | <i>Diospyros</i> spp. (Other than <i>D. marmorata</i>) | EBO |
| Elm | <i>Ulmus wallichiana</i> | ELM |
| Gardenia | <i>Gardenia</i> spp. | GAR |
| Garuga | <i>Garuga pinnata</i> | GAU |
| Gamari | <i>Gmelina arborea</i> | GAM |
| Gluta | <i>Gluta travancorica</i> | GLU |
| Gurjan | <i>Dipterocarpus</i> spp. | GUR |
| Haldu | <i>Adina cordifolia</i> | HAL |
| Haldu Sopa | <i>Adina oligocephala</i> | HSO |
| Hathipaila | <i>Pterosperrnum acerifolium</i> | HAT |
| Hill Mahua | <i>Diploknema butyracea</i> | HMA |
| Hiwar | <i>Acacea leucophloea</i> | HIW |
| Hollock | <i>Terminalia myriocarpa</i> | HOL |
| Hollong | <i>Dipterocarpus macrocarpus</i> | HON |
| Hoom | <i>Milium tomentosum</i> (Syn. <i>Saccopetalum tomentosum</i>) | HOO |
| Hopea | <i>Hopea</i> spp. | HOP |
| Horse Chestnut | <i>Aesculus indica</i> | HCH |
| Indian Chestnut | <i>Castanopsis</i> spp. | ICH |
| Indian Oak | <i>Quercus</i> spp. | IOA |
| Irul | <i>Xylia xylocarpa</i> | IRU |
| Israeli Babul | <i>Acacia tortilis</i> | IBA |
| Jaman | <i>Syzygium</i> spp. | JAM |
| Jarul | <i>Lagerstroemia speciosa</i> | JAR |
| Jathikai | <i>Knema attenuata</i> | JAT |
| Jhand | <i>Prosopis cineraria</i> | JHA |
| Jhingan | <i>Lannea coromandelica</i> (Syn. <i>L. grandis</i>) | JHI |

| <i>Standard Trade Name</i> | <i>Botanical Name</i> | <i>Abbreviated Symbol</i> |
|----------------------------|-----------------------------------|---------------------------|
| Jungali Nimbu | <i>Atalantia monophylla</i> | JNI |
| Jutili | <i>Altingia excelsa</i> | JUT |
| Kadam | <i>Anthocephalus cadamba</i> | KAD |
| Kaim | <i>Mitragyna parvifolia</i> | KAI |
| Kainji | <i>Litsea wightiana</i> | KAJ |
| Kala-siris | <i>Albizia odoratissima</i> | KSI |
| Kanju | <i>Heloptelea integrifolia</i> | KAN |
| Karanji | <i>Pongamia pinnata</i> | KRN |
| Karol | <i>Mesua floribunda</i> | KAO |
| Kathal | <i>Artocarpus integrifolius</i> | KAT |
| Karani | <i>Cullenia exelsa</i> | KAR |
| Kasi | <i>Bridelia</i> spp. | KAS |
| Keora | <i>Sonneratia apetala</i> | KEO |
| Khair | <i>Acacia catechu</i> | KHA |
| Kindal | <i>Terminalia paniculata</i> | KIN |
| Kokko | <i>Albizia lebeck</i> | KOK |
| Kumbi | <i>Careya arborea</i> | KUM |
| Kurchi | <i>Holarrhena antidysenterica</i> | KUR |
| Kusum | <i>Schleichera oleosa</i> | KUS |
| Kuthan | <i>Hymenodictyon excelsum</i> | KUT |
| Lakooch | <i>Artocarpus lakoocha</i> | LAK |
| Lampati | <i>Duabanga sonneratioides</i> | LAP |
| Laural | <i>Terminalia alata</i> | LAU |
| Lemon-scented Gum | <i>Eucalyptus citriodora</i> | LGU |
| Lendi | <i>Legerstroemia parviflora</i> | LEN |
| Machilus | <i>Machilus</i> spp. | MAC |
| Mahogany | <i>Swietenia</i> spp. | MAG |
| Mahua | <i>Madhuca longifolia</i> | MAU |
| Makai | <i>Shorea assamica</i> | MAK |
| Mango | <i>Mangifera indica</i> | MAN |
| Maple | <i>Accr</i> spp. | MAP |
| Mesua | <i>Mesua ferrea</i> | MES |
| Milla | <i>Vitex</i> spp. | MIL |
| Mulberry | <i>Morus</i> spp. | MUL |
| Myrobalan | <i>Terminalia chebula</i> | MYR |
| Mullilam | <i>Zanthoxylum rhetsa</i> | MUI |
| Mundani | <i>Acrocarpus fraxinifolius</i> | MUN |
| Murtenga | <i>Bursera serrata</i> | MUR |
| Mysore Gum | <i>Eucalyptus tereticornis</i> | MGU |
| Narikel | <i>Pterygota alata</i> | NAR |
| Neem | <i>Azadirachta indica</i> | NEE |
| Nimi-chambeli | <i>Milingtonia hortensis</i> | NCH |
| Oak | <i>Quercus semicarpifolia</i> | OAK |
| Olive | <i>Olea</i> spp. | OLI |
| Padauk | <i>Pterocarpus dalbergioides</i> | PAA |
| Padri | <i>Stereospermum</i> spp. | PAD |

| <i>Standard Trade Name</i> | <i>Botanical Name</i> | <i>Abbreviated Symbol</i> |
|----------------------------|--|---------------------------|
| Pali | <i>Palaquium ellipticum</i> | PAL |
| Parrotia (Pohu) | <i>Parrotiopsis jacquemontiana</i> | PAR |
| Persian lilac | <i>Melia azedarach</i> | PLI |
| Pipli | <i>Exbucklandia populnea</i> | PIP |
| Piney | <i>Hardwickia pinnata</i> | PIN |
| Ping | <i>Cynometra polyandra</i> | PIG |
| Pitraj | <i>Aphanami is polystachya</i> | PIT |
| Poon | <i>Calophyllum spp.</i> | POO |
| Pussur | <i>Xylocarpus spp.</i> | PUS |
| Pyinma | <i>Lagerstroemia hypoleuca</i> | PYI |
| Raini | <i>Mallotus philippensis</i> | RAI |
| Red Bombwe | <i>Planchonia andamanica</i> | RBO |
| Red Dhup | <i>Parishia insignis</i> | RDH |
| River-red Gum | <i>Eucalyptus camaldulensis</i> | RGU |
| Rohini | <i>Soymida febrifuga</i> | ROH |
| Rosewood | <i>Dalbergia latifolia</i> | ROS |
| Rubberwood | <i>Hevea brasiliensis</i> | RUB |
| Rudrak | <i>Elaeocarpus spp.</i> | RUD |
| Safed Siris | <i>Albizia procera</i> | SSI |
| Sal | <i>Shorea robusta</i> | SAL |
| Salai | <i>Boswellia serrata</i> | SAA |
| Sandan | <i>Ougeinia dalbergioides</i> | SAD |
| Satinwood | <i>Chloroxylon swietenia</i> | SAT |
| Semul | <i>Bembax ceiba</i> | SEM |
| Sianahor (Kayea) | <i>Mesua assamica</i> (Syn. <i>Kayea assamica</i>) | SIA |
| Silver Oak | <i>Grevillea robusta</i> | SOA |
| Siris | <i>Albizia chinensis</i> | SIR |
| Sissoo | <i>Dalbergia sissoo</i> | SIS |
| Suhabul | <i>Leucaena leucocephala</i> | SUB |
| Sundri | <i>Heritiera spp.</i> | SUN |
| Talura | <i>Shorea talura</i> | TLR |
| Taprie Siris | <i>Albizia spp.</i> | TSI |
| Tali | <i>Palaquium polyanthum</i> | TAL |
| Teak | <i>Tectona grandis</i> | TEA |
| Thingan | <i>Hopea odorata</i> | THI |
| Thitmin | <i>Podocarpus merifolia</i> | THT |
| Toon | <i>Cedrela toona</i> | TOO |
| Uriam | <i>Bischofia javanica</i> | URI |
| Vellapine | <i>Vateria indica</i> | VEL |
| White Bombwe | <i>Terminalia procera</i> | WBO |
| White Cedar | <i>Dysoxylum malabaricum</i> | WCE |
| White Chuglam | <i>Terminalia bialatu</i> (sapwood) | WCH |
| White Dhup | <i>Canarium spp.</i> | WDH |
| Willow | <i>Salix spp.</i> | WIL |
| Yew | <i>Taxus baccata</i> | YEW |
| Yon | <i>Anogeissus acuminata</i> | YON |

ANNEX B

(Clause 4)

IMPORTED TIMBERS

| SI No. | Standard Trade Name | Botanical Name | Abbreviated Symbols | Country from Where Imported* |
|--------|------------------------|--|---------------------|------------------------------|
| (1) | (2) | (3) | (4) | (5) |
| 1. | Abura | <i>Mitragyna stipulosa</i> | ABU | A |
| 2. | African padauk | <i>Pterocarpus soyauxii</i> | APA | A |
| 3. | Afrormosia | <i>Afrormosia angolensis</i> | AFR | A |
| 4. | Alan Batu | <i>Shorea albida</i> | ABA | M |
| 5. | Amoora | <i>Amoora cucullata</i> | AMO | PNG |
| 6. | Balau (Selangan Batu)† | <i>Shorea atrinervosa</i> , <i>S. foxworthyi</i> , <i>S. glauca</i> , <i>S. laevis</i> , <i>S. materialis</i> , <i>S. maxwelliana</i> , <i>S. submontana</i> and <i>S. sumatrana</i> | BLU | M |
| 7. | Bintangor | <i>Calophyllum biflorum</i> , <i>C. calaba</i> , <i>C. canum</i> , <i>C. coriaceum</i> , <i>C. depressinervosum</i> , <i>C. ferrugineum</i> , <i>C. inophyllode</i> , <i>C. inophyllum</i> , <i>C. macrocarpum</i> , <i>C. pulcherrimum</i> , <i>C. sclerophyllum</i> , <i>C. symingtonianum</i> , <i>C. tetrapterum</i> and <i>C. wallichianum</i> | BIN | M |
| 8. | Cedar Java | <i>Bischofia javanica</i> | CJA | PNG |
| 9. | Dahoma | <i>Newtonia glandulifera</i> and <i>Piptadeniastrum africanum</i> . | DAH | A |
| 10. | Dark-Red Meranti† | <i>Shorea argentifolia</i> , <i>S. curtisii</i> , <i>S. ovata</i> , <i>S. paufiflora</i> and <i>S. platyclados</i> | DME | M |
| 11. | Durian† | <i>Coelostegia borneensis</i> , <i>C. griffithii</i> , <i>Durio carinatus</i> , <i>D. grandiflorus</i> , <i>D. graveolens</i> , <i>D. lowianus</i> , <i>D. malaccensis</i> , <i>D. oxleyanus</i> , <i>D. singaporensis</i> , <i>D. wyatt-smithii</i> , <i>D. zibethinus</i> , <i>Neesia altissima</i> , <i>N. Kostermansiana</i> , <i>N. malayana</i> and <i>N. synandra</i> . | DUR | M |
| 12. | Iroko | <i>Chlorophora excelsa</i> | IRO | A |
| 13. | Kapur | <i>Dryobalanops aromatica</i> , <i>D. beccarii</i> , <i>D. keithii</i> , <i>D. lanceolata</i> , <i>D. oblongifolia</i> and <i>D. rappa</i> | KAU | M |
| 14. | Kempas | <i>Koompassia malaccensis</i> | KEM | M |
| 15. | Keruing† | <i>Dipterocarpus apterus</i> , <i>D. baudii</i> , <i>D. chartaceus</i> , <i>D. concavus</i> , <i>D. confertus</i> , <i>D. cornutus</i> , <i>D. costatus</i> , <i>D. costulatus</i> , <i>D. crinitus</i> , <i>D. dyeri</i> , <i>D. gracilis</i> , <i>D. grandiflorus</i> , <i>D. kerrii</i> , <i>D. kunsileri</i> , <i>D. lowii</i> , <i>D. obtusifolius</i> , <i>D. rotundifolius</i> , <i>D. sublamellatus</i> and <i>D. verrucosus</i> | KER | M |
| 16. | Light-Red Meranti† | <i>Shorea dasyphylla</i> , <i>S. hemsleyana</i> , <i>S. johorensis</i> , <i>S. lepidota</i> , <i>S. leprosula</i> , <i>S. ovalis</i> , <i>S. palembanica</i> , <i>S. parvifolia</i> and <i>S. teysmaniana</i> | LME | M |
| 17. | Merawan† | <i>Hopea beccariana</i> , <i>H. dryobalanoides</i> , <i>H. dyeri</i> , <i>H. ferruginea</i> , <i>H. glaucescens</i> , <i>H. griffithii</i> , <i>H. latifolia</i> , <i>H. mengarawan</i> , <i>H. montana</i> , <i>H. myrtifolia</i> , <i>H. nervosa</i> , <i>H. odorata</i> , <i>H. pubescens</i> , <i>H. sangal</i> , <i>H. sublanceolata</i> and <i>H. sulcata</i> | MER | M |

| Sl No. | Standard Trade Name | Botanical Name | Abbreviated Symbols | Country from Where Imported* |
|--------|-------------------------------|---|---------------------|------------------------------|
| (1) | (2) | (3) | (4) | (5) |
| 18. | Merbatu | <i>Maranthes corymbosa</i> , <i>Parinari costata</i> , <i>P. elmeri</i> , <i>P. oblongifolia</i> , <i>P. rigida</i> and <i>P. rubiginosa</i> | MEB | M |
| 19. | Merbau (Kwila) | <i>Inisia bijuga</i> and <i>I. palembanica</i> | MRB | M, PNG |
| 20. | Mersawa | <i>Anisoptera costata</i> , <i>A. curtisii</i> , <i>A. laevis</i> , <i>A. marginata</i> , <i>A. megistocarpa</i> and <i>A. scaphula</i> | MEA | M |
| 21. | Nyatoht† | <i>Ganua curtisii</i> , <i>G. kingiana</i> , <i>G. motleyana</i> , <i>Palaquium clarkeanum</i> , <i>P. gutta</i> , <i>P. hexandrum</i> , <i>P. hispidum</i> , <i>P. impressinervium</i> , <i>P. maingayi</i> , <i>P. microphyllum</i> , <i>P. obovatum</i> , <i>P. oxleyanum</i> , <i>P. regina-montium</i> , <i>P. rostratum</i> , <i>P. semaram</i> , <i>P. xanthochymum</i> , <i>Pa yena dasphylla</i> , <i>P. lanceolata</i> , <i>P. maingayi</i> and <i>P. obscura</i> | NYA | M |
| 22. | Nyatoh Kuning | <i>Planchonella maingayi</i> and <i>Pouteria malaccensis</i> | NKU | M |
| 23. | Okoume | <i>Aucoumea klaineana</i> | OKO | A |
| 24. | Red Balau | <i>Shorea collina</i> , <i>S. guiso</i> , <i>S. kunstleri</i> and <i>S. ochrophloia</i> | RBA | M |
| 25. | Resakt† | <i>Cotylelobium malayanum</i> , <i>C. melanoxylo</i> , <i>Vatica bella</i> , <i>V. cuspidata</i> , <i>V. flavida</i> , <i>V. havilandii</i> , <i>V. heteroptera</i> , <i>V. lowii</i> , <i>V. maingayi</i> , <i>V. mangachapoi</i> , <i>V. nitens</i> and <i>V. scortechinii</i> | RES | M |
| 26. | Sapele | <i>Entandophragma cylindricum</i> | SAP | A |
| 27. | Terminalia Brown | <i>Terminalia brassii</i> | TBR | PNG |
| 28. | Terminalia Pale Brown Group | <i>Terminalia katikii</i> , <i>T. macadamii</i> , <i>T. oreadum</i> , <i>T. sepicans</i> , <i>T. solomonensis</i> | TPB | PNG |
| 29. | Terminalia Pale Yellow Group | <i>Terminalia archboldiana</i> , <i>T. complanata</i> , <i>T. longespicata</i> | TPY | PNG |
| 30. | Terminalia Red Brown Group | <i>Terminalia canaliculata</i> , <i>T. catapha</i> , <i>T. eddowesii</i> , <i>T. impediens</i> , <i>T. kaernbachii</i> , <i>T. microcarpa</i> , <i>T. morobensis</i> and <i>T. rubiginosa</i> | TRB | PNG |
| 31. | Terminalia Yellow Brown Group | <i>Terminalia megalocarpa</i> , <i>T. steeniana</i> , <i>T. calamansanai</i> | TYB | PNG |
| 32. | Tualang | <i>Koompassia excelsa</i> | TUA | M |
| 33. | Utile | <i>Entandophragma utile</i> | UTI | A |
| 34. | Vitex | <i>Vitex cofassus</i> | VIT | PNG |
| 35. | White Meranti | <i>Shorea agami</i> , <i>S. assamica</i> , <i>S. bracteolata</i> , <i>S. dealbata</i> , <i>S. henryana</i> , <i>S. hypochra</i> , <i>S. lamellata</i> , <i>S. resinosa</i> and <i>S. roxburghii</i> | WME | M |
| 36. | Yellow Meranti | <i>Shorea dolichocarpa</i> , <i>S. faguetiana</i> , <i>S. gibbosa</i> , <i>S. hopeifolia</i> , <i>S. longisperma</i> , <i>S. maxima</i> and <i>S. multiflora</i> | YME | M |

*A — Africa

M — Malaysia

PNG — Papua New Guinea

†Actual species of timber which are marketed under this trade name are many more. But here, only major species have been mentioned.

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