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Test Report No.: 55178112-1E/12

Project No.: 55178112-1E

Client:	ROTEC GmbH & Co. KG Eisenbahnstraße 12 D-56218 Mülheim-Kärlich
Order date:	02.08.2012
Scope of investigation:	External investigation of Type III R oil binder as per LTwS No. 27 (March 1990 version).
Sample type:	Oil-binding agent based on pumice stone
Sample(s) received on:	25.08.2012
Sample designation:	Hybilat N

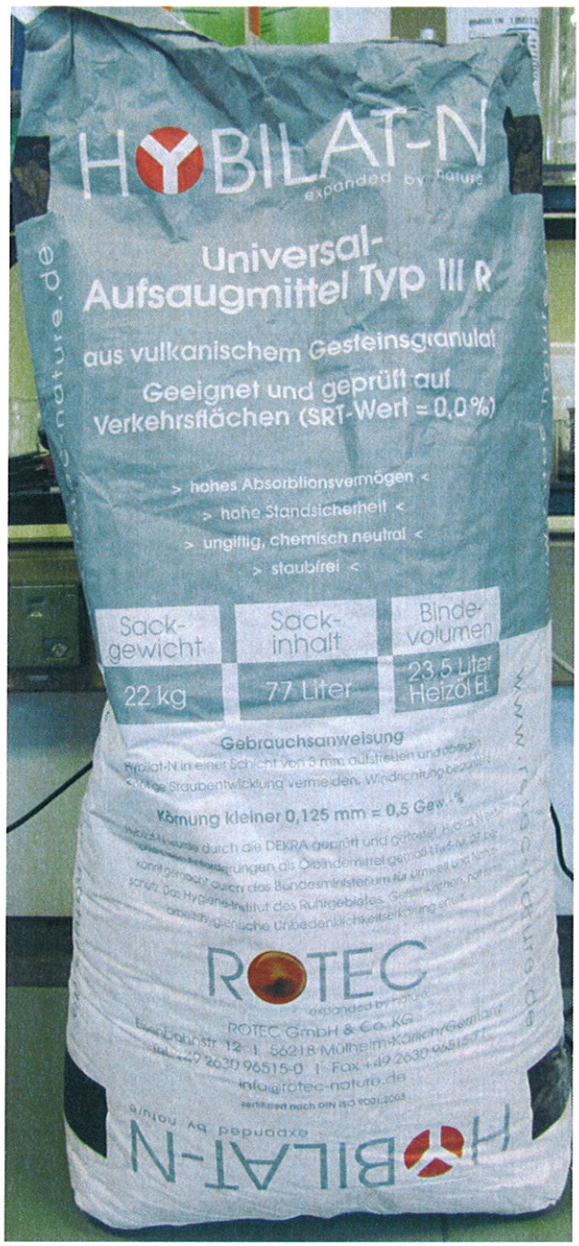
Investigation results:

- see following page/s -

Accredited Analytical Laboratory DAP-PA-2887.99 in Stuttgart and Halle (Saale).

1 Sample designation

Sample number	Product designation
55178112-1E	Hybilat N



Picture 1: Front side of the oil binder

2 Results

2.1 Advisory statement to the safety on occupational medical grounds

There aren´t any concerns regarding work medical aspects for the application of the oil binder.
The content of quartz in the particulate matter is lower than 0.1%.
The environmental testing did not show any negative aspects.

2.2 Manufacturer data on pack and labelling

Labelling requirements	55178112-1E (information on pack)
Labelling	-
Name of oil binder	Hybilat N
Base material	pumice stone
Storage life	
Weight and content	77 litre
Oil-binder requirement	Content binds approx. 23.5 litre oil
Fine fraction (granularity < 0.125 mm)	
Limits set by occupational medicine	not applid
Special instructions	
Name and full address of supplier	existent
Note re: transport	
Note re: adequate cleaning	
Safety data sheet	existent
Manufacturer's warranty	existent

2.3 Bulk density

Parameter	Unit	Result
Bulk density	kg/m^3	298
Moisture content*	% by wt.	-

*Determination required for moist oil binders only

2.4 Oil-binder requirement

Parameter	Unit	Result
Oil-binder requirement:		
[g] oil binder / 100 g oil	g	120
[ml] oil binder / 100 ml oil	ml	336
1 litre of oil binder binds	g oil	248
Calculated value	% by vol.	336
1 litre of oil binder binds:	litre	0,30
1 kg of oil binder binds:	litre	1,000
1 kg of oil binder binds:	kilograms	0,832

Classification criteria:

Oil binder	Oil-binder requirement
Type I	max. 350 % by vol.
Type II	max. 600 % by vol.
Type III	max. 350 % by vol.

Oil-binder requirement without allowance for additional need (oil-retention capability):

1 litre oil binder binds: 0.29 litre oil

An adjustment with respect to oil-retention capability was necessary in calculating the oil-binder requirement.

2.5 Oil-retention capability

Parameter	Unit	Result
Additional need for oil binder in the load test	% by wt.	9

No more oil was released after 2 hours load time.

2.6 Suitability for circulation areas

Parameter	Unit	Result
Change in SRT	%	0

Maximum permissible change in SRT: 20%

Suitability for circulation areas was tested. The product may be marked as suitable for use as an oil-binding agent for circulation areas.

2.7 Grain-size distribution

Parameter	Unit	Result
Coarse fraction > 4 mm	% by wt.	< 0.1
4 mm - 0.5 mm	% by wt.	97.6
0.5 mm - 0.125 mm	% by wt.	1.2
Fine fraction < 0.125 mm	% by wt.	1.2

Classification basis: Permissible coarse grain (> 4 mm)

Type I	max. 10% by wt.
Type II	max. 10% by wt.
Type III	max. 10% by wt.

3. Overall assessment

The Hybilat N oil binder tested **meets the requirements made of oil binders**, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety Notice of 12th March 1990 (Joint Ministerial Gazette p. 335) for **Type III R** .

This Test Report is valid until **14.June 2018** (for 6 years). It may be renewed in accordance with No. 5 of the requirements (LTwS No. 27).

Note:
The test results relate solely to the specified samples. The Test Report may be reproduced in extract form only with the Test Laboratory's written consent.

Stuttgart, 10. October 2012

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