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TÜVRheinland®
Precisely Right.

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The Netherlands

Report
Project number: 89202177
Report number: 89202177.01br

Received:
A sample of floor covering, entrance mat, marked as**: "113 Master Trax"**;
TÜV sample reference: MT12-36133.01.

Request:
Orientation testing with the purpose to have an indication of the possible achievable classification of burning behaviour according to EN 13501-1:2007.

Test method:
Ignitability (direct impingement of flame) : EN ISO 11925-2.
Reaction to fire (radiant panel) : EN ISO 9239-1.

Results:
See page two and three.

Appendix:
See page four and five.

Statements:
The test results only relate to the behaviour of the test specimens of the examined product under the particular conditions of the test in laboratory conditions; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use. The method might not be suitable if the product is exposed to much larger flames or heat radiant sources.

The validity of this report will expire five years after its issue or directly after alterations or modifications of the examined product (combination)(s) and/or the criteria. This report shall not be reproduced, except in full, without the written approval of the testing laboratory.

Date
3rd of September, 2012

Project number
89202177

Report number
89202177.01br

Phone number client
+31 180 643 115

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+31 180 611 551

Article
Master Trax

Appendix
I : Flooring Radiant Panel Single Specimen Report – 2 pages

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TEST RESULTS

Date
3rd of September, 2012

Project number
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Article
Master Trax

➢ *Identification parameters received from the customer*

Type of manufacture	: Needle punched
Type of use surface	: Patterned
Type of secondary backing	: Synthetic rubber backing
Pile Fibre	: 100% PP*
Total mass per unit area g/m^2	: 3200
Total yarn weight, g/m^2	: 1700
Total thickness, mm	: 11

* = manufacturer's declaration

➢ *Ignitability EN-ISO 11925-2:2010*

Conditioning time, climate	: 3 days, 23 ± 2 °C and 50 ± 5 %
Date of testing	: 6th of August, 2012
Description of substrate	: 6 mm. Fibre cement board, 1800 kg/m^3.
Flame application	: Surface.
Application time	: 15 seconds.

Direction:	In production			Across production		
Total burning time[1](15 s)	15	17	16	15	30	15
Flame tip reaches 150 mm (s)	no	no	no	no	no	no
Extent of damaged area, length (mm)	95	124	130	115	108	127
Extent of damaged area, width (mm)	15	18	17	18	17	15
Material melts (yes/no)	yes	yes	yes	yes	yes	yes
Shrinks away[2] (yes/no)	yes	yes	yes	yes	yes	yes
Glowing[3](sec)	no	no	no	no	no	no
Flaming debris (yes/no)	no	no	no	no	no	no
Ignition of filter paper (yes/no)	no	no	no	no	no	no

1 Inclusive a flame application time of 15 or 30 seconds with surface or edge impingement
2 Shrinks away from flame without being ignited
3 The time at which it occurs and its duration

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TEST RESULTS – follow-up

➢ *Radiant Panel test ISO 9239-1:2010*

Date of testing	: 6th of August 2012
Conditioning time, climate	: 3 days, 23 ± 2 °C and 50 ± 5 %
Description of substrate	: Fibre cement board, 8±2 mm ,1800±200 kg/m^3 conforming to EN 13238.
Sampling procedure	: By contractor.
Description of cleaning used	: None.
Fixing method	: None, loose laid.

Test specimen, orientation	Flame spread (cm)	HF (kW/m^2)	Peak light attenuation (%)	Smoke production (%.min)
1, ↑	100.0	≤1.79	99.5	806

Remarks: no flashing, transitory- or sustained flaming,
severe production of black smoke, fast flame spread, manually extinguished.

Conclusion

According to EN 13501-1 the recorded HF-value would imply it would **not** meet the D_{fl} criteria, the smoke production would indicate a s2 class. It is only indicative, and based on one sample, while four samples are required for a final classification.

Due to the result of testing to the EN-ISO 11925-2:2010 a classification of $\mathbf{E_{fl}}$ is achieved.

Author:
Mrs. I. Pierik

Review:
Mr. J. Brinks

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APPENDIX I: Flooring Radiant Panel Single Specimen Report

Date
3rd of September, 2012

Project number
89202177

Report number
89202177.01br

Article
Master Trax

Flooring Radiant Panel Single Specimen Report

Standard	: EN ISO 9239-1:2002
Laboratory	: TÜV Rheinland Nederland B.V.
Sponsor	: 89202177- SMG - Master Trax - ipk
Date of test	: Aug. 06 2012
Specimen description	: MT12-36133.01
Test name	: Prod #1
File name	: D:\FRPFILES\12080007.CSV
Test number in series	: 4
Flux calibration file name	: C:\FRPSOFT\CALIB\FLX12008.CSV
Thickness (mm)	:
Density (kg/m³)	:
Test duration	: 17 minutes 55 seconds (1075 s)
Substrate used?	: Yes
Substrate	: Calcium silicate
Fixing method	: none
Conditioned?	: Yes
Conditioning temp. (°C)	: 23
Conditioning RH (%)	: 50

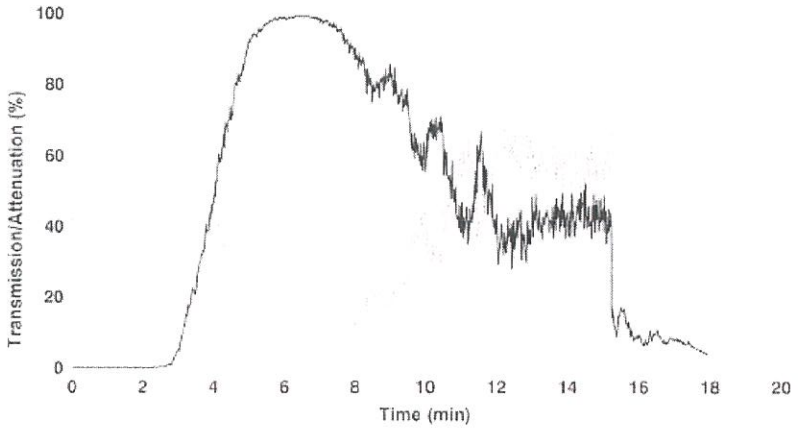
Test Results

Time to ignition	: 2 minutes 04 seconds (124 s)
Time to flameout	: Not recorded
Extent of burning (mm)	: 1000
Critical flux at extinguishment (kW/m²)	: N/A (no flameout)
HF-10 (kW/m²)	: 1.79
HF-20 (kW/m²)	: >= 10.9
HF-30 (kW/m²)	: >= 10.9
Flame spread at 10 minutes (mm)	: 710
Flame spread at 20 minutes (mm)	: -1
Flame spread at 30 minutes (mm)	: -1
Peak light attenuation (%)	: 99.46
Time to peak light attenuation	: 6 minutes 37 seconds (397 s)
Total integrated smoke (%.min)	: 805.52
Potential classification	**: E(fl)**
Smoke production classification	**: s2**

These results relate only to the behaviour of the specimens of the product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

APPENDIX I: Flooring Radiant Panel Single Specimen Report

Smoke Graph



Test name : Prod #1
File name : D:\FRPFILES\12080007.CSV

Rake Results

Position (mm)	Time (s)	Flux (kW/m²)	Qsb (MJ/m²)	Position (mm)	Time (s)	Flux (kW/m²)	Qsb (MJ/m²)
60	196	11.2	2.038	510	375	3.6	1.107
110	231	10.4	2.241	560	396	3.0	0.960
160	252	9.7	2.239	610	436	2.4	0.906
210	282	8.9	2.239	660	517	2.1	0.926
260	284	7.9	2.003	710	601	1.8	0.925
310	304	7.1	1.836	760	620	1.5	0.835
360	320	6.0	1.633	810	736	1.3	0.889
410	343	5.1	1.468	860	834	1.2	0.926
460	352	4.3	1.266	910	863	1.1	0.863

Comments

Specimen was extinguished manually after end of test.