TÜV Rheinland Nederland B.V.

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TÜV Rheinland Nederland B.V.
The Netherlands

Postal address:
P.O. Box 2220
6802 CE ARNHEM

Parking and delivery:
Westervoortsedijk 73
6827 AV ARNHEM

www.tuv.com/nl

T +31 88 888 7888

Jaring.de.Wolff@nl.tuv.com

Return address: P.O. Box 2220, 6802 CE ARNHEM, The Netherlands

Unifloor Underlay Systems
Att. Mr. F. Vousten
Arnsbergstraat 4
7418 EZ DEVENTER
The Netherlands

Testreport

Project number: 89210247
Report number: 89210247.01br

Date
03/02/2017

Project number
89210247

Report number
89210247.01br

Phone number client
+31 (0) 570 85 55 33

Fax number client
+31 (0) 570 85 55 44

Received:
A floor covering combination (underlay system, glue and floorcovering), marked as: **"Jumpax Prefab, Jumpax Nature with 4 mm CocoFloor"**;
TÜV-reference: MT16-117021.16

Sampling procedure:
The samples are selected by the applicant. The test house has had no influence on the sampling procedure.

The samples have been received on 15/12/2016.

Article
Jumpax Prefab, Jumpax Nature with 4 mm CocoFloor

Order:
Classification of burning behaviour according to EN 13501-1:2007+ A1:2009.

Test methods: Ignitability of products subjected to direct impingement of flame (ISO 11925-2:2010/C1:2011) and determination of the burning behaviour using a radiant heat source (ISO 9239-1:2010)

Appendix
I : Flooring Radiant Panel Single Specimen Report – 6 pages

Results:
See page three and four.

Appendix:
See page five up to and including ten.

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Article
Jumpax Prefab, Jumpax Nature with 4 mm CocoFloor

PRODUCT IDENTIFICATION

Applicant	: Unifloor Underlay Systems
Name	: Jumpax Prefab, Jumpax Nature with 4 mm CocoFloor *
Tested in combination with	: Prefab Tapis 10mm*
Production direction	: No production direction applicable*
Total thickness (mm)	: 30.8**
Total mass (gr/m^2)	: 15865**
Density (kg/m^3)	: 514**

** Applicant's declaration*
*** Determination by the test house after conditioning to constant mass is achieved.*

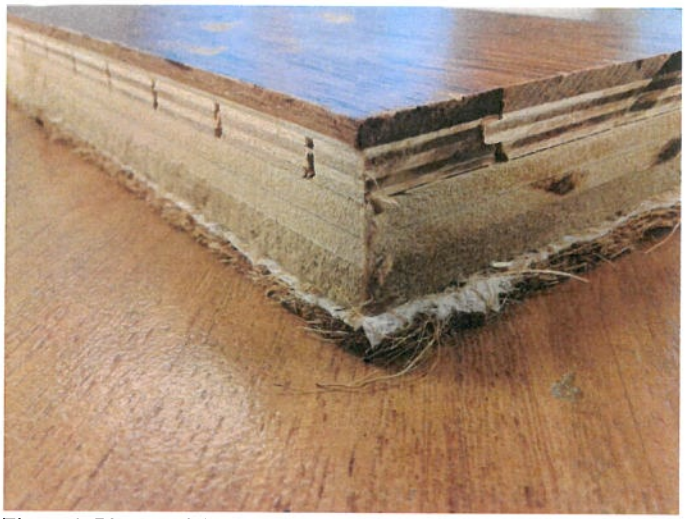

Figure 1, Picture of the received sample

TEST RESULTS

Ignitability of products subjected to direct impingement of flame
Method EN ISO 11925-2 :2010/C1:2011

Date of testing : 03/01/2017
Conditioning time, climate : ≥ 7 days, 23±2 °C and 50±5 %
Description of substrate : Fibre cement board, 8±2 mm, 1800±200 kg/m³ conforming to EN 13238.
Flame application : Surface.
Flame application time : 15 seconds.

Orientation:			
Total burning time[1]	15	15	15
Flame tip reaches 150 mm (s)	No	No	No
Extent of damaged area, length (mm)	50	50	50
Extent of damaged area, width (mm)	12	10	10
Material melts (yes/no)	Yes	Yes	Yes
Shrinks away[2] (yes/no)	No	No	No
Glowing[3](sec)	No	No	No
Flaming debris (yes/no)	No	No	No
Ignition of filter paper (yes/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

Determination of the burning behaviour using a radiant heat source
Method EN ISO 9239-1:2010

Date of testing : 09/01/2017 and 11/01/2017
Conditioning time, climate : ≥ 7 days, 23±2 °C and 50±5 %
Description of substrate : Fibre cement board, 8±2 mm, 1800±200 kg/m³ conforming to EN 13238.
Sampling procedure : By contractor.
Description of cleaning used : None.
Fixing method : None, sample is tested loose laid on the substrate.

Test specimen	Flame spread (cm)	CRF (kW/m²)	Peak light attenuation (%)	Smoke production (%.min)
1	31.0	7.5	3.1	12
2	38.0	6.0	3.0	9
3	39.0	5.7	1.5	7
Mean	**36.0**	**6.4**	**2.5**	**9**

Note: according the manufacturers declaration there is no production direction applicable, therefore three samples are sufficient for classification.
Specimen 1, 2, and 3: No flashing, transitory- or sustained flaming are observed.
Specimen 1, 2, and 3: Extinguished manually after the end of the test duration

CONCLUSION

According to EN 13501-1:2007+ A1:2009 the tested sample of the aforementioned quality **"Jumpax Prefab, Jumpax Nature with 4 mm CocoFloor"**, in relation to its reaction to fire behaviour is classified: $\mathbf{C_{fl}}$.
The additional classification in relation to smoke production is: **s1.**

The aforementioned quality meets the requirement of reaction to fire classification: $\mathbf{C_{fl} - s1}$

The classification is valid for the following end use applications:
- End use substrates of classes A1 and A2-s1,d0.
- Any way of fixation, glued down or loose laid.

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 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.

This document does not represent type approval or certification of the product.

Author:
Mr. M.A. van de Vlekkert

Review:
Mr. J. de Wolff

(End of report)

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APPENDIX I: Flooring Radiant Panel Single Specimen Report

Flooring Radiant Panel Single Specimen Report

Standard	: EN ISO 9239-1:2010
Laboratory	: TÜV Rheinland Nederland B.V.
Sponsor	: 89210247 Unifloor
Date of test	: Jan. 09 2017
Specimen description	: MT16-117021.16 Jumpax Prefab / Jumpax Nature
Test name	: # sample 1
File name	: D:\FRPFILES\17010030.CSV
Test number in series	: 3
Flux calibration file name	: C:\FRPSOFT2.9A\CALIB\FLX16016.CSV
Thickness (mm)	: 30.8
Density (kg/m³)	: 514
Test duration	: 30 minutes (1800 s)
Substrate used?	: Yes
Substrate	: Calcium silicate
Fixing method	: None (loose laid)
Conditioned?	: Yes
Conditioning temp. (°C)	: 23
Conditioning RH (%)	: 50

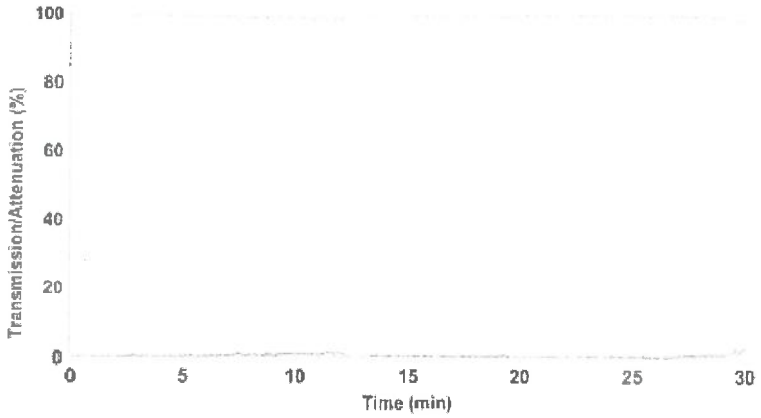
Test Results

Time to ignition	: 2 minutes 04 seconds (124 s)
Time to flameout	: 30 minutes (1800 s)
Extent of burning (mm)	: 310
Critical flux at extinguishment (kW/m²)	: 7.49
HF-10 (kW/m²)	: 10.10
HF-20 (kW/m²)	: 7.86
HF-30 (kW/m²)	: 7.49
Flame spread at 10 minutes (mm)	: 150
Flame spread at 20 minutes (mm)	: 290
Flame spread at 30 minutes (mm)	: 310
Peak light attenuation (%)	: 3.06
Time to peak light attenuation	: 29 minutes 57 seconds (1797 s)
Total integrated smoke (%.min)	: 12.32
Potential classification	**: C(fl)**
Smoke production classification	**: s1**

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 : # sample 1
File name : D:\FRPFILES\17010030.CSV

Rake Results

Position (mm)	Time (s)	Flux (kW/m²)	Qsb (MJ/m²)	Position (mm)	Time (s)	Flux (kW/m²)	Qsb (MJ/m²)
60	320	11.1	3.544	510	-	3.7	-
110	486	10.5	5.095	560	-	3.1	-
160	681	10.0	6.810	610	-	2.6	-
210	830	9.4	7.800	660	-	2.2	-
260	1030	8.4	8.663	710	-	1.9	-
310	1359	7.5	10.172	760	-	1.6	-
360	-	6.4	-	810	-	1.4	-
410	-	5.3	-	860	-	1.2	-
460	-	4.4	-	910	-	1.1	-

Comments

Specimen was extinguished manually after end of test.

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Flooring Radiant Panel Single Specimen Report

Standard	: EN ISO 9239-1:2010
Laboratory	: TÜV Rheinland Nederland B.V.
Sponsor	: 89210247 Unifloor
Date of test	: Jan. 09 2017
Specimen description	: MT16-117021.16 Jumpax Prefab / Jumpax Nature
Test name	: # sample 2
File name	: D:\FRPFILES\17010031.CSV
Test number in series	: 3
Flux calibration file name	: C:\FRPSOFT2.9A\CALIB\FLX16016.CSV
Thickness (mm)	: 30.8
Density (kg/m³)	: 514
Test duration	: 30 minutes (1800 s)
Substrate used?	: Yes
Substrate	: Calcium silicate
Fixing method	: None (loose laid)
Conditioned?	: Yes
Conditioning temp. (°C)	: 23
Conditioning RH (%)	: 50

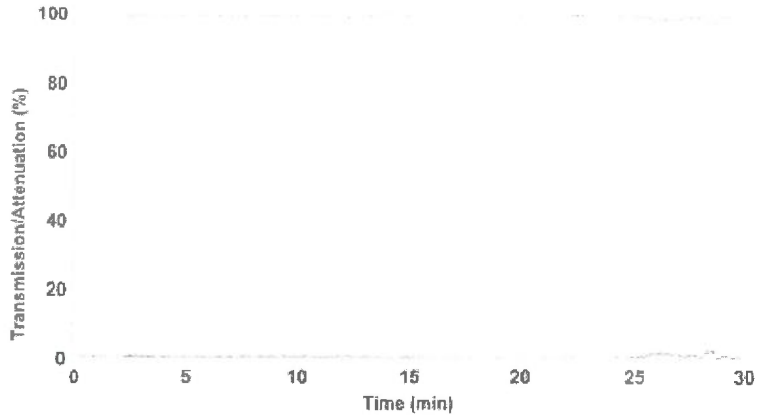
Test Results

Time to ignition	: 2 minutes 04 seconds (124 s)
Time to flameout	: 30 minutes (1800 s)
Extent of burning (mm)	: 380
Critical flux at extinguishment (kW/m²)	: 5.95
HF-10 (kW/m²)	: 10.10
HF-20 (kW/m²)	: 7.49
HF-30 (kW/m²)	: 5.95
Flame spread at 10 minutes (mm)	: 150
Flame spread at 20 minutes (mm)	: 310
Flame spread at 30 minutes (mm)	: 380
Peak light attenuation (%)	: 2.99
Time to peak light attenuation	: 28 minutes 15 seconds (1695 s)
Total integrated smoke (%.min)	: 8.78
Potential classification	**: C(fl)**
Smoke production classification	**: s1**

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 : # sample 2
File name : D:\FRPFILES\17010031.CSV

Rake Results

Position (mm)	Time (s)	Flux (kW/m²)	Qsb (MJ/m²)	Position (mm)	Time (s)	Flux (kW/m²)	Qsb (MJ/m²)
60	343	11.1	3.799	510	-	3.7	-
110	458	10.5	4.801	560	-	3.1	-
160	677	10.0	6.770	610	-	2.6	-
210	834	9.4	7.838	660	-	2.2	-
260	1065	8.4	8.958	710	-	1.9	-
310	1203	7.5	9.004	760	-	1.6	-
360	1669	6.4	10.627	810	-	1.4	-
410	-	5.3	-	860	-	1.2	-
460	-	4.4	-	910	-	1.1	-

Comments

Specimen was extinguished manually after end of test.

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APPENDIX I: Flooring Radiant Panel Single Specimen Report

Flooring Radiant Panel Single Specimen Report

Standard	: EN ISO 9239-1:2010
Laboratory	: TÜV Rheinland Nederland B.V.
Sponsor	: 89210247 Unifloor
Date of test	: Jan. 11 2017
Specimen description	: MT16-117021.16 Jumpax Prefab / Jumpax Nature
Test name	: # sample 3
File name	: D:\FRPFILES\17010032.CSV
Test number in series	: 3
Flux calibration file name	: C:\FRPSOFT2.9A\CALIB\FLX16016.CSV
Thickness (mm)	: 30.8
Density (kg/m³)	: 514
Test duration	: 30 minutes (1800 s)
Substrate used?	: Yes
Substrate	: Calcium silicate
Fixing method	: None (loose laid)
Conditioned?	: Yes
Conditioning temp. (°C)	: 23
Conditioning RH (%)	: 50

Test Results

Time to ignition	: 2 minutes 03 seconds (123 s)
Time to flameout	: 30 minutes (1800 s)
Extent of burning (mm)	: 390
Critical flux at extinguishment (kW/m²)	: 5.74
HF-10 (kW/m²)	: 10.39
HF-20 (kW/m²)	: 7.86
HF-30 (kW/m²)	: 5.74
Flame spread at 10 minutes (mm)	: 120
Flame spread at 20 minutes (mm)	: 290
Flame spread at 30 minutes (mm)	: 390
Peak light attenuation (%)	: 1.46
Time to peak light attenuation	: 12 minutes 05 seconds (725 s)
Total integrated smoke (%.min)	: 6.91
Potential classification	**: C(fl)**
Smoke production classification	**: s1**

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

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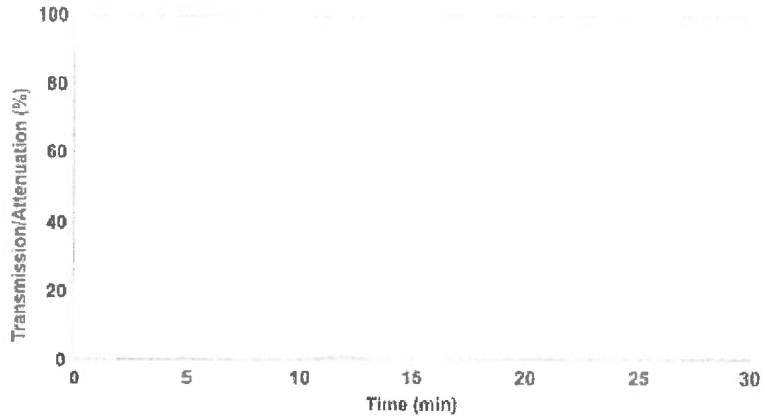
Smoke Graph



Test name : #sample 3
File name : D:\FRPFILES\17010032.CSV

Rake Results

Position (mm)	Time (s)	Flux (kW/m²)	Qsb (MJ/m²)	Position (mm)	Time (s)	Flux (kW/m²)	Qsb (MJ/m²)
60	343	11.1	3.799	510	-	3.7	-
110	512	10.5	5.367	560	-	3.1	-
160	720	10.0	7.200	610	-	2.6	-
210	901	9.4	8.468	660	-	2.2	-
260	1063	8.4	8.941	710	-	1.9	-
310	1353	7.5	10.127	760	-	1.6	-
360	1542	6.4	9.818	810	-	1.4	-
410	-	5.3	-	860	-	1.2	-
460	-	4.4	-	910	-	1.1	-

Comments

Specimen was extinguished manually after end of test.