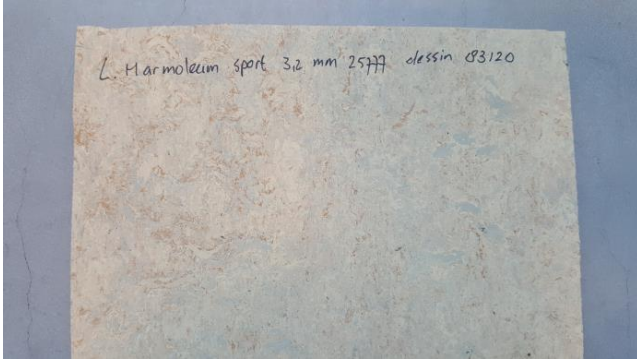
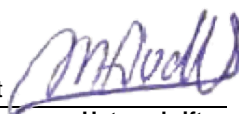
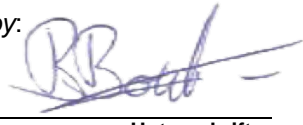


Prüfbericht-Nr.: <i>Test Report No.:</i>	89216383.02br	Auftrags-Nr.: <i>Order No.:</i>	106549	Seite 1 von 14 <i>Page 1 of 14</i>	
Kunden-Referenz-Nr.: <i>Client Reference No.:</i>	4501087176	Auftragsdatum: <i>Order date:</i>	09.01.2020		
Auftraggeber: <i>Client:</i>	Forbo Flooring B.V., PO Box 13, 1560 AA Krommenie, The Netherlands				
Prüfgegenstand: <i>Test item:</i>	Resilient floor covering				
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	Marmoleum Sport 3.2 mm				
Auftrags-Inhalt: <i>Order content:</i>	Classification of burning behaviour				
Prüfgrundlage: <i>Test specification:</i>	EN 13501-1:2007+ A1:2009 Classification of burning behaviour <i>Test methods: Ignitability of products subjected to direct impingement of flame (EN ISO 11925-2:2010/C1:2011) and determination of the burning behaviour using a radiant heat source (EN ISO 9239-1:2010)</i>				
Wareneingangsdatum: <i>Date of receipt:</i>	13.01.2020				
Prüfmuster-Nr.: <i>Test sample No.:</i>	MT20-106549.02				
Prüfzeitraum: <i>Testing period:</i>	13.01.2020 - 21.01.2020				
Ort der Prüfung: <i>Place of testing:</i>	Westervoortsedijk 73, 6827 AV Arnhem, Netherlands				
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland Nederland B.V				
Prüfergebnis*: <i>Test result*:</i>	Siehe Sonstiges / See Other				
geprüft von / tested by:	kontrolliert von / reviewed by:				
03.02.2020 M.A. van de Vlekkert 	03.02.2020 R. Boerboom 				
Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>	Unterschrift <i>Signature</i>
Sonstiges / Other:		Test result: See clause 4 on page 5.			
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested					
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>					

v04

Prüfbericht-Nr.: 89216383.02br
Test Report No.:

Seite 2 von 14
 Page 2 of 14

Liste der verwendeten Prüfmittel
List of used test equipment

Prüfmittel <i>Test equipment</i>	Prüfmittel-Nr. / ID-Nr. <i>Equipment No. / ID-No.</i>	Nächste Kalibrierung <i>Next calibration</i>
Flooring Radiant Panel	A00929	20.08.2020
Anemometer	A01989	26.09.2020
Scales	A00769	14.09.2020
Thickness gauge	A00904	17.01.2021
Metal ruler 1	A01759	12.12.2020
Vertical ignitability test cabinet	A01576	N/A
Stopwatch	A01699	11.12.2020
Metal reference plate	A00813	12.12.2020

Prüfbericht-Nr.: 89216383.02br
Test Report No.:

Seite 3 von 14
Page 3 of 14

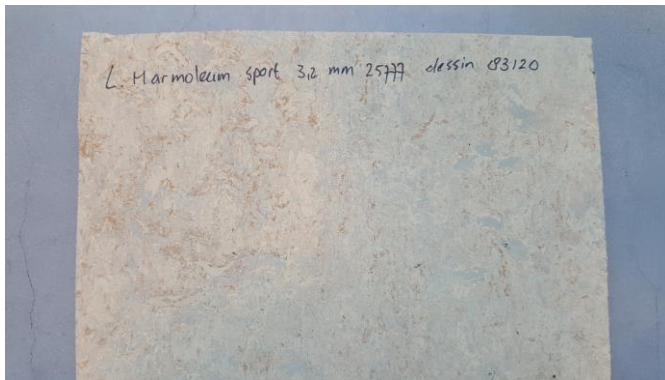
Produktbeschreibung
Product description

Product identity	Marmoleum Sport 3.2 mm*	Dessinnumber	83120*
Batchnumber	25777*		

* applicants declaration

Figure 1, Picture of the received sample (surface)

Figure 2, Picture of the received sample (back)



Prüfbericht-Nr.: 89216383.02br			
Test Report No.:			
Absatz	EN 13501-1:2007+ A1:2009	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

1	Construction data (indicative) of the product obtained by the testlaboratory after pre-conditioning 01-4.3-P.02-322-WI01		
	Test condition	23 ± 2°C and 50 ± 4% relative humidity	
	Pre conditioning, duration	≥ 48 h & until constant mass is achieved	
	Total thickness (mm)	21.2	
	Total mass (g/m ²)	15542	
	Density (kg/m ³)	734	
	<i>Note: the determined construction data are used for determination of constant mass, the used testmethod is not in accordance with the determination of construction data according the specification standard. Therefore the testresults should be handled as indicative.</i>		

2	Ignitability of products subjected to direct impingement of flame EN ISO 11925-2:2010/C1:2011						
	Date of testing	17.01.2020					
	Pre-conditioning, climate	23 ± 2°C and 50 ± 4% relative humidity					
	Pre-conditioning, duration	≥ 48 h & until constant mass is achieved					
	Description of substrate	Particle board, thickness 20 ± 2 mm, density 680 ± 50 kg/m ³ conforming to EN 13238:2010					
	Flame application	Surface					
	Flame application time (s)	15					
	Requirements according EN 13501-1:2007+A1:2009	See clause 5					
	Test result(s)						
	Orientation	Length			Width		
	Test sample	1	2	3	1	2	3
	Ignition of the sample	Yes	Yes	Yes	Yes	Yes	Yes
	Flame tip reached 150 mm above the application point	No	No	No	No	No	No
	Duration after application when the flame tip reached the 150 mm above the application point (s)	N/A	N/A	N/A	N/A	N/A	N/A
	Extent of damaged area, length (mm)	10	9	9	9	8	8
	Extent of damaged area, width (mm)	9	9	9	10	8	9
	Material melts	No	No	No	No	No	No
	Shrinks away from flame without being ignited	No	No	No	No	No	No
	After glowing	No	No	No	No	No	No
Flaming droplets/particles which caused ignition of filter paper	No	No	No	No	No	No	

Prüfbericht-Nr.: 89216383.02br <i>Test Report No.:</i>		Seite 5 von 14 Page 5 of 14	
Absatz	EN 13501-1:2007+ A1:2009	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / <i>Requirements - Tests</i>	<i>Measuring results - Remarks</i>	<i>Evaluation</i>

3	Determination of the burning behaviour using a radiant heat source <i>EN ISO 9239-1:2010</i>					
	Date of testing	17.01.2020 & 21.01.2020				
	Pre-conditioning, climate	23 ± 2°C and 50 ± 4% relative humidity				
	Pre-conditioning, duration	≥ 48 h & until constant mass is achieved				
	Description of substrate	Particle board, thickness 20 ± 2 mm, density 680 ± 50 kg/m ³ conforming to EN 13238:2010				
	Fixing method	The samples are glued to the substrate with Eurocol 614.				
	Requirements according EN 13501-1:2007+ A1:2009	See clause 5				
	Test result(s)					
	Test sample	1	2	3	4	Mean
	Orientation (Length: ↑, Width: T)	↑	T	↑	↑	↑
	Flame spread (cm)	42	38	40	44	42
	CHF / HF-30 (kW/m ²)	5.1	5.8	5.4	4.7	5.1
	Maximum light attenuation (%)	41.3	44.0	41.4	42.3	41.7
	Smoke production (%.min)	331	302	312	330	324
Observations: Specimen 1, 2, 3 and 4: No flashing, transitory- or sustained flaming are observed. Specimen 1, 3 and 4: Extinguished manually after the end of the test duration. Specimen 2: Extinguished naturally before the end of the test duration.						

4	Classification of burning behaviour <i>EN 13501-1:2007+A1:2009</i>	
	The product, Marmoleum Sport 3.2 mm in relation to its reaction to fire behaviour is classified:	C_{fl}
	The additional classification in relation to smoke production is:	s1
	Reaction to fire classification : C_{fl} – s1	
	Field of application <ul style="list-style-type: none"> - As a floor covering in accordance with the nominal product parameters given on page 3. - On end use substrates of wood and of classes A1 and A2-s1,d0 according to EN 13238:2010. - Glued down with Eurocol 614. 	
Statements <ul style="list-style-type: none"> - This document does not represent type approval or certification of the product. - 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 validity of this report will expire directly after alterations or modifications of the examined product (combination)(s) and/or the criteria. 		

Prüfbericht-Nr.: 89216383.02br
Test Report No.:

Seite 6 von 14
Page 6 of 14

Absatz	EN 13501-1:2007+ A1:2009	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

5	Potential classes of reaction to fire performance for floorings			
	EN 13501-1:2007+A1:2009			
	Class	Test method(s)	Classification criteria	
	A1 _{fi}	EN ISO 1182 ^a and	$\Delta T \leq 30 \text{ °C}$; and $\Delta m \leq 50 \%$; and $t_f = 0$ (i.e. no sustained flaming)	-
		EN ISO 1716	$PCS \leq 2.0 \text{ MJ/kg}^a$ and $PCS \leq 2.0 \text{ MJ/m}^2^b$ and $PCS \leq 1.4 \text{ MJ/m}^2^c$ and $PCS \leq 2.0 \text{ MJ/kg}^d$	-
	A2 _{fi}	EN ISO 1182 ^a or	$\Delta T \leq 50 \text{ °C}$ and $\Delta m \leq 50 \%$ and $t_f \leq 20 \text{ s}$	-
		EN ISO 1716 and	$PCS \leq 3.0 \text{ MJ/kg}^a$ and $PCS \leq 4.0 \text{ MJ/m}^2^b$ and $PCS \leq 4.0 \text{ MJ/m}^2^c$ and $PCS \leq 3.0 \text{ MJ/kg}^d$	-
		EN ISO 9239-1 ^e	$CHF \geq 8.0 \text{ kW/m}^2$	Smoke production ^g
	B _{fi}	EN ISO 9239-1 ^e and	$CHF \geq 8.0 \text{ kW/m}^2$	Smoke production ^g
		EN ISO 11925-2 ^h : Exposure = 15 s	$F_s \leq 150 \text{ mm}$ within 20 s	-
	C _{fi}	EN ISO 9239-1 ^e and	$CHF \geq 4.5 \text{ kW/m}^2$	Smoke production ^g
		EN ISO 11925-2 ^h : Exposure = 15 s	$F_s \leq 150 \text{ mm}$ within 20 s	-
	D _{fi}	EN ISO 9239-1 ^e and	$CHF \geq 3.0 \text{ kW/m}^2$	Smoke production ^g
EN ISO 11925-2 ^h : Exposure = 15 s		$F_s \leq 150 \text{ mm}$ within 20 s	-	
E _{fi}	EN ISO 11925-2 ^h : Exposure = 15 s	$F_s \leq 150 \text{ mm}$ within 20 s	-	
F _{fi}	No performance determined			
^a	For homogeneous products and substantial components of non-homogeneous products.			
^b	For any external non-substantial component of non-homogeneous products.			
^c	For any internal non-substantial component of non-homogeneous products.			
^d	For the product as a whole.			
^e	Test duration = 30 min.			
^f	Critical flux is defined as the radiant flux at which the flame extinguishes or the radiant flux after a test period of 30 min, whichever is the lower (i.e. the flux corresponding with the furthest extent of spread of flame).			
^g	s1 = Smoke $\leq 750 \%$ minutes; s2 = not s1.			
^h	Under conditions of surface flame attack and, if appropriate to the end use application of the product, edge flame attack.			

Prüfbericht-Nr.: 89216383.02br
Test Report No.:

Seite 7 von 14
Page 7 of 14

Absatz	EN 13501-1:2007+ A1:2009	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

Report produced with the Fire Testing Technology FRPSoft software

page 1

Flooring Radiant Panel Single Specimen Report

Standard : EN ISO 9239-1:2010
 Laboratory : TÜV Rheinland Nederland B.V.
 Sponsor : Forbo 89216383
 Date of test : Jan. 17 2020

Specimen description : Marmoleum Sport 3.2 mm MT20-106549.02
 Test name : # prod 1
 File name : D:\FRPFILES\20010022.CSV
 Test number in series : 4

Flux calibration file name : C:\FRPSOFT2.9A\CALIB\FLX19003.CSV

Thickness (mm) : 21.2
 Density (kg/m³) : 734

Test duration : 30 minutes (1800 s)
 Substrate used? : Yes
 Substrate : Particle board
 Fixing method : adhesive
 Conditioned? : Yes
 Conditioning temp. (°C) : 23
 Conditioning RH (%) : 50

Test Results

Time to ignition : 2 minutes 05 seconds (125 s)
 Time to flameout : 30 minutes (1800 s)
 Extent of burning (mm) : 420
 Critical flux at extinguishment (kW/m²) : 5.07
 HF-10 (kW/m²) : 8.48
 HF-20 (kW/m²) : 6.45
 HF-30 (kW/m²) : 5.07
 Flame spread at 10 minutes (mm) : 250
 Flame spread at 20 minutes (mm) : 350
 Flame spread at 30 minutes (mm) : 420
 Peak light attenuation (%) : 41.29
 Time to peak light attenuation : 9 minutes 30 seconds (570 s)
 Total integrated smoke (%.min) : 330.89

Potential classification : C(f)
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.

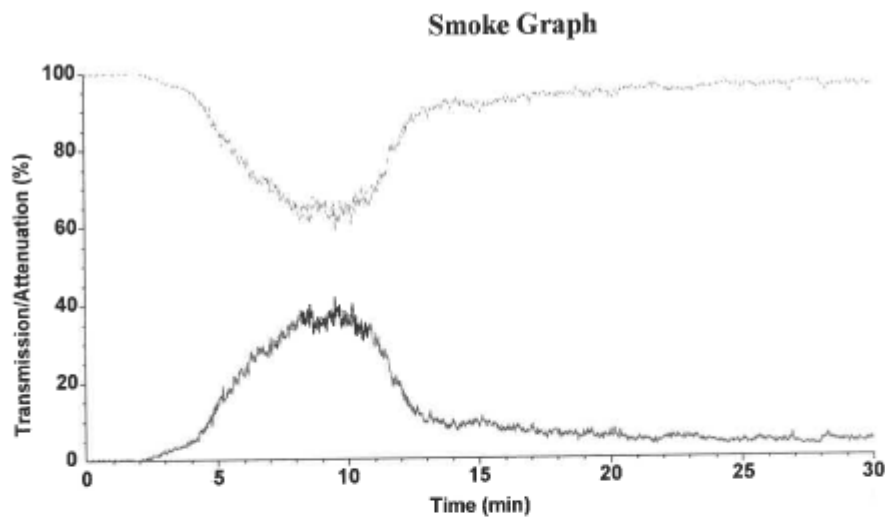
Prüfbericht-Nr.: 89216383.02br
Test Report No.:

Seite 8 von 14
Page 8 of 14

Absatz	EN 13501-1:2007+ A1:2009	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

Report produced with the Fire Testing Technology FRPSoft software

page 2



Test name : # prod 1
File name : D:\FRPFILES\20010022.CSV

Rake Results

Position (mm)	Time (s)	Flux (kW/m ²)	Qsb (MJ/m ²)	Position (mm)	Time (s)	Flux (kW/m ²)	Qsb (MJ/m ²)
60	255	11.1	2.827	510	-	3.7	-
110	353	10.5	3.692	560	-	3.1	-
160	408	9.9	4.057	610	-	2.7	-
210	481	9.3	4.476	660	-	2.3	-
260	669	8.3	5.537	710	-	2.0	-
310	856	7.3	6.255	760	-	1.7	-
360	1305	6.2	8.131	810	-	1.5	-
410	1596	5.2	8.355	860	-	1.3	-
460	-	4.4	-	910	-	1.2	-

Comments

Specimen was extinguished manually after end of test.

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.

Prüfbericht-Nr.: 89216383.02br
Test Report No.:

Seite 9 von 14
Page 9 of 14

Absatz	EN 13501-1:2007+ A1:2009	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

Report produced with the Fire Testing Technology FRPSoft software

page 1

Flooring Radiant Panel Single Specimen Report

Standard : EN ISO 9239-1:2010
 Laboratory : TÜV Rheinland Nederland B.V.
 Sponsor : Forbo 89216383
 Date of test : Jan. 21 2020

Specimen description : Marmoleum Sport 3.2 mm MT20-106549.02
 Test name : # cross 2
 File name : D:\FRPFILES\20010025.CSV
 Test number in series : 4

Flux calibration file name : C:\FRPSOFT2.9A\CALIB\FLX19003.CSV

Thickness (mm) : 21.2
 Density (kg/m³) : 734

Test duration : 28 minutes 58 seconds (1738 s)
 Substrate used? : Yes
 Substrate : Particle board
 Fixing method : adhesive
 Conditioned? : Yes
 Conditioning temp. (°C) : 23
 Conditioning RH (%) : 50

Test Results

Time to ignition : 2 minutes 05 seconds (125 s)
 Time to flameout : 28 minutes 56 seconds (1736 s)
 Extent of burning (mm) : 380
 Critical flux at extinguishment (kW/m²) : 5.83
 HF-10 (kW/m²) : 8.28
 HF-20 (kW/m²) : 6.66
 HF-30 (kW/m²) : Not calculated (test duration < 30 minutes)
 Flame spread at 10 minutes (mm) : 260
 Flame spread at 20 minutes (mm) : 340
 Flame spread at 30 minutes (mm) : Not measured
 Peak light attenuation (%) : 44.01
 Time to peak light attenuation : 8 minutes 08 seconds (488 s)
 Total integrated smoke (%.min) : 301.92

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.

Prüfbericht-Nr.: 89216383.02br
Test Report No.:

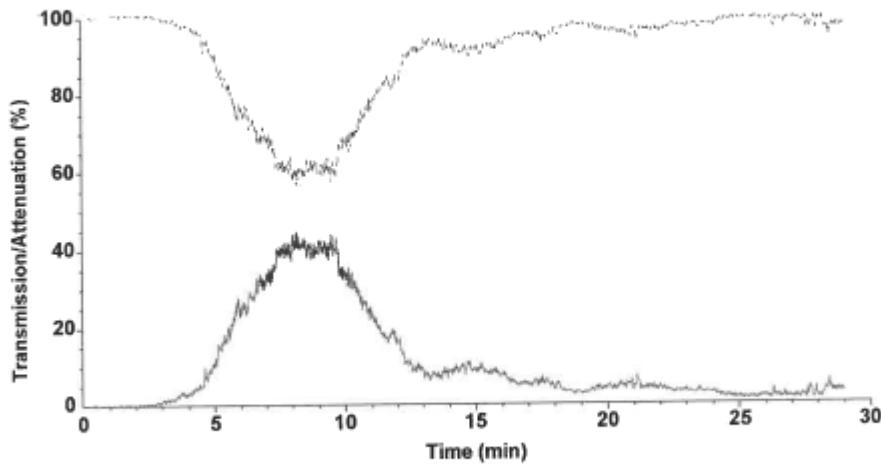
Seite 10 von 14
Page 10 of 14

Absatz	EN 13501-1:2007+ A1:2009	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

Report produced with the Fire Testing Technology FRPSoft software

page 2

Smoke Graph



Test name : # cross 2
File name : D:\FRPFILES\20010025.CSV

Rake Results

Position (mm)	Time (s)	Flux (kW/m ²)	Qsb (MJ/m ²)	Position (mm)	Time (s)	Flux (kW/m ²)	Qsb (MJ/m ²)
60	259	11.1	2.871	510	-	3.7	-
110	336	10.5	3.514	560	-	3.1	-
160	397	9.9	3.947	610	-	2.7	-
210	491	9.3	4.569	660	-	2.3	-
260	594	8.3	4.917	710	-	2.0	-
310	1068	7.3	7.804	760	-	1.7	-
360	1398	6.2	8.711	810	-	1.5	-
410	-	5.2	-	860	-	1.3	-
460	-	4.4	-	910	-	1.2	-

Comments

Specimen extinguished naturally.

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.

Prüfbericht-Nr.: 89216383.02br
Test Report No.:

Seite 11 von 14
Page 11 of 14

Absatz	EN 13501-1:2007+ A1:2009	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

Report produced with the Fire Testing Technology FRPSoft software

page 1

Flooring Radiant Panel Single Specimen Report

Standard : EN ISO 9239-1:2010
 Laboratory : TÜV Rheinland Nederland B.V.
 Sponsor : Forbo 89216383
 Date of test : Jan. 21 2020

Specimen description : Marmoleum Sport 3.2 mm MT20-106549.02
 Test name : # prod 3
 File name : D:\FRPFILES\20010026.CSV
 Test number in series : 4

Flux calibration file name : CA\FRPSoft2.9A\CALIB\FLX19003.CSV

Thickness (mm) : 21.2
 Density (kg/m³) : 734

Test duration : 30 minutes (1800 s)
 Substrate used? : Yes
 Substrate : Particle board
 Fixing method : adhesive
 Conditioned? : Yes
 Conditioning temp. (°C) : 23
 Conditioning RH (%) : 50

Test Results

Time to ignition : 2 minutes 05 seconds (125 s)
 Time to flameout : 30 minutes (1800 s)
 Extent of burning (mm) : 400
 Critical flux at extinguishment (kW/m²) : 5.43
 HF-10 (kW/m²) : 8.69
 HF-20 (kW/m²) : 6.45
 HF-30 (kW/m²) : 5.43
 Flame spread at 10 minutes (mm) : 240
 Flame spread at 20 minutes (mm) : 350
 Flame spread at 30 minutes (mm) : 400
 Peak light attenuation (%) : 41.41
 Time to peak light attenuation : 9 minutes 46 seconds (586 s)
 Total integrated smoke (%.min) : 311.93

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.

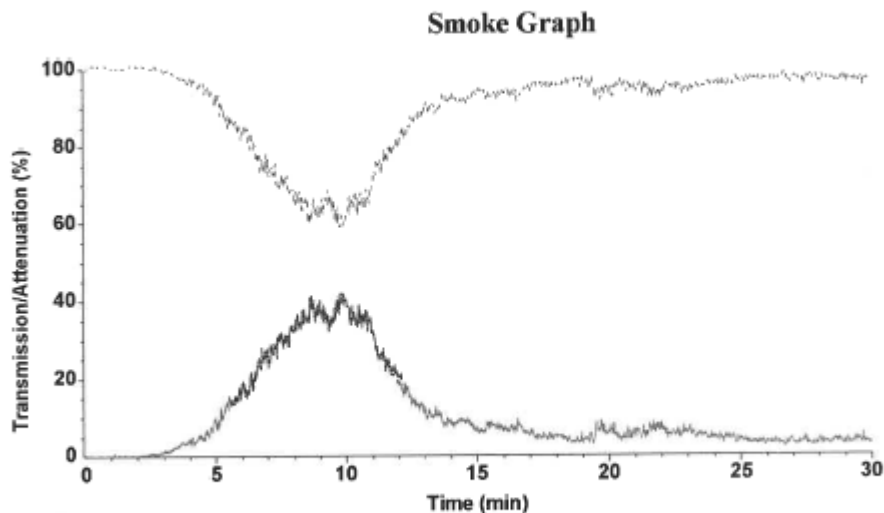
Prüfbericht-Nr.: 89216383.02br
Test Report No.:

Seite 12 von 14
Page 12 of 14

Absatz	EN 13501-1:2007+ A1:2009	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

Report produced with the Fire Testing Technology FRPSoft software

page 2



Test name : # prod 3
File name : D:\FRPFILES\20010026.CSV

Rake Results

Position (mm)	Time (s)	Flux (kW/m ²)	Qsb (MJ/m ²)	Position (mm)	Time (s)	Flux (kW/m ²)	Qsb (MJ/m ²)
60	265	11.1	2.938	510	-	3.7	-
110	372	10.5	3.891	560	-	3.1	-
160	460	9.9	4.574	610	-	2.7	-
210	534	9.3	4.969	660	-	2.3	-
260	717	8.3	5.935	710	-	2.0	-
310	933	7.3	6.817	760	-	1.7	-
360	1265	6.2	7.882	810	-	1.5	-
410	-	5.2	-	860	-	1.3	-
460	-	4.4	-	910	-	1.2	-

Comments

Specimen was extinguished manually after end of test.

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.

Prüfbericht-Nr.: 89216383.02br
Test Report No.:

Seite 13 von 14
Page 13 of 14

Absatz	EN 13501-1:2007+ A1:2009	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

Report produced with the Fire Testing Technology FRPSoft software

page 1

Flooring Radiant Panel Single Specimen Report

Standard : EN ISO 9239-1:2010
 Laboratory : TÜV Rheinland Nederland B.V.
 Sponsor : Forbo 89216383
 Date of test : Jan. 21 2020

Specimen description : Marmoleum Sport 3.2 mm MT20-106549.02
 Test name : # prod 4
 File name : D:\FRPFILES\20010027.CSV
 Test number in series : 4

Flux calibration file name : C:\FRPSOFT2.9A\CALIB\FLX19003.CSV

Thickness (mm) : 21.2
 Density (kg/m³) : 734

Test duration : 30 minutes (1800 s)
 Substrate used? : Yes
 Substrate : Particle board
 Fixing method : adhesive
 Conditioned? : Yes
 Conditioning temp. (°C) : 23
 Conditioning RH (%) : 50

Test Results

Time to ignition : 2 minutes 05 seconds (125 s)
 Time to flameout : 30 minutes (1800 s)
 Extent of burning (mm) : 440
 Critical flux at extinguishment (kW/m²) : 4.74
 HF-10 (kW/m²) : 8.48
 HF-20 (kW/m²) : 5.63
 HF-30 (kW/m²) : 4.74
 Flame spread at 10 minutes (mm) : 250
 Flame spread at 20 minutes (mm) : 390
 Flame spread at 30 minutes (mm) : 440
 Peak light attenuation (%) : 42.32
 Time to peak light attenuation : 8 minutes 20 seconds (500 s)
 Total integrated smoke (%.min) : 329.6

Potential classification : C(II)
 Smoke production classification : s1

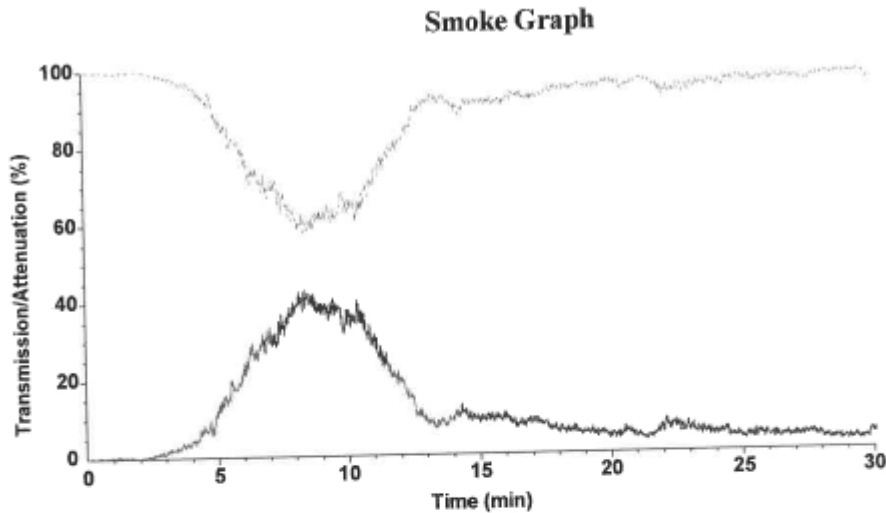
These results relate only to the behaviour of the specimens of the product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

Prüfbericht-Nr.: 89216383.02br
Test Report No.:

Absatz	EN 13501-1:2007+ A1:2009	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

Report produced with the Fire Testing Technology FRPSoft software

page 2



Test name : # prod 4
File name : D:\FRPFILES\20010027.CSV

Rake Results

Position (mm)	Time (s)	Flux (kW/m ²)	Qsb (MJ/m ²)	Position (mm)	Time (s)	Flux (kW/m ²)	Qsb (MJ/m ²)
60	253	11.1	2.805	510	-	3.7	-
110	365	10.5	3.818	560	-	3.1	-
160	413	9.9	4.106	610	-	2.7	-
210	524	9.3	4.876	660	-	2.3	-
260	671	8.3	5.554	710	-	2.0	-
310	811	7.3	5.926	760	-	1.7	-
360	1018	6.2	6.343	810	-	1.5	-
410	1582	5.2	8.282	860	-	1.3	-
460	-	4.4	-	910	-	1.2	-

Comments

Specimen was extinguished manually after end of test.

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.