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Testreport

Project number: 89210170
Report number: 89210170.03br

Date
05/08/2016

Project number
89210170

Report number
89210170.03br

Phone number client
+31 180 643 115

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Received:

A textile floor covering, marked as: "199 Logo Imperial";
TÜV-reference: MT16-114199.03

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 25/07/2016.

Order:

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

Article
199 Logo Imperial

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 – 8 pages

Results:

See page three and four.

Appendix:

See page five up to and including twelve.

TRN applies General Terms & Conditions which are filed at the office of the Clerk for civil affairs at the Court in Zutphen (the Netherlands) under number 35/2010, dated November 17th 2010.

PRODUCT IDENTIFICATION

Applicant : Superior Manufacturing Group- Europe
B.V.
Name : **199 Logo Imperial***
Type of manufacture : Tufted
Type of surface : Cut pile
Pile fibre composition : PA 6.6*

Total thickness (mm) : 7.3**
Total mass (gr/m²) : 3055**
Density (kg/m³) : 417**

* Applicant's declaration

** Determination by the test house after conditioning to constant mass is achieved.

Date
05/08/2016

Project number
89210170

Report number
89210170.03br

Article
199 Logo Imperial

Page
2/12



Figure 1, Picture of the received sample

Date
05/08/2016

Project number
89210170

Report number
89210170.03br

Article
199 Logo Imperial

Page
3/12

TEST RESULTS

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

Date of testing : 04/08/2016
 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:	Length			Width		
Total burning time ¹	15	15	15	15	15	15
Flame tip reaches 150 mm (s)	No	No	No	No	No	No
Extent of damaged area, length (mm)	70	75	62	60	72	68
Extent of damaged area, width (mm)	15	16	16	15	16	15
Material melts (yes/no)	Yes	Yes	Yes	Yes	Yes	Yes
Shrinks away ² (yes/no)	No	No	No	No	No	No
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

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

Date of testing : 04/08/2016
 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, orientation	Flame spread (cm)	CRF (kW/m ²)	Peak light attenuation (%)	Smoke production (%.min)
1, Length	7.0	≥ 10.9	11.5	30
2, Width	8.0	≥ 10.9	11.2	29
3, Width	5.0	≥ 10.9	8.6	17
4, Width	8.0	≥ 10.9	12.7	31
Mean, Width	7.0	≥ 10.9	10.8	26

Specimen 1, 2, 3 and 4: No flashing, transitory- or sustained flaming are observed.

Specimen 1, 2, 3 and 4: Extinguished naturally before the end of the test duration

Date
05/08/2016

Project number
89210170

Report number
89210170.03br

Article
199 Logo Imperial

Page
4/12

CONCLUSION

According to EN 13501-1:2007+ A1:2009 the tested sample of the aforementioned quality “199 Logo Imperial”, in relation to its reaction to fire behaviour is classified: **B_n**.

The additional classification in relation to smoke production is: **s1**.

The aforementioned quality meets the requirement of reaction to fire classification:
B_n – 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.

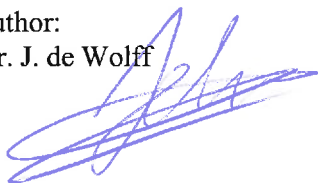
Statements:

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.

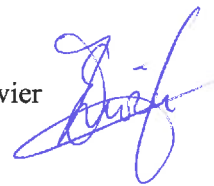
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Author:
Mr. J. de Wolff



Review:
Mrs. E. Zwier



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(End of report)

APPENDIX I: Flooring Radiant Panel Single Specimen Report

Report produced with the Fire Testing Technology FRPSoft software

Date
05/08/2016

Project number
89210170

page 1

Report number
89210170.03br

Article
199 Logo Imperial

Page
5/12

Flooring Radiant Panel Single Specimen Report

Standard : EN ISO 9239-1:2010
Laboratory : TÜV Rheinland Nederland B.V.
Sponsor : SMG 89210170
Date of test : Aug. 04 2016

Specimen description : 199 Logo Imperial MT16-114199.03
Test name : prod #1
File name : D:\FRPFILES\16080001.CSV
Test number in series : 4

Flux calibration file name : C:\FRPSOFT2.9A\CALIB\FLX16010.CSV

Thickness (mm) : 7.3
Density (kg/m³) : 417

Test duration : 12 minutes 05 seconds (725 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 03 seconds (123 s)
Time to flameout : 12 minutes 04 seconds (724 s)
Extent of burning (mm) : 70
Critical flux at extinguishment (kW/m²) : >= 10.9
HF-10 (kW/m²) : >= 10.9
HF-20 (kW/m²) : Not calculated (test duration < 20 minutes)
HF-30 (kW/m²) : Not calculated (test duration < 30 minutes)
Flame spread at 10 minutes (mm) : 70
Flame spread at 20 minutes (mm) : Not measured
Flame spread at 30 minutes (mm) : Not measured
Peak light attenuation (%) : 11.51
Time to peak light attenuation : 4 minutes 58 seconds (298 s)
Total integrated smoke (%.min) : 30.41
Potential classification : A2(fl)/B(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

Report produced with the Fire Testing Technology FRPSoft software

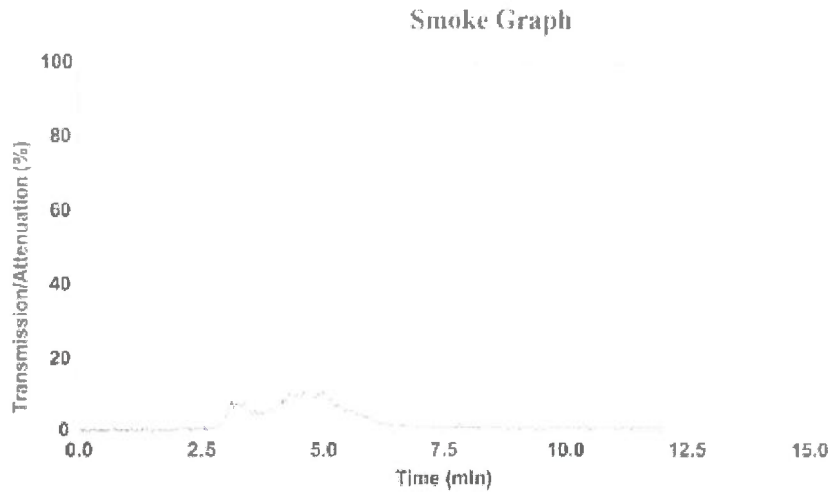
Date
05/08/2016

page 2 **Project number**
89210170

Report number
89210170.03br

Article
199 Logo Imperial

Page
6/12



Test name : prod #1
File name : D:\FRPFILES\16080001.CSV

Rake Results

Position (mm)	Time (s)	Flux (kW/m²)	Qsb (MJ/m²)	Position (mm)	Time (s)	Flux (kW/m²)	Qsb (MJ/m²)
60	335	11.3	3.789	510	-	3.7	-
110	-	10.5	-	560	-	3.1	-
160	-	9.8	-	610	-	2.6	-
210	-	9.0	-	660	-	2.2	-
260	-	8.1	-	710	-	1.9	-
310	-	7.3	-	760	-	1.6	-
360	-	6.3	-	810	-	1.4	-
410	-	5.3	-	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.

APPENDIX I: Flooring Radiant Panel Single Specimen Report

Report produced with the Fire Testing Technology FRPS® software

Date
05/08/2016

Project number
89210170

Report number
89210170.03br

Article
199 Logo Imperial

Page
7/12

Flooring Radiant Panel Single Specimen Report

Standard : EN ISO 9239-1:2010
Laboratory : TÜV Rheinland Nederland B.V.
Sponsor : SMG 89210170
Date of test : Aug. 04 2016

Specimen description : 199 Logo Imperial MT16-114199.03
Test name : cross #2
File name : D:\FRPFILES\16080002.CSV
Test number in series : 4

Flux calibration file name : C:\FRPSOFT2.9A\CALIB\FLX16010.CSV

Thickness (mm) : 7.3
Density (kg/m³) : 417

Test duration : 12 minutes 08 seconds (728 s)
Substrate used? : Yes
Substrate : none
Fixing method : none
Conditioned? : Yes
Conditioning temp. (°C) : 23
Conditioning RH (%) : 50

Test Results

Time to ignition : 2 minutes 03 seconds (123 s)
Time to flameout : 12 minutes 06 seconds (726 s)
Extent of burning (mm) : 80
Critical flux at extinguishment (kW/m²) : ≥ 10.9
HF-10 (kW/m²) : ≥ 10.9
HF-20 (kW/m²) : Not calculated (test duration < 20 minutes)
HF-30 (kW/m²) : Not calculated (test duration < 30 minutes)
Flame spread at 10 minutes (mm) : 80
Flame spread at 20 minutes (mm) : Not measured
Flame spread at 30 minutes (mm) : Not measured
Peak light attenuation (%) : 11.17
Time to peak light attenuation : 4 minutes 43 seconds (283 s)
Total integrated smoke (%.mm) : 28.98

Potential classification : **A2(f)/B(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.

APPENDIX I: Flooring Radiant Panel Single Specimen Report

Report produced with the Fire Testing Technology FRPSoft software

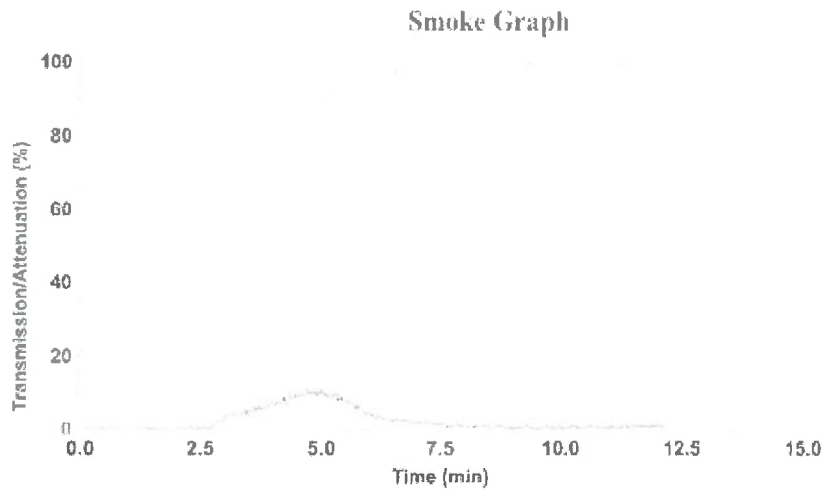
Date
05/08/2016

Project number
89210170

Report number
89210170.03br

Article
199 Logo Imperial

Page
8/12



Test name : cross #2
File name : D:\FRPFILES\16080002.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	330	11.3	3.732	510	-	3.7	-
110	-	10.5	-	560	-	3.1	-
160	-	9.8	-	610	-	2.6	-
210	-	9.0	-	660	-	2.2	-
260	-	8.1	-	710	-	1.9	-
310	-	7.3	-	760	-	1.6	-
360	-	6.3	-	810	-	1.4	-
410	-	5.3	-	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.

APPENDIX I: Flooring Radiant Panel Single Specimen Report

Report produced with the Fire Testing Technology TRFSOFT software

Date
05/08/2016

Page 1 **Project number**
89210170

Report number
89210170.03br

Article
199 Logo Imperial

Page
9/12

Flooring Radiant Panel Single Specimen Report

Standard : EN ISO 9239-1:2010
 Laboratory : TÜV Rheinland Nederland B.V.
 Sponsor : SMG 89210170
 Date of test : Aug. 04 2016

Specimen description : 199 Logo Imperial MT16-114199.03
 Test name : cross #3
 File name : D:\FRPFILES\16080005.CSV
 Test number in series : 4

Flux calibration file name : C:\FRPSOFT2.9A\CALIB\FLX16010.CSV

Thickness (mm) : 7.3
 Density (kg/m³) : 417

Test duration : 12 minutes 17 seconds (737 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 : 12 minutes 12 seconds (732 s)
 Extent of burning (mm) : 50
 Critical flux at extinguishment (kW/m²) : >= 10.9
 HF-10 (kW/m²) : >= 10.9
 HF-20 (kW/m²) : Not calculated (test duration < 20 minutes)
 HF-30 (kW/m²) : Not calculated (test duration < 30 minutes)
 Flame spread at 10 minutes (mm) : 50
 Flame spread at 20 minutes (mm) : Not measured
 Flame spread at 30 minutes (mm) : Not measured
 Peak light attenuation (%) : 8.55
 Time to peak light attenuation : 4 minutes 09 seconds (249 s)
 Total integrated smoke (%.min) : 16.54

Potential classification : A2(f)/B(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.

APPENDIX I: Flooring Radiant Panel Single Specimen Report

Report produced with the Fire Testing Technology FRPSoft software

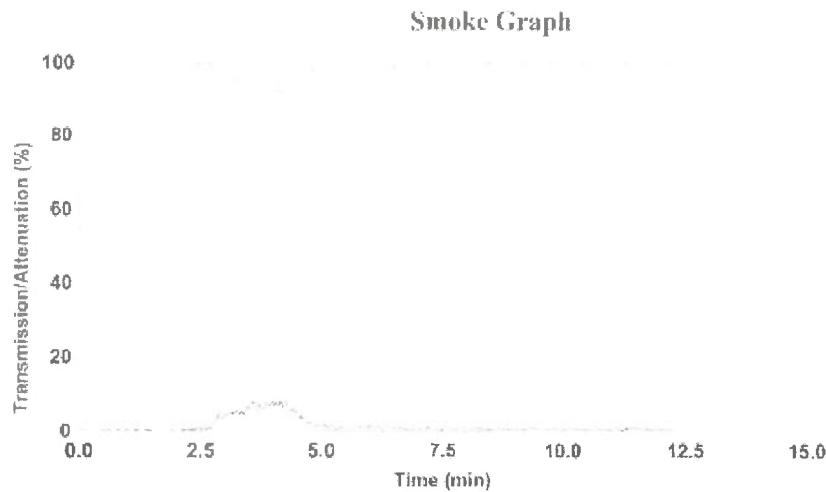
Date
05/08/2016

Project number
89210170

Report number
89210170.03br

Article
199 Logo Imperial

Page
10/12



Test name : cross #3
File name : D:\FRPFILES\16080005.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	-	11.3	-	510	-	3.7	-
110	-	10.5	-	560	-	3.1	-
160	-	9.8	-	610	-	2.6	-
210	-	9.0	-	660	-	2.2	-
260	-	8.1	-	710	-	1.9	-
310	-	7.3	-	760	-	1.6	-
360	-	6.3	-	810	-	1.4	-
410	-	5.3	-	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.

APPENDIX I: Flooring Radiant Panel Single Specimen Report

Report produced with the Fire Testing Technology FRPSaft software

Date
05/08/2016

Project number
89210170

Report number
89210170.03br

Article
199 Logo Imperial

Page
11/12

Flooring Radiant Panel Single Specimen Report

Standard : EN ISO 9239-1:2010
Laboratory : TÜV Rheinland Nederland B.V.
Sponsor : SMG 89210170
Date of test : Aug. 04 2016

Specimen description : 199 Logo Imperial MT16-114199.03
Test name : cross #4
File name : D:\FRFILES\16080006.CSV
Test number in series : 4

Flux calibration file name : C:\FRPSOFT\2.9A\CALIB\FLX16010.CSV

Thickness (mm) : 7.3
Density (kg/m³) : 417

Test duration : 12 minutes 06 seconds (726 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 01 seconds (121 s)
Time to flameout : 12 minutes 05 seconds (725 s)
Extent of burning (mm) : 80
Critical flux at extinguishment (kW/m²) : >= 10.9
HF-10 (kW/m²) : >= 10.9
HF-20 (kW/m²) : Not calculated (test duration < 20 minutes)
HF-30 (kW/m²) : Not calculated (test duration < 30 minutes)
Flame spread at 10 minutes (mm) : 80
Flame spread at 20 minutes (mm) : Not measured
Flame spread at 30 minutes (mm) : Not measured
Peak light attenuation (%) : 12.69
Time to peak light attenuation : 5 minutes 13 seconds (313 s)
Total integrated smoke (%.min) : 31.36

Potential classification : A2(B)/B(B)
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

Report produced with the Fire Testing Technology FRPSoft software

Date
05/08/2016

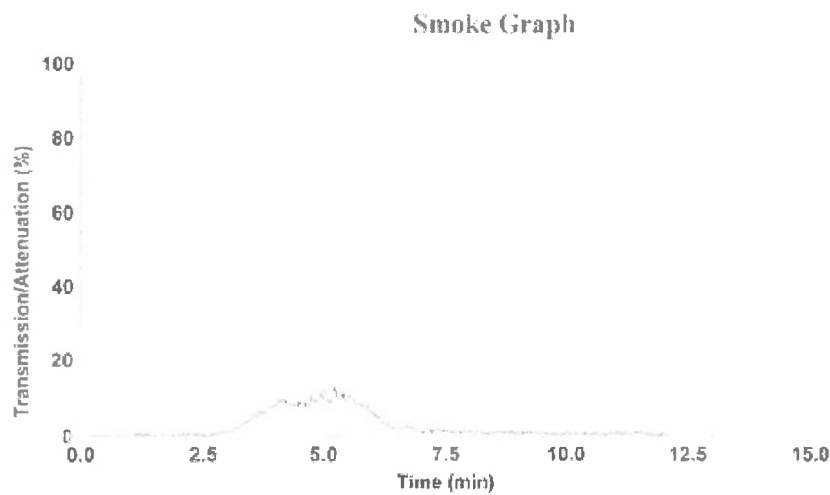
Project number
89210170

page 2

Report number
89210170.03br

Article
199 Logo Imperial

Page
12/12



Test name : cross #4
File name : D:\FRPFILES\16080006.CSV

Rake Results

Position (mm)	Time (s)	Flux (kW/m²)	Qsb (MJ/m²)	Position (mm)	Time (s)	Flux (kW/m²)	Qsb (MJ/m²)
60	280	11.3	3.167	510	-	3.7	-
110	-	10.5	-	560	-	3.1	-
160	-	9.8	-	610	-	2.6	-
210	-	9.0	-	660	-	2.2	-
260	-	8.1	-	710	-	1.9	-
310	-	7.3	-	760	-	1.6	-
360	-	6.3	-	810	-	1.4	-
410	-	5.3	-	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.