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## TEST REPORT 10-907

Translation/Adaptation

### Samples received :

Needled flat carpet with use layer 100% polypropylene with a base of latex SBR. Commercial reference **Expostyle**. Colour: blue  
Sample coming from the production of 22/10/2010, n° 1015785, mother bobbin: 100193900  
Received on 29/10/2010

### Aim of the test :

Determination of fire behaviour

### Test conditions :

Standard:

**ISO 11925-2 (2002)\***

Method:

The use surface of a vertically put specimen has been placed together with an underlay on a fibre cement board (Eflex) (loose laid), is ignited by a propane gas flame. Under condition of surface flame attack with 15 s exposure time, there shall be no flame spread from the point of the test flame within 20 s from the time application.

If the boundary line is not reached within 20 s, the sample meets the requirements for the class E<sub>fl</sub>.

Before the test the samples are cleaned with a spray-extraction machine and then dried.

Number of tests:

3 lengthwise and 3 crosswise

Conditioning samples:

23 ± 2 °C and 50 ± 5 % R.H.

The test results only apply to materials that correspond to the tested sample. Forgery will be legally prosecuted, just like partial reproduction without prior written permission. Tests that are marked \*are accredited, those marked ° are not accredited. Advices and interpretations are not covered by the accreditation.

The department of Textiles is Notified laboratory n°1611 for the European Products directive 89/106/EC.

Standard: **EN ISO 9239-1 (2002)\***  
 Method: Before the test the samples are cleaned with a spray-extraction machine and then dried.  
 A floorcovering is **put (loose laid)** on a fibre cement board (Eflex). During the test, the specimen is irradiated by a gas radiator at an angle of 30°. A small flame is used to ignite the specimen. The specimen is ignited during 10 minutes. In case of inflammable specimens, the test lasts until the flame is extinguished, but 30 minutes at the most. The criterion is the burned length, from which the critical radiant flux is deduced using a calibration curve.  
 The carpet fulfils the requirements of EN 14041 page 8 section 4.1.4 table 2. The carpet has a total mass of 280 g/m<sup>2</sup> ± 10 %.

Number of tests: 4  
 Conditioning samples: 23 ± 2 °C and 50 ± 5 % R.H.

**Classification according to EN 13501 –1 (2002)°**

Classification	EN ISO 11925-2 (ignition time = 15 s)	EN ISO 9239-1 (test period = 30 min)
B <sub>fl</sub>	F <sub>s</sub> ≤ 150 mm in 20 s	Critical flux ≥ 8.0 kW/m <sup>2</sup>
C <sub>fl</sub>	F <sub>s</sub> ≤ 150 mm in 20 s	Critical flux ≥ 4.5 kW/m <sup>2</sup>
D <sub>fl</sub>	F <sub>s</sub> ≤ 150 mm in 20 s	Critical flux ≥ 3.0 kW/m <sup>2</sup>
E <sub>fl</sub>	F <sub>s</sub> ≤ 150 mm in 20 s	No demand
F <sub>fl</sub>	No demand	No demand

**Additional classification smoke development according to EN 13501-1 (2002)°**

Smoke development ≤ 750%.min	s1
Smoke development > 750%.min	s2

The tests were performed in week 43/2010.

**OBTAINED RESULTS**

**ISO 11925-2 (2002)**

**Lengthwise**

<b>Sample</b>	<b>Afterburning time (s)</b>	<b>After glowing time (s)</b>	<b>Boundary line reached within 20 s</b>
1	12	-	No
2	54	-	No
3	16	-	No

**Crosswise**

<b>Sample</b>	<b>Afterburning time (s)</b>	<b>After glowing time (s)</b>	<b>Boundary line reached within 20 s</b>
1	58	-	No
2	>60	-	No
3	59	-	No

It can be deduced from the results that the carpet quality **Expostyle** meets the requirements for the class **E<sub>n</sub>**.

**EN ISO 9239-1 (2002)\***

a) Critical Flux :

Sample	Burned length (mm)		
	after 10 min	after 20 min	after 30 min
width	0	0	0
length	130	130	130
length	60	230	230
length	130	130	130
<b>average (of length)</b>	<b>107</b>	<b>163</b>	<b>163</b>

Sample	Burned length maximum (mm)	Extinction (s)	Critical Flux (kW/m <sup>2</sup> )
width	0	<720	11.5
length	130	741	10.6
length	230	963	8.7
length	130	723	10.4
<b>average (of length)</b>	<b>163</b>	-	<b>9.9</b>

b) Smoke development:

Sample	Smoke development (%min)			Smoke development (%min) Maximum
	after 10 min	after 20 min	after 30 min	
width	9	13	13	13
length	9	13	13	13
length	1	25	25	25
length	4	4	4	4
<b>average (of length)</b>	<b>5</b>	<b>14</b>	<b>14</b>	<b>14</b>

**CLASSIFICATION**

Since the radiation intensity is **higher** than 8.0 kW/m<sup>2</sup> and the smoke development is lower than 750 %min, the carpet quality **Expostyle (valid for all colours)** meets the demands of **class B<sub>FL</sub> s1** according to EN 13501-1°.

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