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**Date**  
5/02/13

## TEST REPORT 12-749

Translation

### Samples received :

Needlefelt with user layer of 100 % polypropylene and fire retardant coating  
Commercial reference : Expochic – Pulco – Colchic, Colour : grey  
Production date: 13/09/12; Mother bobbin: 120150242; Daughter bobbin: 120151192: OF: 1213744  
Received on 19/09/2012

### 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 an eflex plate (**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 in excess of 150 mm vertically 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>.  
Number of tests: 3 lengthwise and 3 crosswise  
Measurement uncertainty: The relative reproducibility for 3 repetitions is 27.2% for the flux.  
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.

## Fire Behaviour

Standard:

**EN ISO 9239-1 (2010)\***

Method:

Before the test the samples are **not cleaned** with a spray-extraction machine.

A floorcovering is put on (loose laid) 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 test EN 11925-2 has not been performed because the carpet fulfills the requirements of EN 14041 page 8 section 4.1.4 table 2. The carpet has a total mass of  $950 \pm 10 \text{ g/m}^2$  and a pile thickness of 4.0 mm as declared by the customer.*

Number of tests:

4

Measurement

The relative reproducibility for 3 repetitions is 15.6% for the flux, 84.5% for the smoke development.

uncertainty:

smoke development.

Conditioning samples:  $23 \pm 2 \text{ }^\circ\text{C}$  and  $50 \pm 5 \text{ \% R.H.}$

The tests were performed in week 40/2012

## **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	0	-	No
2	0	-	No
3	0	-	No

- **Crosswise**

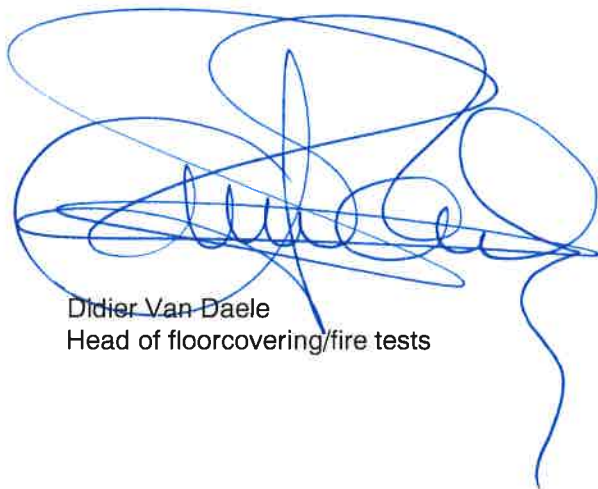
<b>Sample</b>	<b>Afterburning time (s)</b>	<b>After glowing time (s)</b>	<b>Boundary line reached within 20 s</b>
1	0	-	No
2	0	-	No
3	0	-	No

### **Classification**

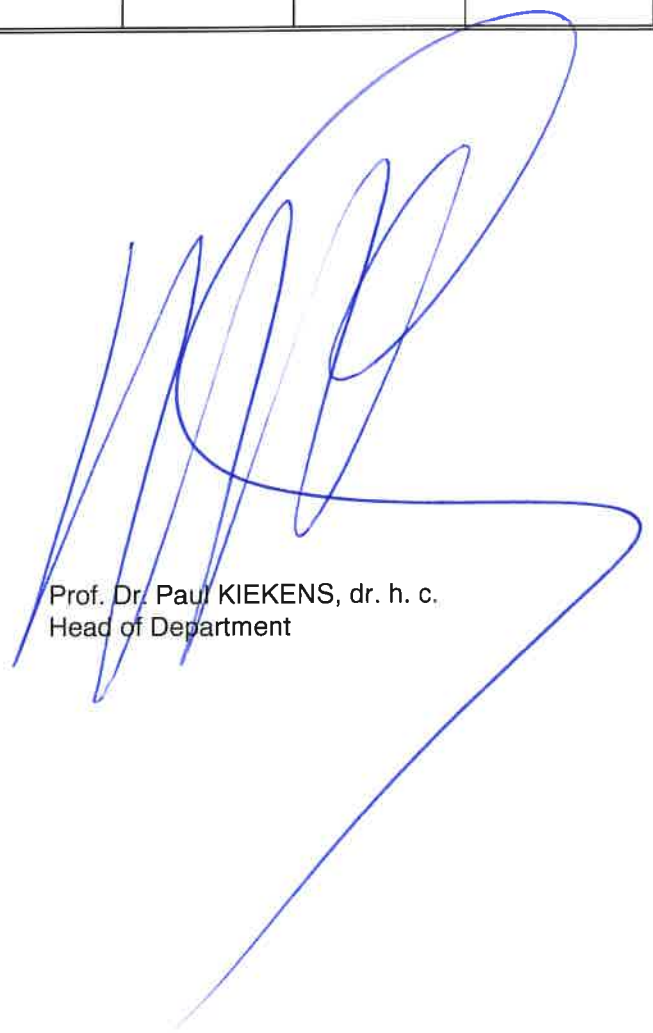
It can be deduced from the results that the quality **Expochic – Pulco – Colchic** meets the requirements for the class **E<sub>fl</sub>**

**EN ISO 9239-1 (2010)\***

Specimen number	1 Length	2 Width	3 Width	4 Width	Average Specimens 2,3,4
Flame spread after 10 min (mm)	120	160	400	155	
Flame spread after 20 min (mm)	120	160	560	155	
Flame spread after 30 min (mm)	120	160	560	155	
Flame spread at extinction (mm)	120	160	560	155	
Flame time	13min 0s	12min 3s	22min 9s	13min 54s	
Critical heat flux CHF at extinction (kW/m <sup>2</sup> )	10.5	9.9	3.0	10.0	7.6
Total smoke production at end of test (%.min)	39	40	107	60	68



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Prof. Dr. Paul KIEKENS, dr. h. c.  
Head of Department

## **ENCLOSURE TO REPORT 12-749**

**Classification according to EN 13501 –1 (2007 + A1: 2009)\***

<b>Classification</b>	<b>EN ISO 11925-2 (ignition time = 15 s)</b>	<b>EN ISO 9239-1 (test period = 30 min)</b>	<b>CLASS</b>
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>	<b>X</b>
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 (2007 + A1:2009)\***

		<b>CLASS</b>
Smoke development ≤ 750%.min	s1	<b>X</b>
Smoke development > 750%.min	s2	