

Reaction to fire testing of Porocom[®] Panels Ignitability test according to EN ISO 11925-2:2010

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1. PRODUCT IDENTIFICATION

Porocom® Panels, further referred to as 'the product'.

2. ABSTRACT

Determination of the **ignitability** properties of the product, by **direct small flame impingement** according to EN ISO 11925-2:2010, with the objective to obtain the reaction to fire classification according to EN 13501-1:2007+A1:2009.

3. DETAILS OF THE PRODUCT TESTED

3.1. INTENDED APPLICATION

The product will be used as a ceiling and wall covering.

3.2. MANUFACTURER/IMPORTER

Porocom
Frekehof 74
NL-2263 KA Leidschendam
The Netherlands

3.3. PRODUCT DESCRIPTION

According to the sponsor the product is from inside out composed of:

- Rockwool 504 insulation, with a thickness of 40 mm and a density of approx. 140 kg/m³;
- Steel mesh, with a thread thickness of 1.5 mm, with gaps of 10 x 10 mm;
- Blown clay granules, type LIAPOR 8/16 mm, with a total thickness of approx. 25 mm and a density of approx. 350 kg/m³, beaded in an epoxy based binder of approx. 1.5 kg/m²;
- Coated with fire retardant coating type Hensotherm, approx. 800 gr/m².

The product has a total thickness of 65 mm and a mass per unit area of approx. 14 kg/m².

4. DETAILS OF THE EXAMINATION

4.1. SAMPLES

Sampling procedure	The specimens were prepared and submitted by the sponsor.
Age	At the time of receipt: no information received.
Date of receipt	8 th of March 2013.

4.2. SPECIMEN PREPARATION

Substrate used Calcium silicate board - 12 mm, non-combustible
(class A1/A2 according to EN 13238:2010)

4.3. CONDITIONING

Prior to the examinations, the specimens were conditioned over a period of min. two weeks at a temperature of (23 ± 2) °C and a relative humidity of (50 ± 5) % according to § 4.1 of EN 13238:2010.

4.4. EXAMINATION

Number of tests A total of twenty single ignitability tests were carried out according to EN ISO 11925-2.

Deviations from the test method None

Harmonised Product Standard At the time of examination of the product, the sponsor was not aware of a related existing Harmonised Product Standard.

Date of examination 5th of April 2013

The results are given in Table 1.

5. CONCLUSIONS

A formal classification is to be assessed in accordance with EN 13501-1, "Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests".

Remarks:

The test results relate to the behaviour of the test specimens of a 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.

Regarding the precision of the test method, following Annex B of EN ISO 11925-2, the absolute repeatability/reproducibility for this test method is estimated to lie within 3 s to 5 s for all times measured.



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Project leader reaction to fire



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APPENDIX: RESULTS

Table 1: Ignitability classification parameter results

Flame application time: 30 s					
Sample	Ignition of sample	Maximum flame height	t ₁₅₀	Afterburning time	Ignition of filter Paper
	{Y=Yes/N=No}	[mm]	[s]	[s]	{Y=Yes/N=No}
Surface ignition					
1	Y	20	not reached	0	N
2	Y	30		0	N
3	Y	30		0	N
4	Y	20		0	N
5	Y	25		0	N
6	Y	30		0	N
Average		26			
Classification parameters	150 mm not reached within 60 s				N
Edge ignition					
1	Y	20	not reached	0	N
2	Y	20		0	N
3	Y	20		0	N
4	Y	20		0	N
5	Y	20		0	N
6	Y	20		0	N
Average		20			
Classification parameters	150 mm not reached within 60 s				N

Flame application time: 30 s					
Sample	Ignition of sample	Maximum flame height	t ₁₅₀	Afterburning time	Ignition of filter paper
	{Y=Yes/N=No}	[mm]	[s]	[s]	{Y=Yes/N=No}
Side ignition performed on edge					
Layer 1: Calcium silicate board - clay granules					
1	Y	20	not reached	0	N
2	Y	20		0	N
Layer 2: Clay granules					
1	Y	35	not reached	0	N
2	Y	35		0	N
Worst case layer: Clay granules					
1	Y	35	not reached	0	N
2	Y	35		0	N
3	Y	40		0	N
4	Y	40		0	N
Average		37			
Classification parameters		150 mm not reached within 60 s			N

Observations of physical behaviour of the test specimen: None