

Reaction to fire testing of ES/VFR/C with Excel clear top coat applied to plywood, thickness 9 mm Ignitability test according to EN ISO 11925-2:2010

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1. PRODUCT IDENTIFICATION

ES/VFR/C with Excel clear top coat applied to plywood, thickness 9 mm, 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/C1:2011, with the objective to obtain the reaction to fire classification according to EN 13501-1:2018.

3. DETAILS OF THE PRODUCT TESTED

3.1 INTENDED APPLICATION

The product will be used as a ceiling- wall- and façade finish.

3.2 MANUFACTURER

Intumescent Systems Ltd
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3.3 PRODUCT DESCRIPTION

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

- Layer of ES/VFR clear primer;
- 2 layers of ES/VFR/C;
- 2 layers of Excel clear top coat.

Applied to plywood, thickness 9 mm.

The product has a total thickness of 9 mm and a mass per unit area of approx. 4.4 kg/m².

4. DETAILS OF THE EXAMINATION

4.1 SAMPLES

Sampling procedure	The specimens were prepared and submitted by the sponsor. The preparation is described in report 2019-Efectis-R001227.
Age	At the time of receipt: no information received.
Date of receipt	June 12, 2019

4.2 SPECIMEN PREPARATION

Substrate used	Plywood, not fire retardant treated (EN 636), 450±50 kg/m ³ , thickness 9±1mm (class D-s2,d0) according to EN 13238:2010.
Method of applying	Painting

4.3 CONDITIONING

Prior to the examinations, the specimens were conditioned over a period of 2 weeks minimum 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 twelve single ignitability tests were carried out according to EN ISO 11925-2.
Deviations from the test method	None
Guideline for European Technical Approval of Fire retardant products	ETAG 028:2012
Date of examination	June 27, 2019

The results are given in Table 1, Appendix: Results.

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".

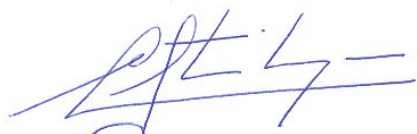
Remarks:

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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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	25	not reached	0	N
2	Y	30		0	N
3	Y	25		0	N
4	Y	25		0	N
5	Y	30		0	N
6	Y	25		0	N
Maximum		30			
Classification parameters		150 mm reached within 60 s			N
		Ignition of filter paper			N
Edge ignition					
1	Y	10	not reached	0	N
2	Y	15		0	N
3	Y	30		0	N
4	Y	25		0	N
5	Y	25		0	N
6	Y	20		0	N
Maximum		30			
Classification parameters		150 mm reached within 60 s			N
		Ignition of filter paper			N