



**Test Results**

**Flammability Test**

**Test Requested** : EN 13501-1:2018 Fire classification of construction products and building elements - Part 1: Classification using test data from reaction to fire tests.  
Classes of reaction to fire performance for construction products excluding floorings and linear pipe thermal insulation products, Class B.

**Test Results** : -- See attached sheet --

**I. Test Conducted**

This test was conducted in accordance with EN 13501-1:2018 Fire classification of construction products and building elements - Part 1: Classification using test data from reaction to fire tests. And the test methods as following:

- 1) EN 13823:2020 Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item.
- 2) EN ISO 11925-2:2020 Reaction to fire tests - Ignitability of products subjected to direct impingement of flame - Part 2: Single-flame source test.

**II. Sample Details**

Specimens Size	1500x1000mm & 1500x495mm 250x90mm	Tested Face	Front side
Substrate	Gypsum plasterboard	Fixing method	Fix mechanically
Splicing method	None		
Mounting and fixing	Gypsum plasterboard, with its density approximate 650kg/m <sup>3</sup> , thickness approximate 12mm, is as the substrate. The Test specimens are fixed mechanically to the substrate.. No joint in the long and short wings of the specimen.		

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III. Test Results

Test method	Parameter	Results
EN 13823	FIGRA <sub>0.2MJ</sub> (W/s)	38.2
	FIGRA <sub>0.4MJ</sub> (W/s)	0
	LFS < edge of specimen	Yes
	THR <sub>600s</sub> (MJ)	0.7
	SMOGR(m <sup>2</sup> /s <sup>2</sup> )	53.5
	TSP <sub>600s</sub> (m <sup>2</sup> )	42.1
	Flaming droplets/particles	No
EN ISO 11925-2 <sup>i</sup>	F <sub>s</sub> ≤ 150 mm	Yes
Exposure = 30 s	Ignition of the filter paper	No

IV. Classification and field of application

a) Reference of classification

This classification has been carried out in accordance with EN 13501-1:2018. The classes with their corresponding fire performance are given in annex A.

b) Classification

The product, in relation to its reaction to fire behaviour is classified:

MEET	Class B
Classification	B—s2, d0

c) Field of application

This classification is valid for the following end use applications:

- With all substrates classified A1 or A2
- Fix mechanically
- No join

This classification is valid for the following product parameters:

- Characteristics as described in section II of this test reports.

IV. Statement

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.



Annex A

Classes of reaction to fire performance for construction products excluding floorings and linear pipe thermal insulation products

Class	Test method(s)	Classification criteria	Additional classification
A1	EN ISO 1182 <sup>a</sup> and	$\Delta T \leq 30^\circ\text{C}$ , and $\Delta m \leq 50\%$ , and $t_f = 0$ (i.e. no sustained flaming)	-
	EN ISO 1716	$\text{PCS} \leq 2.0 \text{ MJ/kg}$ <sup>a</sup> and $\text{PCS} \leq 2.0 \text{ MJ/kg}$ <sup>b,c</sup> and $\text{PCS} \leq 1.4 \text{ MJ/m}^2$ <sup>d</sup> and $\text{PCS} \leq 2.0 \text{ MJ/kg}$ <sup>e</sup>	-
A2	EN ISO 1182 <sup>a</sup> or	and $\Delta T \leq 50^\circ\text{C}$ , and $\Delta m \leq 50\%$ , and $t_f \leq 20 \text{ s}$	-
	EN ISO 1716		-
	EN 13823	$\text{FIGRA}_{0,2} \text{ MJ} \leq 120 \text{ W/s}$ and $\text{LFS} < \text{edge of specimen}$ and $\text{THR}_{600\text{s}} \leq 7.5 \text{ MJ}$	Smoke production <sup>f</sup> and Flaming droplets/particles <sup>g</sup>
B	EN 13823 and	$\text{FIGRA}_{0,2} \text{ MJ} \leq 120 \text{ W/s}$ and $\text{LFS} < \text{edge of specimen}$ and $\text{THR}_{600\text{s}} \leq 7.5 \text{ MJ}$	Smoke production <sup>f</sup> and Flaming droplets/particles <sup>g</sup>
	EN ISO 11925-2 <sup>i</sup> Exposure = 30s	within 60s $F_s \leq 150 \text{ mm}$	
C	EN 13823 and	$\text{FIGRA}_{0,4} \text{ MJ} \leq 250 \text{ W/s}$ and $\text{LFS} < \text{edge of specimen}$ and $\text{THR}_{600\text{s}} \leq 15 \text{ MJ}$	Smoke production <sup>f</sup> and Flaming droplets/particles <sup>g</sup>
	EN ISO 11925-2 <sup>i</sup> Exposure = 30s	$F_s \leq 150 \text{ mm}$ within 60 s	
D	EN 13823 and	$\text{FIGRA}_{0,4} \text{ MJ} \leq 750 \text{ W/s}$	Smoke production <sup>f</sup> and Flaming droplets/particles <sup>g</sup>
	EN ISO 11925-2 <sup>i</sup> Exposure = 30s	$F_s \leq 150 \text{ mm}$ within 60 s	
E	EN ISO 11925-2 <sup>i</sup> Exposure = 15s	$F_s \leq 150 \text{ mm}$ within 20 s	Flaming droplets/particles <sup>h</sup>
F	EN ISO 11925-2 <sup>i</sup> Exposure = 15s	$F_s > 150 \text{ mm}$ within 20 s	

<sup>a</sup> For homogeneous products and substantial components of non-homogeneous products.  
<sup>b</sup> For any external non-substantial component of non-homogeneous products.  
<sup>c</sup> Alternatively, any external non-substantial component having a  $\text{PCS} \leq 2.0 \text{ MJ/m}^2$ , provided that the product satisfies the following criteria of EN 13823:  $\text{FIGRA} \leq 20 \text{ W/s}$ , and  $\text{LFS} < \text{edge of specimen}$ , and  $\text{THR}_{600\text{s}} \leq 4.0 \text{ MJ}$ , and  $s_1$ , and  $d_0$ .  
<sup>d</sup> For any internal non-substantial component of non-homogeneous products.  
<sup>e</sup> For the product as a whole.  
<sup>f</sup>  $s_1 = \text{SMOGR} \leq 30 \text{ m}^2/\text{s}^2$  and  $\text{TSP}_{600\text{s}} \leq 50 \text{ m}^2$ ;  $s_2 = \text{SMOGR} \leq 180 \text{ m}^2/\text{s}^2$  and  $\text{TSP}_{600\text{s}} \leq 200 \text{ m}^2$ ;  $s_3 = \text{not } s_1$  or  $s_2$   
<sup>g</sup>  $d_0 = \text{No flaming droplets/ particles in EN 13823 within 600 s}$ ;  
 $d_1 = \text{no flaming droplets/ particles persisting longer than 10 s in EN 13823 within 600 s}$ ;  
 $d_2 = \text{not } d_0 \text{ or } d_1$ .



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Ignition of the paper in EN ISO 11925-2 results in a d2 classification.

<sup>h</sup> Pass = no ignition of the paper (no classification);

Fail = ignition of the paper (d2 classification).

<sup>i</sup> Under conditions of surface flame attack and, if appropriate to the end-use application of the product, edge flame attack.

Sample Photo



Before test(EN 13823)

After test(EN 13823)

\*\*\*End of Report\*\*\*



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