

# ***Reaction to fire classification report No. 17357C***

## **Owner of the classification report**

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## **Introduction**

This classification report defines the classification assigned to the product '**Dow Corning PanelFix System**' in accordance with the procedures given in the standard EN 13501-1:2007+A1:2009: Fire classification of construction products and building elements - Part 1: classification using data from reaction to fire tests.

**This classification report consists of 9 pages**

## 1. DETAILS OF CLASSIFIED PRODUCT

### a) Nature and end use application

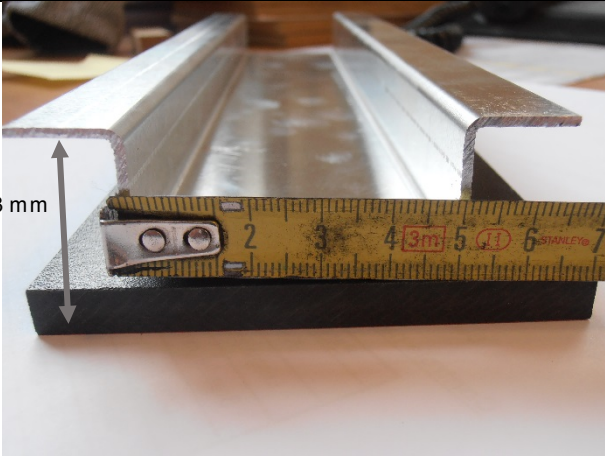
The product **Dow Corning PanelFix System** is defined as a 'fixation system for adhering HPL panels to an aluminium profile'.

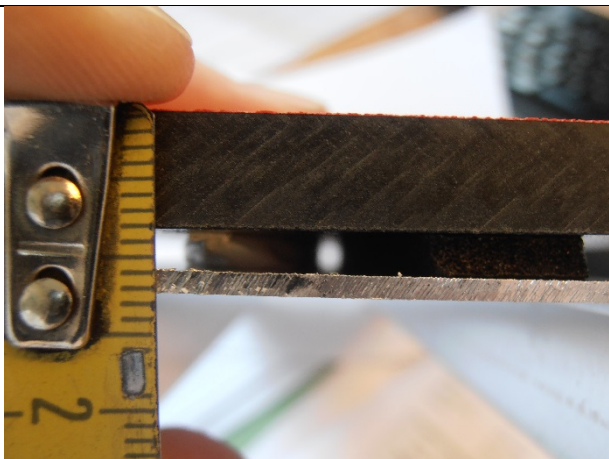
Its classification is valid for the following end use application(s):

Used as a fixation system for wall panels.

### b) Description of the tested product

*This description is based on information given by the sponsor.*

Nominal values	
<b>PRODUCT: Dow Corning PanelFix System</b>	
Type of product	HPL panel fixed by rubber and silicone on an aluminium profile
Total thickness (mm, as measured in figure 1)	33
<b>ALUMINIUM PROFILE</b>	
Type of product	Aluminium profile (see picture below)
Manufacturer	DHK Belgium Company
Thickness (mm)	1,5
Height (mm)	20
Total width (mm)	80
Picture of the aluminium profile	 <p style="text-align: center;"><b>Figure 1: picture of the metal profile that was used. Thickness of 1,5 mm.</b></p>
Fixation	The aluminium profile was adhered to the HPL panel by both silicone adhesive and a rubber tape.

Nominal values	
<b>SILICONE ADHESIVE</b>	
Type of product	Elastic one-component neutral-curing silicone adhesive
Commercial name	Dow Corning 896 PanelFix
Manufacturer	Dow Corning Europe SA
Thickness (mm)	Joint application: 3,2
Density (dry) (kg/m <sup>3</sup> )	1,54
Use of fire retardants	No
Colour	White
<b>RUBBER TAPE</b>	
Type of product	Rubber tape (see figure 2 below)
Commercial name	Dow Corning PanelFix Tape
Manufacturer	Dow Corning Europe SA
Thickness (mm)	Joint application: 3,2
Width (mm)	12
Density (dry) (kg/m <sup>3</sup> )	80
Use of fire retardants	No
Colour	Black
Picture of both components of the fixation system	 <p><b>Figure 2 : White silicone adhesive on the left and black rubber tape on the right.</b></p>

Nominal values	
<b>HPL PANEL</b>	
Type of product	High pressure laminate ("HPL") consists of kraft paper impregnated with phenolic resin and a coat on the outside with acrylic resin.
Commercial name	Trespa Meteon
Manufacturer	Trespa International B.V.
Thickness (mm)	8
Density (kg/m <sup>3</sup> )	1441
Use of fire retardants	Yes
Colour	Front side (coating): passion red, backside : black (exposed to the fire)

More details are available in the test report(s) in support of this classification (§2a).

Mounting and fixing according to EN 13823 (see figures 3 and4):

At request of the sponsor, the test was performed with aluminium profile and tape fixation system as the exposed side. An open (10 mm) vertical and an open (10 mm) horizontal joint have been constructed in the HPL panels. Aluminium profiles were fixed to the HPL panels by silicone adhesive and rubber tape every 340 mm (profiles close to the edge of HPL panel, were fixed 60 mm from the edge). The product was tested with a ventilated air gap of 80 mm, which is according to EN 13823 freestanding. The ventilated airgap was created by metal spacers between the product and the calcium silicate backing board (12 mm; 870 kg/m<sup>3</sup>) (see report No. 17357B).

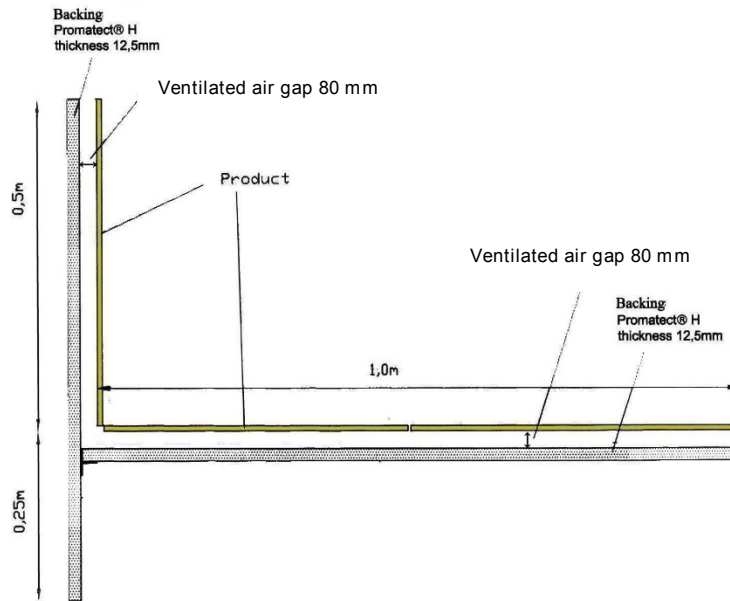


Figure 3: Drawing of the build-up HPL panel fixed to an aluminium profile with rubber and silicone fixation system.

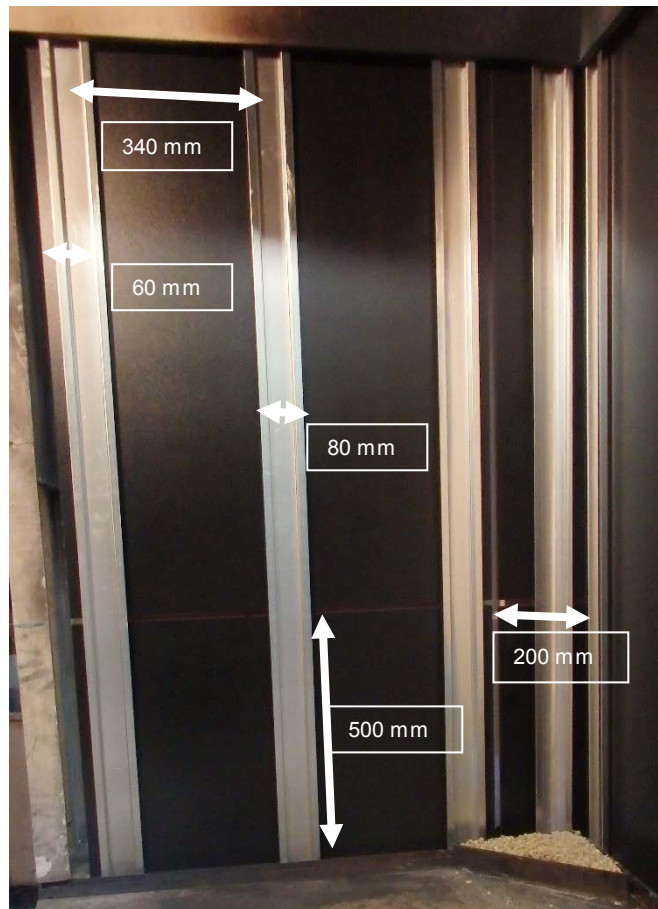


Figure 4: picture of the build-up of the HPL panel (black backside) fixed to an aluminium profile with rubber and silicone fixation system.

## 2. TEST REPORTS AND TEST RESULTS IN SUPPORT OF THIS CLASSIFICATION

### a) Test reports

Name of the laboratory	Name of the sponsor	Test report ref. No. and test date	Test method
WFRGENT nv Ghent, Belgium	Dow Corning Europe SA, Seneffe- Belgium	17357A 20/11/2015	EN ISO 11925-2 (November 2010/AC:2011)
WFRGENT nv Ghent, Belgium	Dow Corning Europe SA, Seneffe- Belgium	17357B 21/10/2015	EN 13823 (July 2010+A1:2014)

### b) Test samples

Test report ref. No.	Sampling procedure: Assessment and Verification of Constancy of Performance (AVCP)	Conditioning	Number of samples tested
17357A	System 3	To constant mass	24
17357B	System 3	For a fixed period	3

c) Test results

Test method	Parameter	Number of tests	Results		Criteria for Class B-S2,d0		
			Continuous parameters Mean	Compliance parameters	Continuous parameters	Compliance parameters	
<b>EN ISO 11925-2 (*) (1)</b> 30 s flame application: <u>Surface exposure</u> - front side <u>Edge exposure</u> - mid point 1,5 mm behind surface <u>Edge exposure</u> - turned 90°	F <sub>s</sub> ≤ 150 mm Ignition filter paper	6	(-)	Yes	(-)	Yes	
			(-)	No	(-)	No	
	F <sub>s</sub> ≤ 150 mm Ignition filter paper	6	(-)	Yes	(-)	Yes	
			(-)	No	(-)	No	
	F <sub>s</sub> ≤ 150 mm Ignition filter paper	12	(-)	Yes	(-)	Yes	
			(-)	No	(-)	No	
(*) The material didn't melt nor pull away from the pilot burner. 1. Based on the results obtained in test report No. 17357A.							
<b>EN 13823 (2)</b>	FIGRA <sub>0,2 MJ</sub> (W/s)	3	57	(-)	≤ 120	(-)	
	FIGRA <sub>0,4 MJ</sub> (W/s)		57	(-)	≤ 120	(-)	
	LFS <sub>&lt;edge</sub>		(-)	Yes	(-)	Yes	
	THR <sub>600s</sub> (MJ)		3.4	(-)	≤ 7,5	(-)	
	SMOGRA (m <sup>2</sup> /s <sup>2</sup> )		5	(-)	≤ 180	(-)	
	TSP <sub>600s</sub> (m <sup>2</sup> )		72	(-)	≤ 200	(-)	
	Flaming droplets/particles						
	f < 10 s		(-)	No	(-)	No	
	f > 10 s		(-)	No	(-)	No	
2. Based on the results obtained in test report No. 17357B, the test was performed with the aluminium profile with rubber and silicone fixation system as the fire exposed side.							

(-) Not applicable.

### 3. CLASSIFICATION AND FIELD OF APPLICATION

a) Reference of classification

This classification has been carried out in accordance with EN 13501-1:2007+A1:2009.

b) Classification

The product **DowCorning PanelFix System** in relation to its reaction to fire behavior is classified as:

Fire behavior	Smoke production	Flaming droplets
<b>B</b>	<b>s2</b>	<b>d0</b>

c) Field of application

This classification for the product as described in §1b, is valid for the following end use conditions:

- Product as such
- Fire exposed side: aluminium profile with silicone and rubber tape fixation system

This classification is valid for the following product parameters:

<b>Total product: Dow Corning PanelFix System</b>	Nominal thickness (mm)	33
<b>Aluminium profile</b>	Nominal thickness (mm)	1,5
	Size of profile	As described in §1b
<b>Silicone adhesive; Dow Corning 896 PanelFix</b>	Nominal thickness (mm)	3,2
	Nominal density (dry) (kg/m <sup>3</sup> )	1,54
<b>Rubber tape: Dow Corning PanelFix Tape</b>	Nominal thickness (mm)	3,2
	Nominal density (dry) (kg/m <sup>3</sup> )	Not communicated
	Width (mm)	12
<b>HPL panel</b>	Nominal Thickness	8
	Density (kg/m <sup>3</sup> )	1441



#### 4. **RESTRICTIONS**

At the time the standard EN 13501-1:2007+A1:2009 was published, no decision was made concerning the duration of validity of a classification report.

Provisions of Regulation (EU) 305/2011, commonly known as the Construction Products Regulation (CPR), prevail over any conflicting provisions in the harmonised standards and technical specifications.

#### 5. **WARNING**

This classification report does not represent type approval nor certification of the product.

According to the information mentioned by the sponsor on the technical information sheet there was no product standard for CE marking available at the time the classification report for the tested material/product was drafted.

When such a product standard is published, this report may be submitted again to the laboratory to evaluate the adequacy of the report for CE marking.

The sponsor of this report has nevertheless committed himself to a System 3 Assessment and Verification of Constancy of Performance (AVCP).

PREPARED BY

APPROVED BY

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