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CLASSIFICATION

CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH EN 13501-1:2018

Classification no.	2020-Efectis-R002446
Sponsor	Smeva B.V. John F. Kennedylaan 25/27 5555 XC VALKENSWAARD THE NETHERLANDS
Product name	**PUR sandwich panel 80 – 140 mm**
Prepared by	Efectis Nederland BV
Notified body no.	1234
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1. INTRODUCTION

This classification report defines the classification assigned to **Smeva PUR sandwich panel** in accordance with the procedures given in EN 13501-1:2018.

2. DETAILS OF CLASSIFIED PRODUCT

2.1 GENERAL

The product, Smeva PUR sandwich panel, is defined as a wall panel for cold stores.

2.2 MANUFACTURER

Smeva B.V.
John F. Kennedylaan 25/27
5555 XC VALKENSWAARD
THE NETHERLANDS

2.3 PRODUCT DESCRIPTION

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

- White polyester coating with an average thickness of 25 µm;
- Metal sheet (hot dip galvanized) with a thickness of 0,5 mm;
- PUR insulation thickness between 80 and 140 mm and a density of 43 kg/m^3;
- Metal sheet thickness with a thickness of 0,5 mm;
- White polyester coating with an average thickness of 25 µm.

The panels are fixed with coupling approximate 1 per meter with a minimum of two on each side.

The product has a total thickness of 80-140 mm and a mass per unit area of approx. 11.4-14.4 kg/m^2.

3. STANDARDS, REPORTS, RESULTS AND CRITERIA IN SUPPORT OF THIS CLASSIFICATION

3.1 APPLICABLE (PRODUCT) STANDARDS

EN ISO 11925-2:2020	Reaction to fire tests - Ignitability of products subjected to direct impingement of flame - Part 2: Single-flame source test
EN 13823:2010+A1:2014	Reaction to fire tests for building products - Building products, excluding floorings exposed to the thermal attack by a single burning item
EN 15715:2009	Thermal insulation products - Instructions for mounting and fixing for reaction to fire testing - Factory made products
EN 13238:2010	Reaction to fire tests for building products - Conditioning procedures and general rules for selection of substrates
EN 13501 1:2018	Fire classification of construction products and building elements Part 1: Classification using data from reaction to fire tests

3.1 APPLICATION (PRODUCT) STANDARDS (CONTINUOUS)

EN 14509: 2013 — Self-supporting double skin metal faced insulating panels- Facotry made products- Specifications

3.2 REPORTS

Name of Laboratories	Name of sponsor	Report ref. no.	Test method
Efectis Nederland BV THE NETHERLANDS	Smeva B.V. THE NETHERLANDS	2020-Efectis-R002444 2020-Efectis-R002445	EN ISO 11925-2:2020 EN 13823:2010

3.3 TEST RESULTS

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – maximum	Compliance with parameters
EN ISO 11925-2				
Surface flame impingement	Fs ≤150 mm	6	30	-
	Ignition of filter paper		-	Compliant
Edge flame Impingement	Fs ≤150 mm	6	30	-
	Ignition of filter paper		-	Compliant
Side flame Impingement	Fs ≤150 mm	6	120	-
	Ignition of filter paper		-	Compliant

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – mean (m)	Compliance with parameters
EN 13823				
140 mm panel	$FIGRA_{0.2MJ}$ [W/s]	3	22	-
	$FIGRA_{0.4MJ}$ [W/s]		22	-
	THR_{600s} [MJ]		1.2	-
	LFS < edge		No	Compliant
	SMOGRA [m^2/s^2]		24.4	-
	TSP_{600s} [m^2]		143	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		 - -	 Compliant Compliant

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – mean (m)	Compliance with parameters
EN 13823				
80 mm panel	$FIGRA_{0.2MJ}$ [W/s]	1	5	-
	$FIGRA_{0.4MJ}$ [W/s]		5	-
	THR_{600s} [MJ]		0.8	-
	LFS < edge		No	Compliant
	SMOGRA [m^2/s^2]		15.6	-
	TSP_{600s} [m^2]		139	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		- -	Compliant Compliant

3.4 CLASSIFICATION CRITERIA

Fire classification of construction products and building elements Excluding floorings and linear pipe thermal insulation products			
Classification criteria			
Class Test method(s)	**B**	**C**	**D**
EN ISO 11925-2 Exposure = 30 s	F_s ≤ 150 mm within 60 s Ignition of the paper in EN ISO 11925-2 results in a d2 classification.		
EN 13823	$FIGRA_{0.2\ MJ}$ ≤ 120 W/s LFS < edge of specimen THR_{600s} ≤ 7.5 MJ	$FIGRA_{0.4\ MJ}$ ≤ 250 W/s LFS < edge of specimen THR_{600s} ≤ 15 MJ	$FIGRA_{0.4\ MJ}$ ≤ 750 W/s
Additional classification			
Smoke production	**s1** = SMOGRA ≤ 30 m^2/s^2 and TSP_{600s} ≤ 50 m^2; **s2** = SMOGRA ≤ 180 m^2/s^2 and TSP_{600s} ≤ 200 m^2; **s3** = not s1 or s2		
Flaming Droplets/particles	**d0** = no flaming droplets/ particles in EN 13823 within 600 s; **d1** = no flaming droplets/ particles persisting longer than 10 s in EN 13823 within 600 s; **d2** = not d0 or d1.		

4. CLASSIFICATION AND FIELD OF APPLICATION

4.1 REFERENCE OF CLASSIFICATION

This classification has been carried out in accordance with clause 11 of EN 13501-1:2018.

4.2 CLASSIFICATION

The product, **Smeva PUR sandwich panel**, in relation to its reaction to fire behaviour is classified:

B

The additional classification in relation to smoke production is:

s2

The additional classification in relation to flaming droplets / particles is:

d0

Reaction to fire classification: B – s2, d0

4.3 FIELD OF APPLICATION

This classification is valid for the following product parameters:

Thickness	80 to 140 mm
Surface density	11.4 – 14.4 kg/m^2
Other properties	PUR 43 kg/m^3

This classification is valid for the following end use applications:

Substrate	Not applicable
Application	Free standing
Air gap	Not applicable
Methods and means of fixing	Mechanically with coupling at approximate 1 per meter with a minimum of 2 on each side.
Joints	Yes, vertical
Other aspects of end use conditions	Closed surface, no openings or gaps between components

4.4 DURATION OF THE VALIDITY OF THIS CLASSIFICATION REPORT

There are no limitations in time on the validity of this report.

5. LIMITATIONS

This classification document does not represent type approval or certification of the product.

The classification assigned to the product in this report is appropriate to a declaration of conformity by the manufacturer within the context of system 3 **Assessment and Verification of Consistency of Performance (AVCP)** and **CE marking** under the **Construction Products Regulation**.

The manufacturer has made a declaration, which is held on file. This confirms that the product's design requires no specific processes, procedures or stages (e.g. no addition of flame-retardants, limitation of organic content, or addition of fillers) that are aimed at enhancing the fire performance in order to obtain the classification achieved. As a consequence the manufacturer has concluded that system 3 AVCP is appropriate.

The test laboratory has, therefore, played no part in sampling the product for the test, although it holds appropriate references, supplied by the manufacturer, to provide for traceability of the samples tested.

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Project leader Reaction to Fire