

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

Classification no.	2022-Efectis-R000902[Rev.1]
Sponsor	PPG Coatings Europe BV Oceanenweg 2 1047 BB AMSTERDAM THE NETHERLANDS
Product name	Sigma Perfect Semi-Matt
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1. INTRODUCTION

This classification report defines the classification assigned to **Sigma Perfect Semi-Matt** in accordance with the procedures given in EN 13501-1:2018.

1.1 REVISION INFORMATION

This is a revised version of this report. This version supersedes all previous versions of this reports that are hereby withdrawn. Details on the changes can be found in the tables below.

Table 1.1: Revision information

Issue	Date of issue	Report no.
First issue	September of 2022	2022-Efectis-R000902

1.2 FIRST REVISION DETAILED INFORMATION

Table 1.2: First revision information

Chapter of revision	2.3 / 3.3 / 4.3
Reason of revision	Extension of colour application
Consequences of revision	Results valid for all colours

2. DETAILS OF CLASSIFIED PRODUCT

2.1 GENERAL

The product, **Sigma Perfect Semi-Matt**, is defined as a ceiling and wall coating.

2.2 MANUFACTURER/IMPORTER

PPG Coatings Europe BV
Oceanenweg 2
1047 BB AMSTERDAM
THE NETHERLANDS

2.3 PRODUCT DESCRIPTION

According to the sponsor the product is a paint based on an acrylic resin. The colour of the product is full shade yellow (UYV). The paint is applied in 2 layers with a brush, roller or spray.

The product has a total thickness of 85 µm, a wet density of approx. 1130 kg/m³ and a dry mass per unit area of approx. 145 g/m². PCS value 18.85 MJ/kg respectively applied 2.73 MJ/m².

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

3.1 APPLICABLE (PRODUCT) STANDARDS

EN 13823:2020	Reaction to fire tests for building products - Building products, excluding floorings exposed to the thermal attack by a single burning item
EN ISO 1716:2018	Reaction to fire tests for products - Determination of the gross heat of combustion (calorific value).
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

3.2 REPORTS

Name of Laboratories	Name of sponsor	Report ref. no.	Test method
Efectis Nederland BV The Netherlands	PPG Coatings Europe BV THE NETHERLANDS	2022-Efectis-R000901[Rev.1] 2022-Efectis-R000900 2022-Efectis-R000905	EN 13823:2020 EN ISO 1716:2018

3.3 TEST RESULTS

Test method and test number	Parameter	No. tests	Results	
			Continuous parameter – mean (m)	Compliance with parameters
EN 13823				
	FIGRA _{0.2MJ} [W/s]	3	0	-
	FIGRA _{0.4MJ} [W/s]		0	-
	THR _{600s} [MJ]		0.7	-
	LFS < edge		-	Compliant
	SMOGRA [m ² /s ²]		0	-
	TSP _{600s} [m ²]		15	-
	Flaming debris - flaming ≤ 10 s - flaming > 10 s		-	Compliant Compliant

Test method and parameter				
EN ISO 1716	No. tests	Results		
		Continuous parameter – mean (m)	Compliance with parameters	
The product is homogeneous				
External non-Substantial component(s)	[MJ/m ²]	3	2.73	Compliant
Product as a whole	[MJ/kg]	3	≤3.0	Compliant
Product applied on non-combustible substrate (Class A1/A2, 870 ± 50 kg/m ³ , according to EN 13238:2010). This will result in a total PCS per kg product less than 3 MJ/kg				

3.4 CLASSIFICATION CRITERIA

Fire classification of construction products and building elements Excluding floorings and linear pipe thermal insulation products			
Class	Test method(s)	Classification criteria	Additional classification
A2	EN ISO 1182 ^a Or	$\Delta T \leq 50 \text{ }^\circ\text{C}$; and $\Delta m \leq 50 \%$; and $t_f \leq 20 \text{ s}$	-
	EN ISO 1716 and	$PCS \leq 3.0 \text{ MJ/kg}$ ^a and $PCS \leq 4.0 \text{ MJ/m}^2$ ^b and $PCS \leq 4.0 \text{ MJ/m}^2$ ^d and $PCS \leq 3.0 \text{ MJ/kg}$ ^e	-
	EN 13823	$FIGRA \leq 120 \text{ W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 7.5 \text{ MJ}$	Smoke production ^f and Flaming droplets/particles ^g

^a For homogeneous products and substantial components of non-homogeneous products.
^b For any external non-substantial component of non-homogeneous products.
^c Alternatively, any external non-substantial component having a $PCS \leq 2.0 \text{ MJ/m}^2$, provided that the product satisfies the following criteria of EN 13823: $FIGRA \leq 20 \text{ W/s}$, and $LFS < \text{edge of specimen}$, and $THR_{600s} \leq 4.0 \text{ MJ}$, and s1, and d0.
^d For any internal non-substantial component of non-homogeneous products.
^e For the product as a whole.
^f **s1** = $SMOGRA \leq 30 \text{ m}^2/\text{s}^2$ and $TSP_{600s} \leq 50 \text{ m}^2$;
s2 = $SMOGRA \leq 180 \text{ m}^2/\text{s}^2$ and $TSP_{600s} \leq 200 \text{ m}^2$;
s3 = not s1 or s2
^g **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, **Sigma Perfect Semi-Matt**, in relation to its reaction to fire behaviour is classified:

A2

The additional classification in relation to smoke production is:

s1

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

d0

Reaction to fire classification: A2 – s1, d0

4.3 FIELD OF APPLICATION

This classification is valid for the following product parameters:

Dry layer thickness	85 µm
Wet density	1130 kg/m ³
Dry mass per surface area	145 g/m ²
Other properties	All colours (PCS ≤ 2.73 MJ/m ²) Applied in 2 layers.

This classification is valid for the following end use applications:

Substrate	Non-combustible (Class A1/A2, 870 ± 50 kg/m ³ , according to EN 13238:2010)
Application	Applied with brush, roller or spray
Air gap	Not applicable
Methods and means of fixing	Self-adherend
Joints	No

4.4 DURATION OF THE VALIDITY OF THIS CLASSIFICATION REPORT

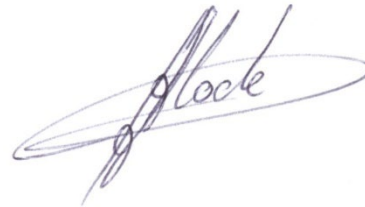
Consult classification standard and national laws and regulations for limitations on the period of validity of the classification.

5. LIMITATIONS

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



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