

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

AP/F
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Petitioner's reference: **VM Building Solutions SAS**
Tour Altais, place Aimé Césaire
93100 – Montreuil
SEINE-SAINT-DENIS

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Notified Body No: **0370**

Product name: **PIGMENTO PLUS**

Classification report nº: **24/32303889-2 M1**

Date of issue: **14th October, 2024**

Description of modification: By the request of the petitioner extension has been added, and changed description of the product. Changes are shown on italics.

This report replaces test report 24/32303889-2 issued on 18 September 2024. It is the responsibility of the customer to replace the original and all copies.

1.-INTRODUCTION

This classification report defines the classification assigned to Gypsum Boards in accordance with the procedures given in the EN 13501-1:2018 standard.

LGAI TECHNOLOGICAL CENTER, S.A. is notified body nº 0370 under Construction Product Regulation nº 305/2011 for CE Marking; System 3.

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2.- DETAILS OF CLASSIFIED PRODUCT

2.1.-General

The product, PIGMENTO PLUS, is defined according to European Standard EN 14782:2006: "Self-supporting metal sheet for roofing, external cladding and internal lining - Product specification and requirements"

2.2.- Description of the product

Samples of a Self-supporting metal sheet , was received with the following indications in accordance with the technical specifications provided by the petitioner:

Product trade name: **PIGMENTO PLUS**

Technical details of the sample:

The thick zinc sheet with polyurethane is made in 7 layers:

- Layer 1: Top polyurethane finish with internal Applus code 24/24457, a thickness of 0,020 mm, a density of 1400 kg/m³, superficial density of 0,028 kg/m².
- Layer 2: Top polyurethane primer, with internal Applus code 24/24456, a thickness of 0,015 mm, a density of 1460 kg/m³, superficial density of 0,022 kg/m².
- Layer 3,4 and 5: 3 layers of Zinc with a total thickness of 0,700 mm, a density of 7140 kg/m³, superficial density of 5 kg/m².
- Layer 6: Back polyurethane primer, with internal Applus code 24/24455, a thickness of 0,030 mm, a density of 1300 kg/m³, superficial density of 0,039 kg/m².
- Layer 7: Back polyurethane finish, with internal Applus code 24/24454, a thickness of 0,020 mm, a density of 2050 kg/m³, superficial density of 0,041 kg/m².

Fixing system: The product was applied on a calcium silicate that was fixed mechanically on a support for metal channel. (The mounting has been made according to EN 14782:2006 annex C standard.)

Manufacturer: VM BUILDING SOLUTIONS. Tour ALTAÏS, 1 place Aimé Césaire, 93 100 Montreuil, France

3- REPORT AND RESULTS IN SUPPORT OF THIS CLASSIFICATION

3.1- Reports

Name of Laboratory	Name of Petitioner	Report ref. no.	Test method and date
Applus – LGAI	VM Building Solutions SAS	24/32303889-1 M1	EN ISO 1716:2010* 12-06-2024
			EN 13823:2020+A1:2022 04-09-2024

*Due to classification standard EN 13501-1:2018 call up test standard EN ISO 1716:2010, we do not test the current version of it.

3.2- Results of the Tests

Test Method	PIGMENTO PLUS			
	CRITERIA CLASS A1	Nº TESTS	AVERAGE	COMPLIANCE
EN ISO 1182:2020	The component <i>Zinc</i> classified as A1 has not been testes according to European Commission Decision. <i>Zinc</i> is directly classified, according t Commission Decision 96/603EC of 4 October 1996 establishing the list of products belonging to Classes A1 (No contribution to fire)			
EN ISO 1716:2010	PCS ≤ 2,0 MJ/kg (1) (5)	12	25,7 MJ/kg - 1,3 MJ/m ²	YES
	PCS ≤ 2,0 MJ/kg (2) (5)		25,1 MJ/kg - 2,0 MJ/m ²	YES
	PCS ≤ 2,0 MJ/kg (3)		0,0 MJ/kg	YES
	PCS ≤ 2,0 MJ/kg (4)		1,8 MJ/kg	YES
EN 13823:2020+A1:2022	FIGRA _{0,2 MJ} ≤ 120 W/s	3	0,00	YES
	LFS < < edge of the sample	3	< to edge	YES
	THR _{600s} ≤ 7,5 MJ	3	0,35	YES
	CRITERIA subclass `s1`	Nº TESTS	AVERAGE	COMPLIANCE
	SMOGRA ≤ 30 m ² /s ²	3	2,02	YES
	TSP _{600s} ≤ 50 m ²	3	25,63	YES
	CRITERIA subclass `d0`	Nº TESTS	AVERAGE	COMPLIANCE
Fall of droplets/particles in flames within 600 s	3	NO	YES	

1. External non substantial component (Top polyurethane finish and primer)
2. External non substantial component (Back polyurethane finish and primer)
3. Substantial component (Zinc)
4. Product as a whole
5. Alternatively, any external non-substantial component having a PCS≤2,0MJ/m², provided that the product satisfies the following criteria of EN 13823: FIGRA≤20W/s and LFS<edge of specimen and THR_{600s}≤4,0MJ y s1 and d0.

4- CLASSIFICATION AND FIELD OF APPLICATION

4.1- Reference of classification

This classification has been carried out in accordance with EN 13501-1:2018: "Classification in terms of the behaviour to fire of construction products and building elements. Part 1: Classification made from the data gathered during fire reaction tests".

4.2- Classification

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

A1

The additional classification in relation to smoke production is:

-

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

-

Fire behaviour		Smoke production		Flaming droplets
A1	-	s	-	, d -

REACTION TO FIRE CLASSIFICATION: A1

This classification is only valid for the final conditions of use described in the present report.

4.3.- Field of application

- This classification is valid for the following product parameters:

The classification is only valid for the product characteristics shown, with the following parameters being extended:

*Variable parameter: Air cavity **

According to the standard EN 14782:2006 annex C: the test was performed with an air cavity of 200mm, by extension, all the cavities of the products are included in the same Euroclass.

- The classification is valid for the following final use applications:

The product PIGMENTO PLUS is intended to be used as claddings or roofing referring to EN 14782 (metallic sheets on uncontinuous Support).

Substrate	Metal channel structure
Fixing method	EN 14782:2006
Joint	Vertical joint
Air cavity	200mm cavity and ventilated
Others	-

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 of AVCP and CE marking under the Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products.

The manufacturer has made a declaration, which is held on file. This confirms that the products 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 attestation 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.

Laboratory Manager

LGAI Technological Center S.A. (APPLUS)

Responsible of Euroclasses

LGAI Technological Center S.A. (APPLUS)

The uncertainty expanded of the measure U, has been obtained by multiplying the typical measurement uncertainty by the coverage factor k, such that the coverage probability is approximately 95%

The results refer exclusively to the samples tested at the time and under the conditions indicated. The results refer exclusively to the samples tested at the time and under the conditions indicated. The decision rule agreed with the client to give a declaration of conformity with the specification or standard, is following a simple binary decision rule, in line with what is established ILAC G8.

Uncertainty associated to the Combustion Heat Determination Test: $PCS_{BecryTan840} = \pm 0,4$ MJ/Kg, $PCS_{prim269T} = \pm 0,4$ MJ/Kg, $PCS_{paper1} = \pm 0,3$ MJ/Kg $PCS_{prim269G} = \pm 0,4$ MJ/Kg, $PCS_{duro3200} = \pm 0,8$ MJ/Kg

Uncertainty associated to the Single Burned Item (SBI) Test: $FIGRA0,2MJ \pm 7,90$ W/s; $THR600s = \pm 1,65$ MJ; $SMOGRA = \pm 10,99$ m²/s²; $TSP600s = \pm 4,36$ m²; Time (Fall of droplets/particles) = N.A.

Applus+ guarantees that this task has been carried out in compliance with the requirements of our Quality and Sustainability System, and furthermore, that the contractual terms and legal regulations have been complied with. In the framework of our improvement programme, we would appreciate any comments you may deem appropriate. These should be addressed to the manager who signs this document, or to the Quality Director of Applus+, at the following address: satisfaccion.cliente@applus.com
