

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

Sponsor: Potma Oy
Teollisuustie 10
FI-95700, Pello
Finland

Prepared by: Eurofins Expert Services Oy
Kivimiehentie 4, Espoo
FI-02150 Espoo, Finland

Notified Body No: 0809

Product: **Potmacore**

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This classification report consists of four pages and may be used or reproduced in its entirety.

1 Introduction

This classification report defines the classification assigned to the product Potmacore in accordance with the procedures given in EN 13501-1:2018.

2 Details of classified product

2.1 General

The product Potmacore is defined as honeycomb panel.

2.2 Product description

The product Potmacore is described below.

Manufacturer: Potma Oy

Product description: Both side coated aluminium honeycomb panel

Diameters of core mesh: 9,6 mm (types 096), 12,8 mm (types 128), 19,2 mm (types 192)

Thicknesses of product:

- Potmacore 096, 096 C, 096 C/1: 6...30 mm
- Potmacore 128, 128 C, 128 C/1: 6...50 mm
- Potmacore 192, 192 C, 192 C/1: 6...70 mm

Structure from front to back:

- both side coated aluminium sheet, thickness of sheet $\geq 0,5$ mm
- adhesive
- aluminium honeycomb structure with adhesive (thickness of aluminium 60 μm)
- adhesive
- both side coated aluminium sheet, thickness of sheet $\geq 0,5$ mm

Coatings on aluminium sheet:

- Potmacore 096, 128, 192: epoxy primer on both sides
- Potmacore 096 C, 128 C, 192 C: polyester paint and epoxy primer on both sides
- Potmacore 096 C/1, Potmacore 128 C/1, Potmacore 192 C/1: polyester paint on one side and epoxy primer on both sides
- Reverse side coating on the inner side of the aluminium sheet
- Thickness of polyester paint: 30 $\mu\text{m} \pm 4 \mu\text{m}$
- Thickness of epoxy primer: 4 μm
- Thickness of reverse side coating: 4 $\pm 1 \mu\text{m}$

3 Test reports and test results in support of classification

3.1 Test reports

Name of laboratory	Name of sponsor	Test report	Test method and date
VTT Expert Services Ltd	Potma Oy	VTT-S-06210-17	EN 13823 27 November 2017
Eurofins Expert Services Oy	Potma Oy	EUFI29-20004819-T1	EN ISO 1716 30 November 2020

3.2 Test results

Test method	Parameter	Number of tests	Continuous parameter mean (m)	Compliance parameters
EN 13823	FIGRA _{0,2 MJ} (W/s)	3	14 ¹⁾	Compliant
	FIGRA _{0,4 MJ} (W/s)	3	4 ¹⁾	Compliant
	THR _{600s} (MJ)	3	0,9 ¹⁾	Compliant
	LFS edge	3	-	Compliant
	SMOGRA (m ² /s ²)	3	4,6 ¹⁾	Compliant
	TSP _{600s} (m ²)	3	31,6 ¹⁾	Compliant
	Flaming droplets / particles	3	-	Compliant
EN ISO 1716	PCS (MJ/kg)	3	0 ^{2),3)} , 1,3...1,7 ⁴⁾	Compliant
	PCS (MJ/m ²)		0,8 ⁵⁾ , 0,1 ^{6),7)} , 3,0 ⁸⁾ , 0,1...0,4 ⁹⁾	Compliant

1) Product Potmacore (Potmacore 096 C/1, thickness of product 25 mm, thickness of aluminium sheet 0,7 mm) with ventilated cavity (40 mm) to the substrate (calcium silicate board, 11 ± 2 mm, 870 ± 50 kg/m³)

3) Aluminium honeycomb

4) Product as a whole

2) Aluminium sheet

5) Polyester coating

6) Reverse side coating

7) Epoxy primer

8) Adhesive between the aluminium sheet and honeycomb structure

9) Adhesive in the honeycomb structure

4 Classification and field of application

4.1 Reference of classification

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

4.2 Classification

The product Potmacore in relation to reaction to fire behaviour are classified:

A2

The additional classification in relation to smoke production is:

s1

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

d0

The format of the reaction to fire classification is:

Fire behaviour		Smoke production			Flaming droplets	
A2	-	s	1	,	d	0

i.e.: A2-s1, d0

4.3 Field of application

This classification is valid with the following product parameters:

- thickness of polyester coating $\leq 35 \mu\text{m}$
- thickness of epoxy primer $\leq 4 \mu\text{m}$
- thickness of reverse side coating $\leq 5 \mu\text{m}$
- thickness of aluminium sheet $\geq 0,5 \text{ mm}$
- all thicknesses of product
- all diameters of core mesh

The classification is valid for the following end use application:

- with or without ventilated cavity to the substrate of class A1 or A2-s1,d0 with a density of at least 650 kg/m^3
- without vertical or horizontal joints
- with mechanical fixings

5 Limitations

This classification report does not represent type approval or certification of the products.

Espoo, 30 November 2020

Tatu Waltari
Expert

Sanna Järvinen
Expert

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