

Title:

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

Notified Body No:

0833

Product Name:

"Alupanel FR Signal White
G/M"

Report No:

WF 420361

Issue No:

1

Prepared for:

Multipanel UK Ltd,
Unit 2 Millyard Way,
Eythorne,
Dover,
CT15 4NL

Date:

1st November 2019

1. Introduction

This classification report defines the classification assigned to "Alupanel FR Signal White G/M", a Aluminium composite panel with FR core, in line with the procedures given in EN 13501-1:2018.

2. Details of classified product

2.1 General

The product, "Alupanel FR Signal White G/M", a Aluminium composite panel with FR core, is defined as being suitable for construction applications, excluding flooring and linear pipe thermal insulation.

2.2 Product description

The product, "Alupanel FR Signal White G/M", is fully described below and in the test reports provided in support of classification listed in Clause 3.1.

General description		Aluminium composite panel with FR core
Product reference of overall composite		"Alupanel FR Signal White G/M"
Name of manufacturer of overall composite		Multipanel UK Ltd
Thickness of overall composite		4mm (stated by sponsor) 4.88mm (determined by Warringtonfire)
Weight per unit area of overall composite		4.342kg/m ² (stated by sponsor) 5.49kg/m ² (determined by Warringtonfire)
Top coat (Test face)	Generic type	Polyethylene (PE) paint coating
	Product reference	"9003 Signal White"
	Name of manufacturer	Flycrane Paints
	Colour reference	"PE-XM5260-4"
	Number of coats	One
	Application rate	See Note 1 below
	Application thickness	22 microns
	Specific gravity	See Note 1 below
	Application method	Continuous coil coating process
	Curing process	Hot air oven
Flame retardant details		See Note 2 below
Aluminium	Generic type	5005 Alloy H24
	Product reference	"MET1C20190813-1"
	Detailed description	Aluminium Alloy Coil
	Name of manufacturer	Jiangyin Tianhong
	Thickness	0.28 mm
	Weight per unit area	0.82 kg/m ²
	Colour reference	"Silver"
Flame retardant details		This component is inherently flame retardant

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Adhesive	Generic type	Hotmelt adhesive polymer resin
	Product reference	"3400F"
	Name of manufacturer	Shin Kwang Hotmelt Co., Ltd
	Thickness	50 microns
	Weight per unit area	0.09 kg/m ²
	Colour reference	"Clear"
	Flame retardant details	See Note 2 below
Core*	Generic type	See Note 1 below
	Product reference	"IQ-PE Com HFFR"
	Detailed description	Halogen free flame retardant compound with a composition of 75% PE 25% FR
	Name of manufacturer	Poly-IQ
	Thickness	3.4mm
	Density	1.09 g/mm ³
	Weight per unit area	2.702kg/m ²
	Colour reference	"Beige"
Flame retardant details	See Note 1 below	
Adhesive	Generic type	Hotmelt adhesive polymer resin
	Product reference	"3400F"
	Name of manufacturer	Shin Kwang Hotmelt Co., Ltd
	Thickness	50 microns
	Weight per unit area	0.09 kg/m ²
	Colour reference	"Clear"
	Flame retardant details	See Note 2 below
Aluminium	Generic type	5005 Alloy H24
	Product reference	"MET1C20190813-1"
	Detailed description	Aluminium Alloy Coil
	Name of manufacturer	Jiangyin Tianhong
	Thickness	0.28 mm
	Weight per unit area	0.82 kg/m ²
	Colour reference	"Silver"
	Flame retardant details	This component is inherently flame retardant
Joint details		No joints were incorporated in the test specimen
Mounting and fixing details		A 40mm ventilated cavity was situated between the reverse face of the specimens and the calcium silicate backing board
Brief description of manufacturing process		Automated production line. After core materials have been heated and mixed they are co-extruded with the adhesive in to compounding rollers between the two aluminium skins. The compositing line runs through a cooling system and then easy-peel protective film is attached to the surface before the material is finally cut to size by the computer-controlled guillotine.
* Warringtonfire have not measured the PCS (MJ/kg) value of this core material as part of this report.		

Note 1: The sponsor was unable to provide this information

Note 2: The sponsor of the test has confirmed that no flame retardant additives were utilised in the production of the component.

3. Test reports & test results in support of classification.

3.1 Test reports.

Name of Laboratory	Name of sponsor	Test reports Nos.	Test method
Warringtonfire	Multipanel UK Ltd	WF 420360	EN ISO 11925
Warringtonfire	Multipanel UK Ltd	WF 420359	BS EN 13823

3.2 Test results

Test method & test number	Parameter		No. tests	Results	
				Continuous parameter - Max/Mean (m)	Compliance parameters
BS EN 13823	FIGRA _{0.2MJ}		3	57.52 W/s	Compliant
	FIGRA _{0.4MJ}			57.52 W/S	Compliant
	THR _{600s}			7.10 MJ	Compliant
	SMOGRA			1.16 m ² s ²	Compliant
	TSP _{600s}			27.60 m ²	Compliant
	Lateral Flame Spread to End of Specimen?			None	Compliant
	Fall of Flaming Drop/Particle?			None	Compliant
	Flaming of Fallen Particle Exceeding 10s?			None	Compliant
EN ISO 11925-2	30s exposure - surface	F _s	6	0 mm	Compliant
		Flaming droplets/particles		None	Compliant
	30s exposure – edge	F _s		0 mm	Compliant
		Flaming droplets/particles		None	Compliant

4. Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with clause 8 of EN 13501-1:2018.

4.2 Classification

The product, "Alupanel FR Signal White G/M", a Aluminium composite panel with FR core, in relation to its reaction to fire behaviour is classified:

B

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 for construction applications, excluding flooring and linear pipe thermal insulation is:

Fire Behaviour		Smoke Production			Flaming Droplets	
B	-	s	1	,	d	0

i.e. **B – s1 , d0**

Reaction to fire classification: B - s1, d0

4.3 Field of application

This classification is valid for the following end use applications:

- i) Construction applications applied over any substrate with a minimum density of 870kg/m^3 , having a minimum thickness of 9mm and a fire performance of A2-s1,d0 or better
- ii) Air gap details - $\geq 0\text{mm}$ allowed

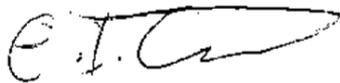
This classification is also valid for the following product parameters:

Facing thickness	0.28 and greater
Facing weight/area	0.82 kg/m ² and greater
Core density	No variation allowed
Product colour	No variation allowed
Core thickness	No variation allowed
Core composition	No variation allowed
Adhesive type and app.rate	No variation allowed
Product composition	No further variation allowed
Product construction	No further variation allowed
Joints	Only allowed to be mounted as a continuous flat sheet. No joints allowed
Air gap details	≥ 0mm allowed

5. Limitations

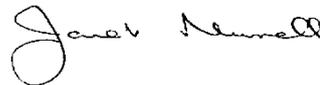
This document does not represent type approval or certification of the product.

SIGNED



.....
Euan Gardner
Junior Certification Engineer
Technical Department

APPROVED



.....
Janet Murrell
Technical Manager
Technical Department
On behalf of **Warringtonfire**

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