

**Title:**

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

**Notified Body No:**

0833

**Product Names:**

"Vitracore G2"

**Report No:**

418244

**Issue No:**

1

**Prepared for:**

Fairview Architectural Pty  
Ltd,  
18-20 Donald Street,  
Lithgow NSW 2790,  
Australia

**Date:**

9<sup>th</sup> September 2019

## 1. Introduction

This classification report defines the classification assigned to “Vitracore G2”, a bonded aluminium panel with a profiled aluminium core in line with the procedures given in EN 13501-1:2018.

## 2. Details of classified product

### 2.1 General

The product, “Vitracore G2”, a bonded aluminium panel with a profiled aluminium core, is defined as being suitable for construction applications, excluding flooring and linear pipe thermal insulation.

### 2.2 Product description

The product, “Vitracore G2”, is fully described below and in the test reports provided in support of classification listed in Clause 3.1.

General description		A bonded aluminium panel with a profiled aluminium core
Product reference of overall composite		“Vitracore G2”
Name of manufacturer of overall composite		Fairview
Thickness of overall composite		4mm (stated by sponsor) 4.1mm (determined by <a href="#">Warringtonfire</a> )
Weight per unit area of overall composite		4.6kg/m <sup>2</sup> (stated by sponsor) 4.42kg/m <sup>2</sup> (determined by <a href="#">Warringtonfire</a> )
Top coat (Test face)	Generic type	PVDF
	Product reference	“PVDF Top Coat”
	Name of manufacturer	PPG
	Colour reference	“Poppy Red 1677”
	Number of coats	One
	Application rate	24g/m <sup>2</sup>
	Application thickness	17 -20 microns
	Specific gravity	1.2 ± 0.03
	Application method	Roller coil coating
	Curing process	Stove baking
Flame retardant details		<b>See Note 1 below</b>
Primer	Generic type	Polyester
	Product reference	“Polyester Primer”
	Name of manufacturer	Yali
	Colour reference	“Primer 0000”
	Number of coats	One
	Application rate	12.2g/m <sup>2</sup>
	Application thickness	6 -9 microns
	Specific gravity	1.36
	Application method	Roller coil coating
	Curing process	Stove baking
Flame retardant details		<b>See Note 1 below</b>

Aluminium	Generic type	Aluminium
	Product reference	"Face Skin"
	Detailed description	Aluminium sheet
	Name of manufacturer	<b>See Note 2 below</b>
	Thickness	0.7mm
	Density	2.7g/cm <sup>3</sup>
	Weight per unit area	1.89kg/m <sup>2</sup>
	Colour reference	"Silver"
	Flame retardant details	This component is inherently flame retardant
Adhesive	Generic type	EVA Resin
	Product reference	"30E753"
	Detailed description	EVA resin extruded to a thin film
	Name of manufacturer	<b>See Note 3 below</b>
	Thickness	80±10 microns (2 layers of adhesive)
	Weight per unit area	76g/m <sup>2</sup>
	Density	0.938/cm <sup>3</sup>
	Colour reference	White, semi-translucent
	Flame retardant details	<b>See Note 1 below</b>
Profiled core	Generic type	Aluminium
	Product reference	"Profiled Core"
	Detailed description	0.3mm aluminium sheet, profiled to a depth of 2.8mm
	Name of manufacturer	<b>See Note 2 below</b>
	Thickness	2.8mm
	Density	2.7g/cm <sup>3</sup>
	Weight per unit area	0.81kg/m <sup>2</sup>
	Colour reference	"Silver"
	Flame retardant details	This component is inherently flame retardant
Adhesive	Generic type	EVA Resin
	Product reference	"30E753"
	Detailed description	EVA resin extruded to a thin film
	Name of manufacturer	<b>See Note 3 below</b>
	Thickness	80±10 microns (2 layers of adhesive)
	Weight per unit area	76g/m <sup>2</sup>
	Density	0.938/cm <sup>3</sup>
	Colour reference	White, semi-translucent
	Flame retardant details	<b>See Note 1 below</b>
Aluminium	Generic type	Aluminium
	Product reference	"Rear Skin"
	Detailed description	Aluminium sheet
	Name of manufacturer	<b>See Note 2 below</b>
	Thickness	0.5mm
	Density	2.7g/cm <sup>3</sup>
	Weight per unit area	1.35kg/m <sup>2</sup>
	Colour reference	"Silver"
	Flame retardant details	This component is inherently flame retardant

Primer	Generic type	Polyester
	Product reference	"Polyester Primer"
	Name of manufacturer	Yali
	Colour reference	"Primer 0000"
	Number of coats	One
	Application rate	12.2g/m <sup>2</sup>
	Application thickness	6 -9 microns
	Specific gravity	1.36
	Application method	Roller coil coating
	Curing process	Stove baking
	Flame retardant details	<b>See Note 1 below</b>
Mounting and fixing details		A 40mm ventilated cavity was situated between the reverse face of the specimens and the calcium silicate backing board
Joint details		Horizontal and verticals details included
Brief description of manufacturing process		Liquid coated on the coils with high temperature

**Note 1:** The sponsor of the test has confirmed that no flame retardant additives were utilised in the production of the component.

**Note 2:** The sponsor was unwilling to provide this information.

**Note 3:** The sponsor of the test has provided this information but at the specific request of the sponsor, these details have been omitted from the report and are instead held on the confidential file relating to this investigation.

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

#### 3.1 Test reports.

Name of Laboratory	Name of sponsor	Test reports/extended application report Nos.	Test method / extended application rules & date
Warringtonfire	Fairview Architectural Pty Ltd	WF 417795 (full) WF 417796, 417798 (indicative)	BS EN 13823
Warringtonfire	Fairview Architectural Pty Ltd	WF 417747, 417748, 417749, 417750, 417795	EN ISO 1716
Warringtonfire	Fairview Architectural Pty Ltd	WF 418236	EN ISO 1716 Composite Report
Warringtonfire	Fairview Architectural Pty Ltd	WF 418243	EN 15117

#### 3.2 Test results

Test method & test number	Parameter	No. tests		Results	
				Continuous parameter - Max/ Mean (m)	Compliance with parameters
BS EN 13823-2	FIGRA <sub>0.2MJ</sub>	3	<b>Formal test average</b>	16.53 W/s (full)	Compliant
			Indicative 1	0.00, 0.00 W/s (indic)	
			Indicative 2		
	FIGRA <sub>0.4MJ</sub>		<b>Formal test average</b>	0.00 W/S (full)	Compliant
			Indicative 1	0.00, 0.00 W/S (indic)	
			Indicative 2		
	THR <sub>600s</sub>		<b>Formal test average</b>	0.61 MJ (full)	Compliant
			Indicative 1	0.39, 0.71 MJ (indic)	
			Indicative 2		
	LFS	<b>Formal test average</b>	None (full)	Compliant	
		Indicative 1	None (indic)		
		Indicative 2			
SMOGRA	<b>Formal test average</b>	0.00 m <sup>2</sup> /s <sup>2</sup> (full)	Compliant		
	Indicative 1	0.00, 0.00 m <sup>2</sup> /s <sup>2</sup> (indic)			
	Indicative 2				

	TSP <sub>600s</sub>		<b>Formal test average</b>	21.92 m <sup>2</sup> (full) 12.38, 14.75 m <sup>2</sup> (indic)	Compliant
	Flaming droplets lasting > 10s		Indicative 1	None (full) None (indic)	Compliant
			Indicative 2		
			<b>Formal test average</b>		
			Indicative 1		
			Indicative 2		
EN ISO 1716	Top Coat - PCS (b)	3		0.6818 MJ/m <sup>2</sup> (full) 0.406, 0.6244 MJ/m <sup>2</sup> (indic)	Compliant
	Primer – PCS (b)			0.148 MJ/m <sup>2</sup>	Compliant
	Aluminium – PCS (a)	Deemed to satisfy (0.00)		Compliant	
	Adhesive – PCS (d)	3		3.4242 MJ/m <sup>2</sup>	Compliant
	Profiled core - PCS (a)	Deemed to satisfy (0.00)		Compliant	
	Adhesive – PCS (d)	3		3.4242 MJ/m <sup>2</sup>	Compliant
	Aluminium – PCS (a)	Deemed to satisfy (0.00)		Compliant	
	Primer – PCS (b)	3		0.148 MJ/m <sup>2</sup>	Compliant
	For the product as a whole – PCS (e)	N/a		1.8374 MJ/kg	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, EN 15725:2009 and EN/TS 15117:2005.

##### 4.2 Classification

The product, "Vitracore G2", a bonded aluminium panel with a profiled aluminium core, 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**

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>A2</b>	-	<b>s</b>	<b>1</b>	,	<b>d</b>	<b>0</b>

i.e. **A2– s1, d0**

**Reaction to fire classification: A2 - 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<sup>3</sup>, having a minimum thickness of 11mm and a fire performance of A2-s1,d0 or better
- ii) Air gap details - ≥ 40mm allowed

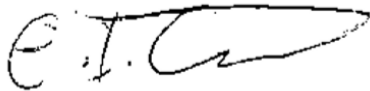
This classification is also valid for the following product parameters:

Product colour	Any variation allowed
Product thickness	No variation allowed
Product weight per unit area	No variation allowed
Product composition	No variation allowed
Product construction	No variation allowed
Mounting and fixing details	No variation allowed
Air gap details	≥ 40mm allowed

### 5. Limitations

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

#### SIGNED



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

#### APPROVED



.....  
**Matthew Dale**  
Senior Certification Engineer  
Technical Department  
On behalf of **Warringtonfire**

This copy has been produced from a .pdf format electronic file that has been provided by **Warringtonfire** to the sponsor of the report and must only be reproduced in full. Extracts or abridgements of reports must not be published without permission of **Warringtonfire**. The pdf copy supplied is the sole authentic version of this document. All pdf versions of this report bear authentic signatures of the responsible **Warringtonfire** staff.

All work and services carried out by Warringtonfire Testing and Certification Limited are subject to, and conducted in accordance with, the Standard Terms and Conditions of Warringtonfire Testing and Certification Limited, which are available at <https://www.element.com/terms/terms-and-conditions> or upon request.