Exova Warringtonfire
Holmesfield Road
Warrington
WA1 2DS
United Kingdom

T : +44 (0) 1925 655 116
F : +44 (0) 1925 655 419
E : warrington@exova.com
W: www.exova.com

Testing. Advising. Assuring.

Title:

CLASSIFICATION OF REACTION TO FIRE PERFORMANCE IN ACCORDANCE WITH EN 13501-1:2007+A1: 2009.

Notified Body No:

0833

Product Name:

"Vitrabond A2 Aluminium Composite Panel"

Report No:

WF 367673

Issue No:

1

Prepared for:

Valcan Ltd.

Unit 7 Robins Drive
Castlefields Industrial Estate
Bridgwater
TA6 4DL

Date:

17th June 2016

UKAS TESTING
0249

1. Introduction

This classification report defines the classification assigned to "Vitrabond A2 Aluminium Composite Panel", an aluminium composite panel, in accordance with the procedures given in EN 13501-1:2007

2. Details of classified product

2.1 General

The product, "Vitrabond A2 Aluminium Composite Panel", is defined as being suitable for construction applications, excluding flooring and linear pipe thermal insulation.

2.2 Product description

The product, "Vitrabond A2 Aluminium Composite Panel", 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 a mineral core
Product reference of composite		"Vitrabond A2 Aluminium Composite Panel"
Thickness of composite		4.00 mm (stated by sponsor) 4.15 mm (determined by **Exova Warringtonfire**)
Weight per unit area of composite		8 kg/m² (stated by sponsor) 8.32 kg/m² (determined by **Exova Warringtonfire**)
Top coat (test face)	Product reference	"PVDF Paint"
	Generic type	Polyvinylidene fluoride (PVDF)
	Name of manufacturer	**See Note 1 below**
	Colour reference	"Dark Grey"
	Number of coats	Two
	Specific gravity	**See Note 1 below**
	Application thickness	25 microns ± 2% (applied as 5 microns then 20 microns)
	Application method	Roll applicator
	Curing process	**See Note 1 below**
	Flame retardant details	**See Note 2 below**
Primer	Product reference	"Polyester Paint"
	Generic type	Polyester
	Name of manufacturer	**See Note 1 below**
	Colour reference	**See Note 1 below**
	Number of coats	One
	Specific gravity	**See Note 1 below**
	Application thickness	5 microns ± 2%
	Application method	Roll coater
	Curing process	**See Note 1 below**
	Flame retardant details	**See Note 1 below**

Continued on next page

Aluminium	Product reference	"Aluminium 3105 H 46"
	Generic type	Aluminium
	Name of manufacturer	**See Note 1 below**
	Thickness	0.50 mm ± 2%
	Density	2.71 g/cm³
	Flame retardant details	This component is inherently flame retardant
Adhesive	Product reference	"Adhesive Film"
	Generic type	Polyethylene
	Name of manufacturer	**See Note 1 Below**
	Specific gravity	**See Note 1 Below**
	Thickness	80µm
	Application method	Heat pressed roll
	Curing process	**See Note 1 Below**
	Flame retardant details	**See Note 1 Below**
Core	Product reference	"Inorganic Mineral Core"
	Detailed description / composition details	**See Note 1 below**
	Name of manufacturer	**See Note 3 below**
	Thickness	3 mm
	Density	1.75 g/cm³
	Colour reference	"Grey"
	Flame retardant details	**See Note 1 below**
Adhesive	Product reference	"Adhesive Film"
	Generic type	Polyethylene
	Name of manufacturer	**See Note 1 Below**
	Specific gravity	**See Note 1 Below**
	Thickness	80µm
	Application method	Heat pressed roll
	Curing process	**See Note 1 Below**
	Flame retardant details	**See Note 1 Below**
Aluminium	Product reference	"Aluminium 3105 H 46"
	Generic type	Aluminium
	Name of manufacturer	**See Note 1 below**
	Thickness	0.50 mm ± 2%
	Density	2.71 g/cm³
	Flame retardant details	This component is inherently flame retardant

Continued on next page

Primer	Product reference	"Polyester Paint"
	Generic type	Polyester
	Name of manufacturer	**See Note 1 below**
	Colour reference	**See Note 1 below**
	Number of coats	One
	Specific gravity	**See Note 1 below**
	Application thickness	5 microns ± 2%
	Application method	Roll coater
	Curing process	**See Note 1 below**
	Flame retardant details	**See Note 1 below**
Coating (reverse face)	Product reference	"Epoxy Polyester Paint"
	Generic type	Epoxy polyester
	Name of manufacturer	**See Note 1 below**
	Colour reference	"Light Grey"
	Number of coats	One
	Specific gravity	**See Note 1 below**
	Application thickness	5 microns ± 2%
	Application method	Roll Coater
	Curing process	**See Note 1 below**
	Flame retardant details	**See Note 1 below**
Air space details		A 40mm ventilated cavity was situated between the reverse face of each specimen and the particleboard substrate having a density of 680kg/m^3 ± 50
Brief description of manufacturing process		**See Note 1 below**

Note 1: The sponsor was unwilling to provide this information.

Note 2: The sponsor was unable 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
Exova Warringtonfire	Valcan Ltd	WF 367654	EN 13823
		WF 367656, 367655, 367657, 367658, 367359	EN ISO 1716
		WF 367660	EN ISO Composite Summary report

3.2 Test results

Test method & test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance parameters
EN 13823	FIGRA $_{0.2MJ}$	3	7.87	Compliant
	FIGRA $_{0.4MJ}$		7.54	Compliant
	THR $_{600s}$		1.19	Compliant
	LFS		None	Compliant
	SMOGRA		0.00	Compliant
	TSP_{600s}		17.32	Compliant
EN ISO 1716	Topcoat - PCS (b)	3	1.0762 MJ/m²	Compliant
	Primer - PCS (b)	3	0.2448 MJ/m²	Compliant
	Aluminium - PCS (a)	Deemed to satisfy (0.00)		Compliant
	Adhesive - PCS (d)	3	3.5513 MJ/m²	Compliant
	Core - PCS (a)	3	2.4680 MJ/Kg	Compliant
	Adhesive - PCS (d)	3	3.5513 MJ/m²	Compliant
	Aluminium - PCS (a)	Deemed to satisfy (0.00)		Compliant
	Primer –PCS (b)		0.2448 MJ/m²	
	Reverse coating - PCS (b)	3	0.3278 MJ/m^2	Compliant
	For the product as a whole PCS (e)	Summary result	2.6837 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 13501-1:2007+A1: 2009.

4.2 Classification

The product, "Vitrabond A2 Aluminium Composite Panel", an aluminium composite panel, 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 products excluding flooring and linear pipe thermal insulation is:

Fire Behaviour		Smoke Production			Flaming Droplets	
A2	**-**	**s**	**1**	**,**	**d**	**0**

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) Wall and ceiling applications

ii) Mechanically fixed with a minimum airspace of 40mm over any substrate having a minimum thickness of 12mm, a minimum density of 680kg/^{3} and a fire performance of D-s2, d0 or better.

This classification is also valid for the following product parameters:

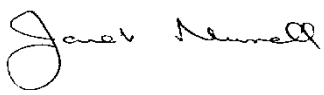
Product thickness	No variation allowed
Product density	No variation allowed
Product composition	No variation allowed

SIGNED

……

Matthew Dale
Senior Certification Engineer

APPROVED



……

Janet Murrell
Technical Manager
on behalf of **Exova Warringtonfire**