Warringtonfire
Holmesfield Road
Warrington
WA1 2DS

T: +44 (0)1925 655 116
info.warrington@warringtonfire.com
warringtonfire.com

Title:

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

Notified Body No:

0833

Product Name:

“Ceramapanel A1”

Report No:

WF 410112

Issue No:

1

Prepared for:

Valcan Ltd
Unit 7 Robins Drive
Castefields Industrial Estate
Bridgwater
United Kingdom
TA6 4DL

Date:

4th March 2019

UKAS TESTING
0249

1. Introduction

This classification report defines the classification assigned to "Ceramapanel A1", a natural fibre-cement flat sheet coated with paint or with added pigment, in line with the procedures given in EN 13501-1:2007+A1: 2009.

2. Details of classified product

2.1 General

The product, "Ceramapanel A1", a natural fibre-cement flat sheet coated with paint or with added pigment, is defined as being suitable for construction applications.

2.2 Product description

The product, "Ceramapanel A1", is fully described below and in the test reports provided in support of classification listed in Clause 3.1.

General description		Double Pressed and Autoclaved Fibre Cement Flat Board
Product reference of overall composite		"Ceramapanel A1"
Name of manufacturer of overall composite		Valcan Ltd
Thickness of overall composite		8mm / 10mm / 12mm
Weight per unit area of overall composite		Kg/m^2 = 14.4 / 18 / 21.6
Coating Option 1 - Ceramapanel Natural Raw+	Generic type	Acrylic Anti-Graffiti coating
	Product reference	**See Note 1**
	Name of manufacturer	**See Note 1**
	Colour reference	Clear coating
	Number of coats	1
	Application rate / thickness per coat	40-60g/m^2
	Density / specific gravity	**See Note 2**
	Application method	By Roller
	Curing process per coat	IR Heated + UV Cured
	Trade name of flame retardant	N/A
	Generic type of flame retardant	N/A
	Amount of flame retardant	N/A
Coating Option 2- Ceramapanel Painted	Generic type	Acrylic Paint + Acrylic Anti-Graffiti coating
	Product reference	**See Note 1**
	Name of manufacturer	**See Note 1**
	Colour reference	As required
	Number of coats	2
	Application rate / thickness per coat	Acrylic Paint 30-40g/m^2 Acrylic Anti-Graffiti coating 10-20g/m^2
	Density / specific gravity	**See Note 2**
	Application method	By Roller

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	Curing process per coat	IR Heated + UV Cured
	Trade name of flame retardant	N/A
	Generic type of flame retardant	N/A
	Amount of flame retardant	N/A
Coating Option 3 - Ceramapanel Natural Raw	Generic type	Hydrophobic coating
	Product reference	**See Note 1**
	Name of manufacturer	**See Note 1**
	Colour reference	Clear coating
	Number of coats	1
	Application rate / thickness per coat	40-60g/m^2
	Density / specific gravity	**See Note 2**
	Application method	Flow coating
	Curing process per coat	Drying Process by Ovens
	Trade name of flame retardant	N/A
	Generic type of flame retardant	N/A
	Amount of flame retardant	N/A
Fibre cement board	Generic type	Fibre Cement board
	Product reference	Ceramapanel
	Detailed description / composition details	Asbestos free, double pressed and autoclaved through coloured flat boards, reinforced with mineralized cellulose and glass fibres
	Name of manufacturer	**See Note 3**
	Thickness	8mm / 10mm / 12mm
	Density / weight per unit area	14.4 / 18 / 21.6 kg/m^2
	Colour reference	Through coloured
	Trade name of flame retardant	N/A
	Generic type of flame retardant	N/A
	Amount of flame retardant	N/A
Mounting and fixing details		Screwed on metal frame, with 40mm air gap from Gypsum plasterboard substrate

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 Nos.	Test method
Istituto Giordano S.p.A	Valcan Ltd	350434/11332/CPR	BS EN 13823
Istituto Giordano S.p.A	Valcan Ltd	347132/11043/CPR 347133/11044/CPR	EN ISO 1716
LAPI	Valcan Ltd	660.1DC0011/14	EN ISO 1716
Warringtonfire	Valcan Ltd	WF 410891	EN ISO 1716 - Summary Report
LAPI	Valcan Ltd	660.0IS0010/14	EN ISO 1182
LAPI	Valcan Ltd	660.0DC0050/14	EN 13501-1
Istituto Giordano S.p.A	Valcan Ltd	350435/11333/CPR	EN 13501-1

3.2 Test results

Test method & test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance parameters
BS EN ISO 1182 (fibre cement board)	Furnace thermocouple temperature rise (°C)	5	4.74 ºC	Compliant
	Duration of sustained flaming (seconds)		None	Compliant
	Mass Loss (%)		11.5 %	Compliant
EN ISO 1716	Acrylic Paint+ Acrylic Anti-Graffiti coating - PCS (b) – External non-substantial component	3	1.6 MJ/m^2	Compliant
	Hydrophobic Coating - PCS (b) – External non-substantial component		2.0 MJ/m^2	Compliant
	Fibre cement board – PCS (a) – Substantial component		1.12 MJ/kg	Compliant
	For the product as a whole – PCS (e)	N/A	1.3 MJ/kg (Hydrophobic Coating)	Compliant
			1.2 MJ/kg* (Acrylic Paint+ Acrylic Anti-Graffiti coating)	
Note 1: The product did not pass the requirements for PCS (b), however, the product is deemed to be compliant if in accordance with Table 1, Note C of EN 13501-1, any external non-substantial component having a PCS (c) ≤ 2.0 MJ/m², provided that the product satisfies the following criteria of EN 13823: FIGRA ≤20 W/s & LFS <edge of specimen & THR≤ 4.0MJ & S1 & d0				
BS EN 13823 (fibre cement board w/hydrophobic coating)	$FIGRA_{0.2MJ}$	3	0.0 W/s	Compliant
	$FIGRA_{0.4MJ}$		0.0 W/S	Compliant
	THR_{600s}		0.4 MJ	Compliant
	SMOGRA		0.0 m^2s^2	Compliant
	TSP_{600s}		20 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

**A decision was made by Istituo Giordano and subsequently agreed with by Warringtonfire that the 'Ceramapanel Natural Raw+' transparent acrylic paint possesses a lower PCS (MJ/m^2) value to the 'Ceramapanel Painted' coating due the latter being an identical product with the addition of coloured pigments.*

4. Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with clause 8 and 9 of EN 13501-1:2007+A1: 2009.

4.2 Classification

The product, "Ceramapanel A1", a natural fibre-cement flat sheet coated with paint or with added pigment, in relation to its reaction to fire behaviour is classified:

Reaction to fire classification: A1/ A1$_{FL}$

4.3 Field of application

This classification is valid for the following end use applications:

i) Construction applications – Floorings, ceiling elements or non-structural walls
ii) Construction applications applied over any substrate with a minimum density of 700kg/m^3, having a minimum thickness of 12.5mm and a fire performance of A2-s1,d0 or better
iii) Construction applications - Free standing

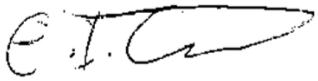
This classification is also valid for the following product parameters:

Coating type	Coating option 1 OR 2 OR 3 OR no coating allowed
Coating application rate	No variation allowed
Fibre cement board thickness	≥8mm allowed
Fibre cement board density	No variation allowed
Product composition	No variation allowed
Product construction	No variation allowed
Junction	Joint opening width ≤ 8mm
Air gap details	≥ 40mm allowed

5. Limitations

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

SIGNED



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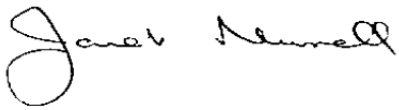
Euan Gardner
Junior Certification Engineer
Technical Department

APPROVED



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