
Title:

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

Notified Body No:

0833

Product Name:

Hardie Panel

Report No:

WF 426884

Issue No:

3

Prepared for:

James Hardie Europe GmbH,
Bennigsen-Platz 1,
40474 Dusseldorf,
Germany

Date:

24th March 2020

1. Introduction

This classification report defines the classification assigned to “HardiePanel”, a decoratively coated fibre cement board based cladding, in line with the procedures given in EN 13501-1: 2018.

2. Details of classified product

2.1 General

The product, “HardiePanel”, is defined as being suitable for construction applications, excluding flooring and linear pipe thermal insulation.

2.2 Product description

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

General description		A decoratively coated, fibre cement board based cladding or board fixed to a wooden frame
Overall thickness of composite		100mm (determined by Warringtonfire)
Overall weight per unit area of composite		19.58kg/m ² (determined by Warringtonfire)
Product reference		“HardiePanel”
Generic type of cladding		Fibre cement based board
Name of manufacturer		James Hardie® Building Products
Final coating product (face)	Generic type	Water based acrylic topcoat
	Name of manufacturer	Valspar Corporation
	Product reference	“LWR8717”
	Number of coats	Two
	Application rate (total)	130g/m ²
	Application method	High Velocity Hot Air (HVHA)
	Specific gravity	1.18 (wet)
	Flame retardant details	See Note 1 below
Primer coating product	Curing process per coat	Curing is achieved via a continuous oven inside the finishing process
	Generic type	Water based acrylic / epoxy
	Name of manufacturer	Valspar Corporation
	Product reference	“WECO103 / CEC0143”
	Number of coats	One
	Application rate	55g/m ²
	Application method	High Velocity Hot Air (HVHA)
	Specific gravity	See Note 2 below
	Flame retardant details	See Note 1 below
	Curing process	Curing is achieved via a continuous oven inside the finishing process

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Fibre cement board	Product reference	"HardiePanel"
	Generic type	Fibre cement based board
	Detailed description / composition details	Sand, Portland Cement, non-asbestos fibres and additives
	Name of manufacturer	James Hardie Building Products Ltd
	Thickness	8mm
	Density	1300kg/m ³
	Colour	"Grey"
	Flame retardant details	See Note 1 below
Wooden frame (as per EN 12467)	Product reference	See Note 2 below
	Generic type	
	Name of supplier	
	Thickness	
	Density	
Mineral wool insulation	Product reference	"Rockwool Slab RWA45"
	Generic type	Mineral wool Insulation
	Detailed description / composition details	Stone wool produced from diabase rock
	Name of manufacturer	Rockwool
	Thickness	50mm
	Density	45kg/m ³
	Colour	Yellow
	Flame retardant details	See Note 2 below
Mounting and fixing details		A 20mm or 40mm ventilated cavity was situated between the reverse face of the specimens and the mineral wool substrate.
Joint details		Closed vertical joints and open horizontal joints with a width of 10mm were included in the specimens. Additional testing included both vertical and horizontal joints of width 10mm in the specimens.
Brief description of manufacturing process		The board are manufactured by a Hatschek machine, pressed, cured, autoclaved, trimmed and sanded. Finally treated on the surfaces with a water-repellent agent.

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 unable to provide this information.

3. Test reports/extended application reports & test results in support of classification

3.1 Test reports/extended application reports

Name of Laboratory	Name of sponsor	Test reports/extended application report Nos.	Test method / extended application rules & date
Warringtonfire	James Hardie Europe BV	WF 165031, WF 165032	EN ISO 1716: 2002
Warringtonfire	James Hardie Europe BV	WF 404483	EN ISO 1716: 2010
Warringtonfire	James Hardie Europe GmbH	WF 424170 (formal), WF 424171 (indicative)	EN 13823: 2010 + A1: 2014
Warringtonfire	James Hardie Europe GmbH	WF 503328, WF 503329	EN 13823: 2020
Warringtonfire	James Hardie Europe GmbH	WF 426883 (Issue 3)	EN/TS 15117

3.2 Test results

Test method & test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance parameters
EN ISO 1716	Coating system – PCS (b), comprising: • Topcoat - PCS (b) • Primer - PCS (b) Core - PCS (a)	3	3.9073MJ/m ²	-
		3	2.7737 MJ/m ²	-
		3	1.1336 MJ/m ²	-
		3	1.1359 MJ/Kg	-
	For the product as a whole PCS (e)	Summary result	1.4852 MJ/Kg	-
EN 13823	FIGRA _{0.2MJ}	Formal – WF 424170	19 W/s	-
		Indicative – WF 424171	11 W/s	
		Indicative – WF 503328	30 W/s	
		Indicative – WF 503329	5 W/s	

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EN 13823 (contd.)	FIGRA _{0.4MJ}	Formal – WF 424170	19 W/s	-
		Indicative – WF 424171	11 W/s	
		Indicative – WF 503328	30 W/s	
		Indicative – WF 503329	5 W/s	
	THR _{600s}	Formal – WF 424170	1.1 MJ	-
		Indicative – WF 424171	0.6 MJ	
		Indicative – WF 503328	1.6 MJ	
		Indicative – WF 503329	0.5 MJ	
	LFS	Formal – WF 424170	-	Compliant
		Indicative – WF 424171	-	
		Indicative – WF 503328	-	
		Indicative – WF 503329	-	
	SMOGRA	Formal – WF 424170	7 m ² s ²	-
		Indicative – WF 424171	6 m ² s ²	
		Indicative – WF 503328	2 m ² s ²	
		Indicative – WF 503329	2 m ² s ²	
	TSP _{600s}	Formal – WF 424170	7 m ²	-
		Indicative – WF 424171	5 m ²	
		Indicative – WF 503328	11 m ²	
		Indicative – WF 503329	12 m ²	
	Fall of Flaming Droplet/Particle?	Formal – WF 424170	-	Compliant
		Indicative – WF 424171	-	
		Indicative – WF 503328	-	
		Indicative – WF 503329	-	

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EN 13823 (contd.)	Flaming of Fallen Particle Exceeding 10s?	Formal – WF 424170	-	Compliant
		Indicative – WF 424171	-	
		Indicative – WF 503328		
		Indicative – WF 503329	-	

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 12467: 2012 + A2: 2018, EN 15725: 2010 and EN/TS 15117: 2005.

4.2 Classification

The product, "HardiePanel", a decoratively coated fibre cement board based cladding, 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	
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) Construction applications used with or without thermal insulation over any substrate having a fire performance of A2-s1, d0 or better (excluding paper faced gypsum plasterboard), as long as a ventilated air gap of at least 20mm is present directly behind the fibre cement sheet.

This classification is also valid for the following product parameters:

Panel thickness	8mm (as tested) or greater allowed
Surface texture	Smooth or embossed allowed
Product density	$1300\text{kg/m}^3 \pm 0.15\text{g/cm}^3$
Product colour/pattern	No variation allowed
Air space	20mm or greater allowed
Joints	Vertical and horizontal allowed
Joint width	Up to 10mm
Fixing	Mechanical fixings eg metal (not aluminium) nails or rivets allowed
Fixing centres	Any spacing allowed
Supporting profile	Timber or metal profile allowed
Product composition	No further variation allowed
Product construction	No further variation allowed

5. Limitations

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

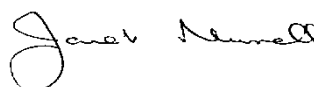
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Issue 2: Addition of joint width information on request of client. 26th March 2020, K.Williams

Issue No : 3	Re-issue Date: 22 nd June 2021
Revised By: S Deeming	Authorised By: M Dale
Reason for Revision: This document replaces Issue 2 (dated 26 th March 2021) of the same number which has been withdrawn. Additional SBI testing has been conducted and these results have been incorporated into the relevant sections of this report, with the field of application section being updated to reflect the additional evidence generated.	