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Title:

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

Notified Body No:

0833

Product Name:

"webertherm XM FM024"

Report No:

WF 417450

Issue No:

2

Prepared for:

Saint Gobain Weber Ltd,
Maulden Road,
Dickens House,
Enterprise Way,
Flitwick,
MK45 5BY

Date:

7th August 2019

1. Introduction

This classification report defines the classification assigned to “webertherm XM FM024”, a render protected external wall insulation system incorporating mineral fibre insulation, in line with the procedures given in EN 13501-1:2018.

2. Details of classified product

2.1 General

The product, “webertherm XM FM024”, a render protected external wall insulation system incorporating mineral fibre insulation, is defined as being suitable for construction applications, excluding flooring and linear pipe thermal insulation.

2.2 Product description

The product, “webertherm XM FM024”, is fully described below and in the test reports provided in support of classification listed in Clause 3.1.

General description		Render protected external wall insulation system incorporating mineral fibre insulation.
Product reference		“webertherm XM FM024”
Name of manufacturer		Saint-Gobain Weber
Thickness		200mm (stated by sponsor) 200mm (determined by Warringtonfire)
Weight per unit area		38.49kg/m^2 (determined by Warringtonfire)
Finish	Generic type	Synthetic textured finish (silicone)
	Product reference	“webersil TF”
	Name of manufacturer	Saint-Gobain Weber
	Colour reference	Any (“Carnival Red” tested)
	Number of coats	One
	Thickness	1.5mm
	Application rate	2.7kg/m²
	Application method	Mix in bucket and apply a ‘tight’ coat with a metal trowel. Finish with a thin plastic float.
	Curing process per coat	3-4 days
	Flame retardant details	**See Note 1 below**
Primer	Generic type	Acrylic primer
	Product reference	“PR310”
	Name of manufacturer	Saint-Gobain Weber
	Colour reference	“White”
	Number of coats	One
	Thickness	0.1mm
	Application rate	270g/m² (0.25 l/m²)
	Application method	Brush applied
	Curing process per coat	24 hours
	Flame retardant details	**See Note 1 below**

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Render	Generic type	Polymer modified cementitious adhesive render
	Product reference	“weberend LAC”
	Name of manufacturer	Saint-Gobain Weber
	Colour reference	“Grey, un-pigmented”
	Number of coats	One
	Thickness	3mm
	Application rate	3.25kg/m²
	Application method	Mixed with the appropriate quantity of clean potable water and applied by hand with a metal trowel
	Curing process per coat	28 days
	Flame retardant details	**See Note 1 below**
Reinforcing mesh	Generic type	Glass fibre mesh cloth
	Product reference	“weber Mesh Standard”
	Name of manufacturer	Saint-Gobain ADFORS
	Number of layers	One
	Thickness	0.52mm
	Weight per unit area	160g/m²
	Application method	Laid over the first pass of render and laid in with a steel trowel
	Flame retardant details	**See Note 1 below**
Render	Generic type	Polymer modified cementitious adhesive render
	Product reference	“weberend LAC”
	Name of manufacturer	Saint-Gobain Weber
	Colour reference	“Grey, un-pigmented”
	Number of coats	One
	Thickness	3mm
	Application rate	3.25kg/m²
	Application method	Mixed with the appropriate quantity of clean potable water and applied by hand with a metal trowel
	Curing process per coat	28 days
	Flame retardant details	**See Note 1 below**
Insulation	Generic type	Mineral fibre insulation
	Product reference	“webertherm MFD”
	Name of manufacturer	Rockwool
	Thickness	180mm
	Weight per unit area	18.9kg/m²
	Density	1st 15mm 160kg/m³ Balance 100kg/m³
	Colour reference	“Natural (brown)”
	Flame retardant details	**See Note 1 below**

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Fixings	Generic type	Screw with washer for panel substrate
	Product reference	“Self-drilling carbon tipped screw with isolating washer”
	Name of manufacturer	Ejot
Substrate	Generic type	Non flame retardant grade plywood which complied BS EN 13238: 2010
	Product reference	“Plywood”
	Name of manufacturer	Wisa
	Thickness	9mm
	Density	450kg/m³
Brief description of manufacturing process		Insulation is fixed to the plywood substrate with self-drilling screws and washers to the appropriate pattern. 3mm weberend is applied and the reinforcing mesh laid in. A further 3mm pass of weberend LAC applied and finished flat. After a minimum of three days a coat of PR310 primer is applied and left to dry. Finally the weber mineral TF is mixed with water and applied with a trowel and finished with a thin plastic float.

Note 1: 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	Saint Gobain Weber Ltd	WF 412243, 416414 (full) WF 421033, 421060 (indicative)	BS EN 13823:2010+A1:2014
Warringtonfire	Saint Gobain Weber Ltd	WF 415891	EN ISO 1716: 2018 Composite report
Warringtonfire	Saint Gobain Weber Ltd	WF 414083, 412825, 412821, 412826, 414099	EN ISO 1716: 2018
Warringtonfire	Saint Gobain Weber Ltd	WF 428235	EN 15725:2010 TS/EN 15117:2005

3.2 Test results

Test method & test number	Parameter	No. tests	Results	
			Continuous parameter - Max/Mean (m)	Compliance parameters
BS EN 13823 - “webertherm XM FM024”	$FIGRA_{0.2MJ}$	3	67.95 W/s	-
	$FIGRA_{0.4MJ}$		52.96 W/S	-
	THR_{600s}		2.42 MJ	-
	SMOGRA		4.06 m^2s^2	-
	TSP_{600s}		49.71 m^2	-
	Lateral Flame Spread to End of Specimen?		-	Compliant
	Fall of Flaming Drop/Particle?		-	Compliant
	Flaming of Fallen Particle Exceeding 10s?		-	Compliant

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EN ISO 1716	Top Coat - PCS (a) (substantial layer of non/homogeneous product)	3	2.9523 MJ/kg	-
	Primer - PCS (d) (internal non-substantial for non-homogeneous)		2.2282 MJ/m^2	-
	Render - PCS (a) (substantial layer of non/homogeneous product)		0.4860 MJ/kg	-
	Reinforcing Mesh – PCS (d) – (internal non-substantial for non-homogeneous)		1.1224 MJ/m^2	-
	Insulation – PCS (a) (substantial layer of non/homogeneous product)		0.9932 MJ/kg	-
	For the product as a whole – PCS (e)	N/a	1.1655 MJ/kg	-
BS EN 13823 "webertherm XM PM224" Finish Colour Assessment*	FIGRA $_{0.2MJ}$	3 (C.Red) 1 (S.Pearl) 1 (W.Slate)	64.61 W/s (C.Red)	-
			100.18 W/s (S.Pearl)	
			73.25 W/s (W.Slate)	
	FIGRA $_{0.4MJ}$		59.17 W/S (C.Red)	-
			100.18 W/S (S.Pearl)	
			71.91 W/s (W.Slate)	
	THR $_{600s}$		2.75 MJ (C.Red)	-
			3.57 MJ (S.Pearl)	
			2.39 MJ (W.Slate)	
	LFS		-	Compliant
	SMOGRA		9.54 m^2s^2 (C.Red)	-
			10.60 m^2s^2 (S.Pearl)	
			7.36 m^2s^2 (W.Slate)	
	TSP_{600s}		76.59 m^2 (C.Red)	-
			80.17 m^2 (S.Pearl)	
			60.01 m^2 (W.Slate)	
	Fall of Flaming Drop/Particle?		-	Compliant
	Flaming droplets lasting > 10s		-	Compliant

*** Colour –** All BS EN 13823 testing was conducted on the "webertherm XM FM024" product with the "Carnival Red" finish colour. This was selected due to it being the most organic colour within the colour range. The finish colour of the "webertherm XM FM024" product had previously been demonstrated to have no influence on fire classification via testing on the "webertherm XM PM224" product as per WF 416414, WF 421033 & WF 421060 when applied to a combustible EPS insulation. The finish type on both products, "webersil TF", is identical. Therefore the "webertherm XM FM024" product with any other finish colour within the colour range can be deemed to meet the same level of fire performance as that with the "Carnival Red" finish colour.

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 15725:2010, EN/TS 15117:2005 and EAD 040287-00-0404.

4.2 Classification

The product, “webertherm XM FM024”, a render protected external wall insulation system incorporating mineral fibre insulation, 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 applied over any substrate with a minimum density of 450kg/m^3, having a minimum thickness of 9mm and a fire performance of D-s2,d0 or better
ii) Air gap details – No air gap allowed

This classification is also valid for the following product parameters:

Finish colour	Any
Finish type	Identical type with equal or less organic content allowed
Primer type	Identical type with equal or less organic content allowed
Render type	Identical type with equal or less organic content allowed
Reinforcing Mesh type	Tested type and those with lower PCS (MJ/m^2) values allowed
Finish, Primer and Render application rate	Tested value and lower values (kg/m^2) allowed
Insulation type	Identical type with equal or less organic content allowed
Insulation thickness	Any variation allowed
Insulation density	Tested value or below allowed
Product composition	No further variation allowed
Product construction	No further variation allowed
Air gap details	No air gap allowed
Mounting and Fixing details	Mechanical fixings only allowed Supplementary "weberend LAC" or "weberend LAC Rapid" render may be used **in addition** to the mechanical fixings as described

5. Limitations

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

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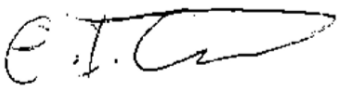

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Euan Gardner
Certification Engineer
Technical Department

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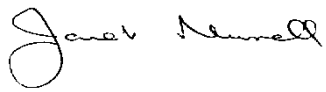

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Janet Murrell
Technical Manager
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on behalf of Warringtonfire

Issue 2: Addition of colour assessment test results and reference to EXAP. E Gardner. 12th May 2020.