

**Title:**

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

**Notified Body No:**

0833

**Product Name:**

"Webertherm XM FM018 -  
Carnival Red"

**Report No:**

WF 428391

**Issue No:**

1

**Prepared for:**

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

**Date:**

12<sup>th</sup> May 2020

## 1. Introduction

This classification report defines the classification assigned to “Webertherm XM FM018”, 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 FM018”, 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 FM018”, 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 FM018”
Name of manufacturer		Saint-Gobain Weber
Overall thickness		188mm 200mm (with fixings and substrate)
Overall weight per unit area		28.63/m <sup>2</sup> (determined by Warringtonfire.) 38.17kg/m <sup>2</sup> (with fixings and substrate)
Top coat	Generic type	Synthetic textured finish (Acrylic)
	Product reference	“weberplast TF”
	Name of manufacturer	Saint-Gobain Weber
	Colour reference	“Carnival Red”
	Number of coats	One
	Thickness	1.5mm
	Application rate	2.8kg/m <sup>2</sup>
	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		<b>See Note 1 below</b>
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/m <sup>2</sup> (0.25litres/m <sup>2</sup> )
	Application method	Brush applied
	Curing process per coat	24 hours
Flame retardant details		<b>See Note 1 below</b>

*Continued on next page*

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/m <sup>2</sup>
	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	<b>See Note 1 below</b>
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/m <sup>2</sup>
	Application method	Laid over the first pass of render and laid in with a steel trowel
	Flame retardant details	<b>See Note 1 below</b>
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/m <sup>2</sup>
	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	<b>See Note 1 below</b>
Insulation	Generic type	Mineral fibre insulation
	Product reference	"webertherm MFD"
	Name of manufacturer	Rockwool
	Thickness	180mm
	Weight per unit area	18.9kg/m <sup>2</sup>
	Density	1st 15mm 160kg/m <sup>3</sup> , balance 100kg/m <sup>3</sup>
	Colour reference	"Natural (brown)"
	Flame retardant details	<b>See Note 1 below</b>
Fixings	Generic type	Screw with washer for panel substrate
	Product reference	"Self-drilling carbon tipped screw with isolating washer"
	Name of manufacturer	Ejot

*Continued on next page*

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/m <sup>3</sup>
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 'weberplast TF' is 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 412242	BS EN 13823:2010+A1:2014
Warringtonfire	Saint Gobain Weber Ltd	WF 418697	EN ISO 11925-2:2010
Warringtonfire	Saint Gobain Weber Ltd	WF 414099, WF 427653 WF 414086, WF 427654 WF 427655	EN ISO 1716:2018

**3.2 Test results**

Test method & test number	Parameter	No. tests	Results	
			Continuous parameter - Max/Mean (m)	Compliance parameters
BS EN 13823 - Carnival Red	FIGRA <sub>0.2MJ</sub>	3	73.72 W/s	-
	FIGRA <sub>0.4MJ</sub>		68.14 W/S	-
	THR <sub>600s</sub>		2.41 MJ	-
	SMOGRA		3.47 m <sup>2</sup> s <sup>2</sup>	-
	TSP <sub>600s</sub>		49.92 m <sup>2</sup>	-
	Lateral Flame Spread to End of Specimen?		-	Compliant
	Fall of Flaming Drop/Particle?		-	Compliant
	Flaming of Fallen Particle Exceeding 10s?		-	Compliant

EN ISO 11925-2* EPS Insulation	30s exposure - surface	F <sub>s</sub>	6	-	Compliant 0 mm
		Flaming droplets/ particles		-	Compliant
	30s exposure – edge	F <sub>s</sub>		-	Compliant 0 mm
		Flaming droplets/ particles		-	Compliant
	30s exposure – edge at 90 (EPS)	F <sub>s</sub>		-	Compliant ≤ 100 mm
		Flaming droplets/ particles		-	Compliant
EN ISO 1716	"webertherm MFD" – Mineral Insulation - PCS (a)		3	0.9932 MJ/kg	-
EN ISO 1716 Plast TF Finish Colour Assessment	"Carnival Red" - PCS (a)		3	3.6664 MJ/kg	-
	"Subtle Salmon" – PCS (a)			3.3671 MJ/kg	-
	"Carrot Cake" – PCS (a)			3.2933 MJ/kg	-
	"Burnt Sienna" – PCS (a)			3.3406 MJ/kg	-
	"Silver Pearl" – PCS (a)			2.6701 MJ/kg	-
<p>* The EN ISO 11925-2 test was conducted on an identical render system and colour when applied to <b>EPS Insulation</b> instead of "webertherm MFD" mineral wool. The "webertherm MFD" Mineral Wool insulation has been tested to EN ISO 1716 and demonstrated a performance consistent with A1 criteria. The Mineral Wool can therefore be deemed to possess a superior fire performance to the combustible EPS foam on which the EN 11925-2 test has previously been conducted and therefore no further EN 11925-2 testing on the render system is deemed to be required.</p>					

#### 4.1 Reference of classification

This classification has been carried out in accordance with clause 8 of EN 13501-1:2018 and EAD 040287-00-0404.

#### 4.2 Classification

The product, "Webertherm XM FM018", a render protected external wall insulation system incorporating mineral fibre insulation, in relation to its reaction to fire behaviour is classified:

**B**

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

i.e. **B – s1 , d0**

**Reaction to fire classification: B- 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  $450\text{kg/m}^3$ , having a minimum thickness of 9mm and a fire performance of D-s2,d0 or better
- ii) Air gap details – No air gap allowed

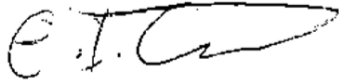
This classification is also valid for the following product parameters:

Top Coat colour	Any colour with equal or lower organic content or equal or lower PCS (MJ/kg)
Top coat type	Identical type with equal or less PCS (MJ/kg) or organic content allowed
Primer type	Identical type with equal or less organic content allowed
Reinforcing Mesh type	Tested type and those with lower PCS ( $\text{MJ/m}^2$ ) values allowed
Render type	Identical type with equal or less organic content allowed
Finish, Primer and application rate	Render Tested value and lower values ( $\text{kg/m}^2$ ) 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	No variation allowed Supplementary "weberend LAC" or "weberend LAC Rapid" render may be used <b>in addition</b> to the mechanical fixings as described

## 5. Limitations

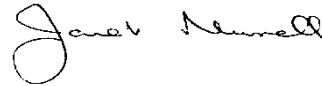
This document does not represent type approval or certification of the product.

### SIGNED



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

### APPROVED



.....  
**Janet Murrell**  
Technical Manager  
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.