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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:**

"RS5000 Series - Line 2"

**Report No:**

WF 383675

**Issue No:**

1

**Prepared for:**

Celotex  
Lady Lane Industrial Estate  
Lady Lane  
Hadleigh  
Suffolk  
IP7 6BA

**Date:**

17<sup>th</sup> August 2017



## 1. Introduction

This classification report defines the classification assigned to "RS5000 Series - Line 2", a foil faced PIR insulation family, in line with the procedures given in EN 13501-1:2007+A1: 2009.

## 2. Details of classified product

### 2.1 General

The product, "RS5000 Series - Line 2", a foil faced PIR insulation family, is defined as being suitable for construction applications, excluding flooring.

### 2.2 Product description

The product, "RS5000 Series - Line 2", a foil faced PIR insulation family, is fully described below and in the test reports provided in support of classification listed in Clause 3.1.

General description		Foil faced PIR insulation
Name of manufacturer		Saint-Gobain Construction Products UK Limited – Trading as Celotex
Trade names		"RS5000 Series - Line 2" (last 3 digits of product reference denotes foam thickness in mm eg. "RS5100 – Line 2" denotes foam thickness of 100mm)
Thickness of composite		100mm to 160mm
Weight per unit area of composite		3.30 kg/m <sup>2</sup> to 5.29kg/m <sup>2</sup>
Aluminium foil	Product reference	"FSS 38-172"
	Generic type	Aluminium foil (embossed)
	Name of manufacturer	<b>See Note 1 below</b>
	Weight per unit area	<b>See Note 1 below</b>
	Thickness	<b>See Note 1 below</b>
	Colour	"Silver"
	Flame retardant details	This component is inherently flame retardant
Foam	Product reference	"HP400E 28-038"
	Generic type	PIR insulation foam core
	Name of manufacturer	Saint-Gobain Construction Products UK Limited – trading as Celotex
	Thickness	100mm to 160mm
	Density	32 kg/m <sup>3</sup>
	Flame retardant details	<b>See Note 2 below</b>

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Aluminium foil	Product reference	"FSS 38-172"
	Generic type	Aluminium foil (embossed)
	Name of manufacturer	<b>See Note 1 below</b>
	Weight per unit area	<b>See Note 1 below</b>
	Thickness	<b>See Note 1 below</b>
	Colour	"Silver"
	Flame retardant details	This component is inherently flame retardant
Joint Details		Long wing: one horizontal at 500mm of specimen height, vertical 200mm in from corner line - Short wing one horizontal joint at 500mm height. As per EN 13823 5.2.2
Substrate	Product reference	"Promat – Brandschultzbauplatten; Promatect-H"
	Generic type	Calcium Silicate based board
	Name of manufacturer	Promat
	Thickness	12mm
	Density	870kg/m <sup>3</sup>
	Flame retardant details	The substrate is inherently flame retardant
Brief description of manufacturing process		Facing is auto adhesively bonded to foam during the manufacturing process.

Note 1: 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.

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
Exova warringtonfire	Celotex	WF 381760	EN ISO 11925-2
Exova warringtonfire	Celotex	WF 381753, 381758	EN 13823
Exova warringtonfire	Celotex	WF 383674	EN/TS 15117



3.2 Test results

Test method & test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance parameters
EN ISO 11925-2 (30s exposure - surface)	F <sub>s</sub>	6	Nil	Compliant
	Flaming droplets/ particles		None	Compliant
EN ISO 11925-2 (30s exposure – edge)	F <sub>s</sub>	6	41.7	Compliant
	Flaming droplets/ particles		None	Compliant
EN ISO 11925-2 (30s exposure – edge turned at 90 degrees)	F <sub>s</sub>	6	91.7	Compliant
	Flaming droplets/ particles		None	Compliant
EN 13823	FIGRA <sub>0.2MJ</sub>	100mm product	222.39	Compliant
		160mm product	320.07	
	FIGRA <sub>0.4MJ</sub>	100mm product	193.26	Compliant
		160mm product	292.81	
	THR <sub>600s</sub>	100mm product	5.09	Compliant
		160mm product	5.96	
	LFS	100mm product	None	Compliant
		160mm product	None	
	SMOGRA	100mm product	49.50	Compliant
		160mm product	83.26	
	TSP <sub>600s</sub>	100mm product	69.93	Compliant
		160mm product	90.71	

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, “RS5000 Series - Line 2”, a foil faced PIR insulation family, in relation to its reaction to fire behaviour is classified:

D

The additional classification in relation to smoke production is:

s2

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	
D	-	s	2	,	d	0

i.e. D – s2 , d0

**Reaction to fire classification: D – s2, d0**

4.3 Field of application

This classification is valid for the following end use applications:

- i) Construction applications used over any substrate with a density equal to or greater than 870kg/m<sup>3</sup>, having a minimum thickness of 12mm and a fire performance of A2 or better (excluding paper faced gypsum plasterboard).

This classification is also valid for the following product parameters:

Product thickness	100mm to 160mm
Insulation thickness	100mm to 160mm
Product weight per unit area	3.30 kg/m <sup>2</sup> to 5.29kg/m <sup>2</sup>
Insulation density	Tested density ± 15%
Thickness and weight per unit area of facings	For the tested thickness only. The test result obtained for Euroclass A1 and A2 facings will also be valid for thicker facings of the same type.
Product composition	No variation allowed
Product construction	No variation allowed



## 5. Limitations

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

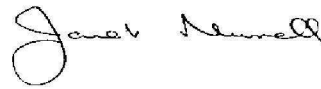
### SIGNED



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**Jennifer Lucas-Cox**  
Certification Engineer  
Technical Department

### APPROVED



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**Janet Murrell**  
Technical Manager  
Technical Department  
on behalf of **Exova warringtonfire**

