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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:**

"Flotex Sheet"

**Report No:**

WF 399550

**Issue No:**

1

**Prepared for:**

Forbo Flooring UK Limited  
High Holborn Road  
Ripley  
Derbyshire  
DE5 3NT

**Date:**

8<sup>th</sup> May 2018



## 1. Introduction

This classification report defines the classification assigned to “Flotex Sheet”, a flocked floor covering, in accordance with the procedures given in EN 13501-1:2007+A1:2009.

## 2. Details of classified product

### 2.1 General

The product, “Flotex Sheet”, a flocked floor covering is defined as a textile floor covering tile as defined in the EN 14041, suitable for flooring applications.

### 2.2 Product description

The product, “Flotex Sheet”, a flocked floor covering, is fully described below and in the test reports provided in support of classification listed in Clause 3.1.

General description		Flocked floor covering which was tested loose laid over an fibre cement board substrate	
Carpet tile	Product reference of carpet tile	“Flotex Sheet”	
	Name of manufacturer of carpet tile	Forbo Flooring UK Limited	
	Overall thickness of carpet tile	4.3mm (stated by sponsor) 4.33mm (determined by <b>Exova Warringtonfire</b> )	
	Overall weight per unit area of carpet tile	1815g/m <sup>2</sup> (stated by sponsor) 1795.1g/m <sup>2</sup> (determined by <b>Exova Warringtonfire</b> )	
	Colour reference of carpet tile	Any colour / pattern	
	Pattern reference of carpet tile	“8977”	
	Pile	Product reference	“RA 110”
		Generic type	Polyamide 6,6
		Name of manufacturer	<b>See Note 1 Below</b>
		Pile height above the backing	2mm
		Weight per unit area	250g/m <sup>2</sup>
		Flame retardant details	<b>See Note 2 Below</b>
	Adhesive layer	Generic type	PVC plastisol compound
		Product reference	“RWPO4 Adhesive”
		Detailed description	Adhesive layer containing antimicrobial and flame retardant additives
		Name of manufacturer	Forbo Flooring UK Limited
		Thickness	0.25mm
Weight per unit area		340g/m <sup>2</sup>	
Trade name of flame retardant		“Pre-Mixed Ingredients”	
Generic type of flame retardant		Antimony trioxide/zinc borate	
Amount of flame retardant	11g/m <sup>2</sup>		

Continued on next page

Carpet tile cont...	Primary backing	Product reference	"RA 147 RA 152"
		Generic type	Reinforced fibreglass non woven
		Name of manufacturer	<b>See Note 1 Below</b>
		Thickness	0.55mm
		Weight per unit area	90g/m <sup>2</sup>
		Flame retardant details	<b>See Note 2 Below</b>
	Backing	Product reference	"RWP15"
		Generic type	Waterproof vinyl backing
		Name of manufacturer	Forbo Flooring UK Limited
		Thickness	2.10mm
		Weight per unit area	1150g/m <sup>2</sup>
Flame retardant details		<b>See Note 2 Below</b>	
Substrate	Generic type	Fibre cement board or Wood based particle board	
	Thickness	8mm Fibre cement board or 20mm thick Wood based particle board	
	Density	Fibre cement board (1800kg/m <sup>3</sup> ) or Wood based particle board (680kg/m <sup>3</sup> )	
Brief description of manufacturing process utilised in the production of the carpet tile		The primary backing is coated with a cushion backing and is then inverted and coated with the adhesive layer. The pile is then electrostatically flocked into the adhesive layer. After curing the product is printed and cut to final roll lengths	

**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 of the test has confirmed that no flame retardant additives were utilised in the production of the product

### 3. Test reports & test results in support of classification

#### 3.1 Test reports

Name of Laboratory	Name of sponsor	Test report Nos.	Test method
Exova Warringtonfire	Forbo Flooring UK Limited	WF 350329	EN ISO 9239-1
Exova Warringtonfire	Forbo Flooring UK Limited	WF 350330	EN ISO 11925-2
Cret	Forbo Flooring	RL 2017/815-3	EN ISO 9239-1
Cret	Forbo Flooring	RL 2017/815-4	EN ISO 11925-2
Exova Warringtonfire	Forbo Flooring UK Limited	WF 350566	EN 13501
Exova Warringtonfire	Forbo Flooring UK Limited	WF 399549	EN/TS 15117

#### 3.2 Test results

Test method & test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance parameters
EN ISO 9239-1	Critical Heat Flux (kW/m <sup>2</sup> )  Smoke (% x min)	3, 3	8.4 kW/m <sup>2</sup> (Fibre Cement Board substrate)  10.1 kW/m <sup>2</sup> (Wood based particle board substrate)  114.2% (Fibre Cement Board substrate)  153.4% (Wood based particle board substrate)	Compliant
EN ISO 11925-2 15 s surface exposure	Flame spread (mm)	6, 6	20 mm (Fibre Cement Board substrate)  Nil (Wood based particle board substrate)	Compliant

#### 4. Classification and field of application

##### 4.1 Reference of classification

This classification has been carried out in accordance with clause 12 of EN 13501-1:2007+A1:2009

##### 4.2 Classification

The product, "Flotex Sheet", a flocked floor covering, in relation to its reaction to fire behaviour is classified:

**Reaction to fire classification: B<sub>fl</sub>-s1**

##### 4.3 Field of application

This classification is valid for the following end use applications:

- i) Flooring applications, used over any substrate of class C<sub>FL</sub>-s1 or better, with a density of 680 kg/m<sup>3</sup> or higher.
- ii) Loose laid or with adhesive

This classification is also valid for the following product parameters:

Product thickness	No variation allowed
Product mass per unit area	No variation allowed
Product composition	No variation allowed
Colour and design	Any colour and design, unless different colour and design change the composition, thickness or mass per unit area

##### SIGNED

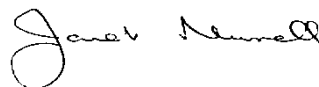


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##### Matthew Dale

Senior Certification Engineer

##### APPROVED



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##### Janet Murrell

Technical Manager  
on behalf of **Exova Warringtonfire**

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