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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:**

"Circulate"

**Report No:**

314644

**Issue No:**

1

**Prepared for:**

Forbo Flooring UK Limited  
Unit 92, Seedlee Road  
Walton Summit Centre  
Bamber Bridge  
Preston  
Lancashire  
PR7 8AE

**Date:**

5<sup>th</sup> January 2012

## 1. Introduction

This classification report defines the classification assigned to "Circulate", a loop pile carpet tile product, in accordance with the procedures given in EN 13501-1:2007+A1: 2009.

## 2. Details of classified product

### 2.1 General

The product, "Circulate", a loop pile carpet tile product, is defined as being suitable for floor covering applications.

### 2.2 Product description

The product, "Circulate", a loop pile carpet tile product, is fully described below and in the test reports provided in support of classification listed in Clause 3.1.

General description		Loop pile carpet tile which was tested loose laid over a fibre cement board substrate.
Carpet tile	Product reference of carpet tile	"Circulate"
	Name of manufacturer of carpet tile	Forbo Flooring UK Ltd
	Overall thickness of carpet tile	6.2mm (stated by sponsor) 6.75mm (determined by Exova Warringtonfire)
	Overall weight per unit area of carpet tile	4015g/m <sup>2</sup> (stated by sponsor) 3998g/m <sup>2</sup> (determined by Exova Warringtonfire)
	Pile	Product reference
		"Solution Dyed"
		Generic type
		Polyamide nylon
		Name of manufacturer
		Aquafil
	Primary backing	Pile height above the backing
		3.5mm
		Weight per unit area
		520g/m <sup>2</sup>
		Flame retardant details
		See Note 1 Below
	Backing	Product reference
		"SM100"
		Generic type
		Spunbond, PET/PA based
		Name of manufacturer
		Colbond
	Back coating	Thickness
		0.1mm
		Weight per unit area
		100g/m <sup>2</sup>
		Flame retardant details
		See Note 1 Below
	Back coating	Product reference
		"LC6715"
		Generic type
		Latex
		Name of manufacturer
		ILC
	Back coating	Thickness
		0.2mm
		Weight per unit area
		800g/m <sup>2</sup>
		Flame retardant details
		See Note 1 Below
	Back coating	Product reference
		"Bitumix"
		Generic type
		Bitumen/Limestone blend
		Name of manufacturer
		Shell/Longcliffe
	Back coating	Thickness
		2.2mm
		Weight per unit area
		2500g/m <sup>2</sup>
		Flame retardant details
		See Note 1 Below

Continued on next page

Carpet cont...	Secondary backing	Product reference	"Secondary Backing"
		Generic type	Woven
		Name of supplier	Johns Manville
		Thickness	0.2mm
		Density	95g/m²
		Flame retardant details	See Note 2 Below
Substrate	Trade name	"NT D4 604"	
	Generic description	Fibre cement board	
	Supplier	Scheerders van de Kerkhove (SVK)	
	Overall thickness	6mm	
	Overall density	1900 ± 200kg/m³	
Brief description of manufacturing process utilised in the production of the carpet tile		The sponsor of the test was unwilling to provide this information	

Note 1: 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 reports/extended application report Nos.	Test method / extended application rules & date
Exova warringtonfire	Forbo Flooring UK Limited	WF 313347	EN ISO 11925-2
Exova warringtonfire	Forbo Flooring UK Limited	WF 313348	EN ISO 9239-1

#### 3.2 Test results

Test method & test number	Parameter	No. tests	Results	
			Continuous parameter - mean (m)	Compliance with parameters
EN ISO 9239-1	Critical flux	3	≥11.3	Compliant
	Smoke		16.26%	Compliant
EN ISO 11925-2 (15s exposure – surface of decorative face)	F <sub>s</sub>	6	20	Compliant
	Flaming droplets/ particles		None	Compliant
EN ISO 11925-2 (15s exposure – edge of decorative face)	F <sub>s</sub>	6	30	Compliant
	Flaming droplets/ particles		None	Compliant

#### 4. Classification and field of application

##### 4.1 Reference of classification

This classification has been carried out in accordance with clause 9 of EN 13501-1:2007+A1:2009.

##### 4.2 Classification

The product, "Circulate", a loop pile carpet tile product, in relation to its reaction to fire behaviour is classified:

**B<sub>FL</sub>**

The additional classification in relation to smoke production is:

**s1**

The format of the reaction to fire classification for floorings is:

Fire Behaviour		Smoke Production	
<b>B<sub>FL</sub></b>	-	<b>s</b>	<b>1</b>

i.e. **B<sub>FL</sub> – s1**

**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 with a density equal to or greater than 1700Kg/m<sup>3</sup>, having a minimum thickness of 6mm and a fire performance of A2<sub>FL</sub> or better.
- ii) Installed with or without adhesive

This classification is also valid for the following product parameters:

Floorcovering thickness	No variation allowed
Floorcovering weight per unit area	No variation allowed
Colour / pattern	Any variation allowed
Floorcovering composition	No variation allowed
Floorcovering construction	No variation allowed

#### 5. Limitations

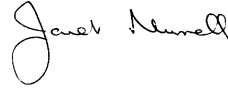
This document does not represent type approval or certification of the product

**SIGNED**



.....  
**Matthew Dale**  
Certification Engineer

**APPROVED**



.....  
**Janet Murrell**  
Technical Manager  
For and on behalf of:  
**Exova Warringtonfire**

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