



# Confidential Report

Our Ref: 2504339A/10/11





# BCTC

CARPET TECHNICAL CENTRE

BTTG Testing & Certification Ltd.  
Wira House  
West Park Ring Road  
Leeds, LS16 6QL  
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10 November 2011

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Client: Forbo Flooring UK  
High Holborn Road  
Ripley  
Derbyshire  
DE5 3NT

Job Title: **Classification of One Sample of Flotex Tiles**

Clients Order Ref: 4500492333

Date of Receipt: 20 October 2011

Reference: **Flotex Tile**  
Description of Sample: Flotex Tile  
PVC Type Backed  
Measurements: 50cm x 50cm

Work Requested: BCTC were requested to classify the sample of flotex tiles supplied in accordance with BS EN 1307.





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**Calculation of Measured Surface Pile Density**

The sample was conditioned and tested at  $20 \pm 2^\circ\text{C}$  and  $65 \pm 4\%$  r.h.

Four specimens from the sample were tested in accordance with ISO 1765:1986 (2005), BS ISO 1766:1999 (2005) and BS ISO 8543: Clauses 6, 8 and 9:1998 (2005). The pile was sheared from each specimen using a bandknife.

	<u>Total carpet thickness</u> (mm)	<u>Shorn thickness</u> (mm)	<u>Surface pile thickness</u> (mm)
	5.5	4.1	1.4
	5.5	4.0	1.5
	5.5	4.1	1.4
	<u>5.4</u>	<u>4.1</u>	<u>1.3</u>
Mean:	5.5	4.1	1.4

	<u>Total mass per</u> <u>unit area</u> (g/m <sup>2</sup> )	<u>Mass of pile per unit</u> <u>area above substrate</u> (g/m <sup>2</sup> )
	4221	186
	4309	188
	4342	191
	<u>4318</u>	<u>191</u>
Mean:	4298	189
C of V%:	1.2	1.3
95% confidence limits	$\pm 2.0\%$	$\pm 2.1\%$

Therefore mean surface pile density (g/cm<sup>3</sup>) = 0.135



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### Lisson Tretrad Test

Two specimens from the sample were tested in accordance with BS EN 1963:Test A: 2007 for 1700 double traverses.

The absolute weight loss of the stressed specimen area  $M_v$ , is quoted together with the calculated  $I_{tr}$  value.

<u>Absolute weight loss (<math>M_v</math>) (<math>g/m^2</math>)</u>	<u><math>I_{tr}</math> value</u>
0.0	$\geq 3.0$

### Note

For flocked carpets there is no requirement for classes 21 and 22. For classes 23/32 and 33,  $I_{tr}$  is assigned the value  $\geq 3.0$  if the mass loss ( $M_v$ ) is  $< 35g/m^2$ .

In addition, the floor covering also has to meet the following:-

Class 33:	Mass of pile per unit area above substrate ( $g/m^2$ )	$\geq 165$
Class 32:	Mass of pile per unit area above substrate ( $g/m^2$ )	$\geq 150$
Class 23:	Mass of pile per unit area above substrate ( $g/m^2$ )	$\geq 150$





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**Assessment of the Change in Surface Structure and Colour of Textile Floor Coverings - Hexapod Test**

Two specimens from the sample were fatigued, without underlay, in a Hexapod Tumbler Tester, one to 4,000 revs. and the other specimen to 12,000 revs, in accordance with BS ISO 10361: Method B:2000. The specimens were vacuumed at intervals of 2,000 revs and before grading using a commercial upright vacuum cleaner.

Each specimen was assessed for change in appearance in accordance with BS EN 1471:1997 on the following scale.

- 5 No change
- 4 Slight change
- 3 Moderate change
- 2 Considerable change
- 1 Severe change

Colour correction: in cases where the colour change was assessed as grade 2 or less, one half grade was added to the overall appearance change.

Colour was assessed using large size standard grey scales.

<u>No. of Revolutions</u>	<u>Overall change in surface appearance</u>	<u>Maximum colour change</u>	<u>Overall change after colour correction</u>	<u>Dominant factor</u>
4,000	4.5	4	4.5	Colour
	4.5	4	4.5	
	4.5	4	4.5	
	4.5	4	4.5	
median :	4.5	4	4.5	
12,000	4.0	3-4	4.0	Colour
	4.0	3-4	4.0	
	4.0	3-4	4.0	
	4.0	3-4	4.0	
median :	4.0	3-4	4.0	



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**Classification of Pile Carpet According to BS EN 1307:2008**

**1. Style of Carpet**

**Type 1**

**2. Wear**

$$I_{TR} = 0.19 \sqrt{M_{AP}} \times \left( \frac{100 - M_{rv}}{100} \right)$$

3.0

where,

$M_{AP}$  = mass of pile per unit area above substrate

$M_{rv}$  = relative fibre loss in percentage

Additional Requirements

Surface Pile Mass (g/m<sup>2</sup>) = 189

Wear Class:

Class 33

**3. Appearance Classification (Hexapod)**

Change of appearance at 4,000 revs.

4.5

Change of appearance at 12,000 revs.

4.0

Appearance Class:

Class 33

**4. Luxury Rating (Table 9, Option 1)**

Surface Pile Mass (g/m<sup>2</sup>) = 189

**Luxury Rating Class:**

**LC1**

**OVERALL CLASSIFICATION**

**Class 33**

**Use Intensity: Class 33 - Heavy Commercial use**





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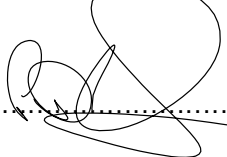
Forbo Flooring UK

**Note**

1. This report does not attempt to verify that any of the Identification requirements as given in Table 3 of the standard, and that may be declared by the producer, are correct.
2. In order to fulfil the requirements of BS EN 1307 the sample should also satisfy the criteria for the properties given in Table 4 of the standard, when tested by the stated methods.

An estimation of uncertainty of measurement has not been taken into account when making a judgement to any pass/fail criteria.

Reported by:  ..... M Reed, Laboratory Technician

Countersigned by:  ..... P Doherty, Operational Head

Enquiries concerning this report should be addressed to Customer Services.



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