

**UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND
CERTIFICATE OF TYPE APPROVAL**

(EC Certificate of Type Examination-96/98/EC Directive Module B)

Certificate Number: 164.117/1121/WCL MED0364TE

Applicant:- **Forbo Flooring UK Limited**

Manufacturer:- Forbo Flooring UK Limited

Address:- **High Holborn Road, Ripley,
Derbyshire, DE5 3NT. UK**

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Derbyshire, DE5 3NT. UK

This is to certify that the applicant has submitted details of a Floor covering with Low flame-spread characteristics known and designated as:-


"Flotex FR"

having the technical specification given in the schedule of equipment on this certificate which has been tested and complies with the recommended criteria given in the following methods, published by the International Maritime Organisation, and which are contained in the relevant parts of the International Code for Application of Fire Test Procedures (FTP Code) namely:-

- IMO Resolution MSC307 (88).Annex 1 Part 5
- IMO Resolution MSC307 (88).Annex 1 Part 2
- MSC/Circ.1120, 2 June 2004

This certificate is issued on behalf of the Maritime and Coastguard Agency (MCA). The system complies with the relevant international testing standards under which legislation (The Merchant Shipping Marine Equipment) Regulations 1999 and also the Marine Equipment Directive 96/98 amended by Directive 98/95, Directive 2001/53 and Directive 2002/75 the certificate is issued.

The manufacturer is allowed to affix the U.S. Coast Guard approval number 164.117/1121/WCL MED0364TE as allowed by the "Agreement between the European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment" signed February 27th, 2004.



P Duggan
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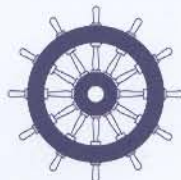
Date of Issue 15th March 2013
This certificate is valid until 14th March 2018

WCL EC Distinguishing No. 1121

**This certificate is not valid for equipment, the design or manufacture of which,
has been varied or modified from the specimens tested.**



Maritime and Coastguard Agency



This certificate does not entitle the use of the Mark of Conformity, which requires an additional module, either D, E or F.

Under the terms of the Merchant Shipping (Marine Equipment Regulations 1991) Warrington Certification Ltd. has been notified to the European Commission by the Maritime and Coastguard Agency as a body authorised to conduct Type Examinations under the provisions of the European Council Directive 96/98/EC on Marine Equipment and issue Certificates of Type Approval.

Certificate of Type Approval Schedule of Equipment

The applicant declared that the following comprises an accurate description of the system type to which this certificate applies.

General description		Flocked floorcovering adhered to a steel substrate		
Overall weight per unit area		24.98kg/m ² (determined by Exova Warringtonfire)		
Overall thickness		5.71mm (determined by Exova Warringtonfire)		
Carpet	General description		Flocked floorcovering	
	Product reference of carpet		"Flotex FR"	
	Name of manufacturer of carpet		Forbo Flooring UK Ltd	
	Overall thickness of carpet		2.8mm	
	Overall weight per unit area of carpet		1235g/m ²	
	Pile	Product reference		"RA110"
		Generic type		Nylon 6.6
		Name of manufacturer		See Note 3 below
		Pile height above the backing		2mm
		Weight per unit area		250g/m ²
		Flame retardant details		See Note 1 below
	Primary backing	Product reference		"RA153"
		Generic type		Scrim reinforced fibreglass nonwoven
		Name of manufacturer		See Note 3 below
		Thickness		0.55mm
		Weight per unit area		85g/m ²
		Flame retardant details		See Note 1 Below
	Flock adhesive	Product reference		Acrylic Plastisol (23448)"
		Generic type		Acrylic plastisol compound
		Name of manufacturer		See Note 3 below
		Thickness		0.25mm
		Application rate		300g/m ²
		Trade name of flame retardant		See Note 2 below
		Generic type of flame retardant		See Note 3 below
		Amount of flame retardant		See Note 2 below
	Back coating	Product reference		"RWP15"
		Generic type		PVC plastisol
		Name of manufacturer		Forbo Flooring UK Ltd
		Thickness		1mm
		Weight per unit area		600g/m ²
		Generic type of flame retardant		See Note 4 below
	Adhesive	Product reference		"Styccobond F44"
Generic type		Acrylic based adhesive		
Name of manufacturer		F Ball & Co. Ltd.		
Application rate		200g/m ²		
Application method		'V' notched trowel		
Flame retardant details		See Note 1 below		
Substrate	Generic type		Steel	
	Thickness		3mm	
	Density		23.56kg/m ²	
Brief description of manufacturing process of the carpet		The back coating is applied to the fibreglass nonwoven. After gelling the material is inverted and the flock adhesive is applied. The pile is then electrostatically flocked into the wet adhesive. After curing the product is printed.		

Note 1. The manufacturer of the test has confirmed that no flame retardant additives were utilised in the production of the component.

Note 2. The sponsor of the test was unable to provide this information.

Note 3. 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 4. The sponsor of the test was unwilling to provide this information.

The under noted documents have been approved for compliance with the relevant requirements of International Conventions and European Union Legislation for the EC Type examination of Marine Equipment for use on Ships Registered in the European Economic Area.

Approved Documents

Test Reports

- (1) WF No. 323912 (dated 23/11/12), and WF No. 325783 (dated 11/03/13). Surface Flammability test to Part 5, Annex 1 of the Fire Test Procedures Code, Resolution MSC307 (88).
- (2) WF No. 323913 (dated 1/3/11), and WF No. 325782 (dated 11/03/13). Smoke and Toxicity test to Part 2, Annex 1 of the Fire Test Procedures Code, Resolution MSC307 (88).

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