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**Classification of reaction
to fire performance in
accordance with EN
13501-1: 2007 +A1: 2009
on Superfoil SFNC**

Prepared for:

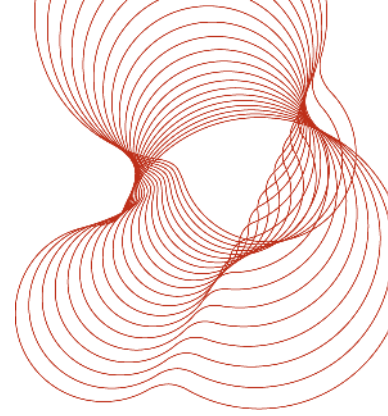
Boulder Developments Ltd
Black Horse Farm
Main Street
Norwell
Nottinghamshire
NG23 6JN, UK

15 July 2013

Test report number 283527
Issue 1



0578



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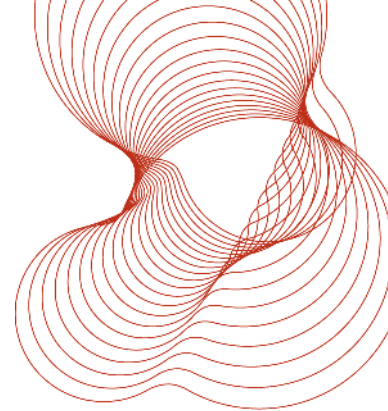
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1 Introduction

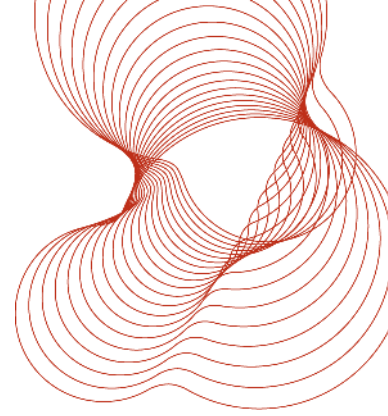
This classification report defines the classification assigned to 'Superfoil SFNC' in accordance with the procedures given in EN 13501-1:2007+A1: 2009¹

BRE Global

CLASSIFICATION OF REACTION TO FIRE IN ACCORDANCE WITH EN 13501-1: 2007+A1: 2009

Sponsor:	Boulder Developments Ltd., Black Horse Farm, Main Street, Norwell, Nottinghamshire, NG23 6JN, UK.
Prepared for:	Boulder Developments Ltd., Black Horse Farm, Main Street, Norwell, Nottinghamshire, NG23 6JN, UK.
Place of Manufacture:	Room 602, Unit 4, No 2 Buildings, South Rongtai District, No 100 Hikou Road, Jinan, China.
Prepared by:	BRE Global Ltd., Bucknalls Lane, Garston, Watford, WD25 9XX, England.
Product name:	Superfoil SFNC.
Notified body number:	1576.
Classification report No.:	283527
Issue number:	1.
Date of issue:	15 July 2013.

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2 Details of classified product

2.1 General

The product, 'Superfoil SFNC', is defined by the test sponsor as a glass fibre blanket in accordance with EN 13162².

2.2 Product description

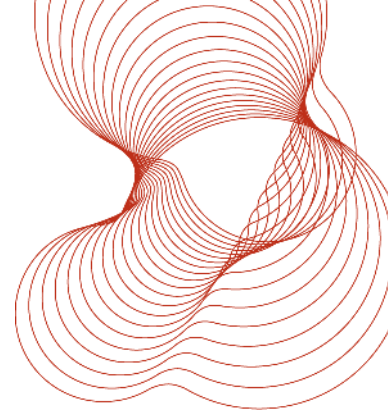
The product, 'Superfoil SFNC', is described in section 2.2.2.

2.2.1 Traceability

The test samples were supplied by the test sponsor. BRE Global was not involved in the sampling process and therefore cannot comment upon the relationship between the samples supplied for test and the products supplied to market.

2.2.2 Sample details

Name and address of test Sponsor	Boulder Developments Ltd., Black Horse Farm, Main Street, Norwell, Nottinghamshire, NG23 6JN, UK.
Place of manufacture of product	Room 602, Unit 4, No 2 Buildings, South Rongtai District, No 100 Hikou Road, Jinan, China.
Sample	
Description of specimens (as received)	Two insulation blankets, approximately 600 mm by 600mm by 20 mm-thick, comprising: <ul style="list-style-type: none"> • A layer comprising foil/white fibre glass scrim/ white plastic sheet (See Note 2). • Two white glass fibre mats, each approximately 10 mm-thick. • A layer comprising foil/ white fibre glass scrim / white plastic sheet (See Note 2).
Description of specimens (Test sponsor's declaration)	SuperFoil SFNC.
Product/component tested	SuperFoil SFNC.
Sponsor's specimen ID (Item codes)	SFNC.
Type of product / component	Insulation blanket
Colour	Mineral fibre core: White. Foil: Silver. Fibre glass scrim: White.
Nominal thickness of product	20 mm.
Nominal thickness of components	Mineral fibre core: 20.0 mm. Foil: 15 µm. Fibre glass scrim: See Note 1.
Measured thickness	Mineral fibre core: 20 mm. Foil/scrim composite layer: 0.15 mm.
Nominal density	130 kg/m ³ .
Nominal mass per unit area of product	2.7595 kg/m ² .



Nominal mass per unit area of components	Mineral fibre core: 2.566 kg/m ² . Foil: See 40.5 g/m ² . Fibre glass scrim: 58 g/m ² . Foil/scrim composite layer: 98.5 g/m ² .
Measured mass per unit area/density	Mineral fibre core: 2.10 kg/m ² (20 mm-thick)/105.2 kg/m ³ . Foil/scrim composite layer: 95.6 g/m ² (0.15 mm-thick).

Note 1: This information was not supplied by the test sponsor.

Note 2: The plastic component was subsequently removed from the product's construction.

Reports & results in support of this classification

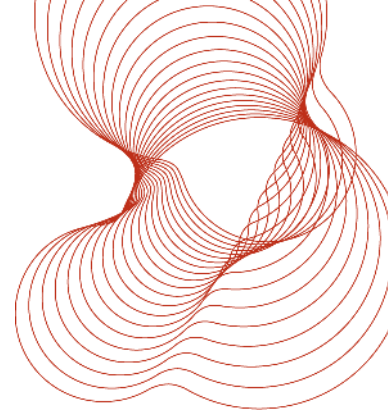
2.3 Reports

Name of Laboratory	Name of sponsor	Test reports Nos.	Test method/field of application rules
BRE Global	Boulder Developments Ltd.	283526 Revision 1	EN ISO 1716: 2010 ³
BRE Global	Boulder Developments Ltd.	282368	EN ISO 1182: 2010 ⁴

2.4 Results

Test method & test number	Parameter	No. test runs	Results	
			Continuous parameter - mean (m)	Compliance with parameters (Class A1)
EN ISO 1182: 2010 Fibre glass blanket (BREG report 282368)	ΔT	5	20.2 °C	Compliant
	Δm		1.34 %	Compliant
	t_f		0 s	Compliant
EN ISO 1716: 2010 Individual components (BREG report 283526 Revision 1)	Q_{PCS} (Foil)	3 per component	0.00 MJ/kg	Compliant
	Q_{PCSs} (Foil)		0.00 MJ/m ²	Compliant
	Q_{PCS} (Scrim)		0.22 MJ/kg	Compliant
	Q_{PCSs} (Scrim)		0.01 MJ/m ²	Compliant
	Q_{PCS} (Glass fibre core)		0.26 MJ/kg	Compliant
	Q_{PCSs} (Glass fibre core)		0.67 MJ/m ²	Compliant
EN ISO 1716: 2010 External non-substantial component (BREG report 283526 Revision 1)	Q_{PCSex}	By calculation	0.13 MJ/kg	Compliant
	Q_{PCSsex}		0.01 MJ/m ²	Compliant
EN ISO 1716: 2010 Substantial component (BREG report 283526 Revision 1)	$Q_{PCScore}$	By calculation	0.26 MJ/kg	Compliant
	$Q_{PCSscore}$		0.67 MJ/m ²	Compliant
EN ISO 1716: 2010 Whole product (BREG report 283526 Revision 1)	Q_{PCS}	By calculation	0.25 MJ/kg	Compliant
	Q_{PCSs}		0.70 MJ/m ²	Compliant

(-) Not applicable



3 Classification and field of application

3.1 Reference of classification

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

3.2 Classification

The product, 'Superfoil SFNC', in relation to reaction to fire behaviour is classified:

A1

The additional classification in relation to smoke production is:

-

The additional classification in relation to flaming droplets / particles is:

-

The format of the reaction to fire classification for construction products excluding floorings and linear pipe thermal insulation products is:

Fire Behaviour		Smoke Production				Flaming Droplets	
A1	-	s	-	,	d	-	

i.e. **A1**

Reaction to fire classification: A1

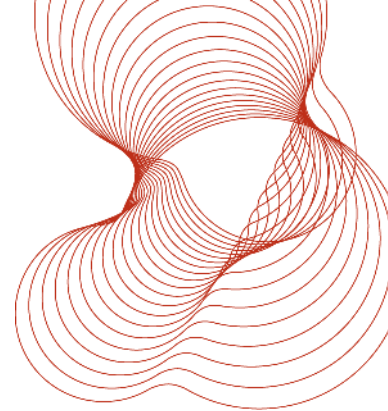
3.3 Field of application

This classification is valid for the following product and mounting and fixing parameters:

Colour	As Table A.1. No variation in colour allowed.
Composition	As Table A.1. No variation in composition or build up allowed.
Binder	Valid for organic contents \leq that tested, for the same type of binder.
Type of facing	As Table A.1. For the tested type only.
Thickness/area weight of facings	Valid for thicknesses and mass per unit areas \leq that tested, where the ratio between the components remains constant.

This classification is valid for the following end -use applications:

- i. Thermal insulation.



4 Limitations

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

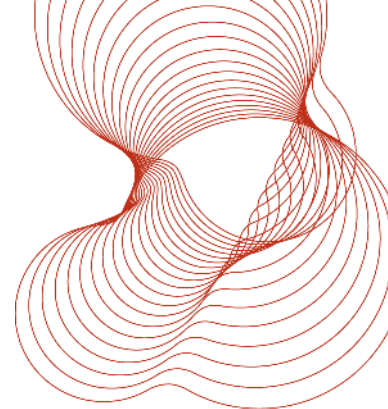
The classification assigned to the product in this report is appropriate to a declaration of conformity by the manufacturer within the context of system 3 attestation of conformity and CE marking under the Construction Products Directive.

The manufacturer has made a declaration, which is held on file. This confirms that the products design requires no specific processes, procedures or stages (e.g. no addition of flame-retardants, limitation of organic content, or addition of fillers) that are aimed at enhancing the fire performance in order to obtain the classification achieved. As a consequence the manufacturer has concluded that system 3 attestation is appropriate.

The test laboratory has, therefore, played no part in sampling the product for the test, although it holds appropriate references, supplied by the manufacturer, to provide for traceability of the samples.

5 References

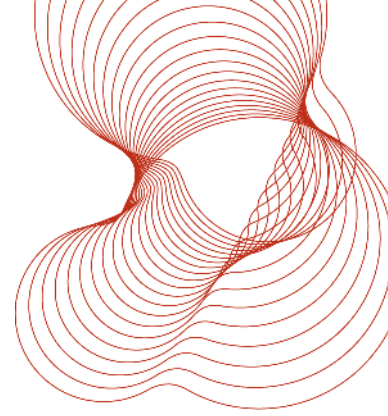
1. EN 13501-1: 2007+A1: 2009. Fire classification of construction products and building elements. Part 1: Classification using data from reaction to fire tests. CEN, Avenue Marnix 17, B-1000 Brussels. 2009.
2. EN 13162. Thermal insulation products for buildings - Factory made mineral wool (MW) products - Specification. CEN, Avenue Marnix 17, B-1000 Brussels. 2012.
3. BS EN ISO 1716: 2010. Reaction to fire tests for building products – Determination of the gross heat of combustion (calorific value) (ISO 1716:2010). CEN, Avenue Marnix 17, B-1000 Brussels. 2010.
4. BS EN ISO 1182: 2010. Reaction to fire tests for products – Non-combustibility test (ISO 1182:2010). CEN, Avenue Marnix 17, B-1000 Brussels. 2010.



Appendix A

Table A.1: Test Sponsor's product description

Company: Boulder Developments Ltd	
Parameter	Details
Trade name	SuperFoil SFNC
General description	
Name and address of manufacturer of product	Boulder Developments Ltd, Black Horse Farm, Main Street, Norwell, Notts., NG23 6JN
Place of manufacture	Room 602, Unit 4, No 2 Buildings, South Rongtai District, No 100 Hikou Road, Jinan, China
Product reference/number	SFNC
Thickness of product	20 mm
Density of matt core	130 kg/m ³
Mass per unit area	2.7595 kg/m ²
Generic type of product	Insulation blanket
Flame retardant treatment added or organic content limited during production (yes/no), if yes give details	None
European product standard, if applicable	EN ISO 1716; BS EN ISO 1182
Industry/in-house product standard, if applicable	
Attestation of conformity systems	
Interior facing 1 - Generic type - Product reference - Manufacturer - Thickness - Mass per unit area/ density - Colour reference - Trade name flame retardant - Generic type flame retardant - Amount flame retardant	Foil 15 um one side only 40.5 g/m ²
Interior facing 2 - Generic type - Product reference - Manufacturer - Thickness - Mass per unit area/ density - Colour reference - Trade name flame retardant - Generic type flame retardant - Amount flame retardant	Fibre Glass Scrim 3 mm x 3 mm 58 g/m ²
Interior facing 3 - Generic type - Product reference - Manufacturer - Thickness - Mass per unit area/ density - Colour reference - Trade name flame retardant - Generic type flame retardant - Amount flame retardant	Foil 15 um one side only 40.5 g/m ²



Company: Boulder Developments Ltd	
Parameter	Details
Core <ul style="list-style-type: none"> - Generic type - Product reference - Manufacturer - Thickness - Mass per unit area/ density - Colour reference - Trade name flame retardant - Generic type flame retardant - Amount flame retardant 	Fibre Glass 20 mm 2.566 kg/m ² White None
Exterior facing 3- <ul style="list-style-type: none"> - Generic type - Product reference - Manufacturer - Thickness - Mass per unit area/ density - Colour reference - Trade name flame retardant - Generic type flame retardant - Amount flame retardant 	Foil 15 um one side only 40.5 g/m ²
Exterior facing 2- <ul style="list-style-type: none"> - Generic type - Product reference - Manufacturer - Thickness - Mass per unit area/ density - Colour reference - Trade name flame retardant - Generic type flame retardant - Amount flame retardant 	Fibre Glass scrim 3 mm x 3 mm 58 g/m ²
Exterior facing 1- <ul style="list-style-type: none"> - Generic type - Product reference - Manufacturer - Thickness - Mass per unit area/ density - Colour reference - Trade name flame retardant - Generic type flame retardant - Amount flame retardant 	Foil 15 um one side 40.5 g/m ²
Adhesive <ul style="list-style-type: none"> - Generic type - Product reference - Manufacturer - Thickness - Mass per unit area/ density - Colour reference - Trade name flame retardant - Generic type flame retardant - Amount flame retardant 	
Face to be tested	
Orientation aspects	
Sampling Identification Reference	
Additional information:	

=====REPORT ENDS=====