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Testing, calibrating, advising.

Title:

European reaction to fire classification of Teknos FR Facade in accordance with BS EN 13501-1.

WF Report No:

BMT/RFP/F15069/03
Revision 2

Prepared for:

Teknos AB

Industrigatan 7
711 72 Vedevag
Sweden

Date:

April 2016

Notified Body No:

1314



1762

Exova Warringtonfire – the new name for BM TRADA

On December 1st 2015, Chiltern International Fire Limited (trading as BM TRADA) commenced trading under the name Exova Warringtonfire.

To coincide with this change, our Technical Reports, Test Reports, Product Assessments, company stationery and marketing collateral have been updated to reflect the Exova Warringtonfire branding.

The validity of all documents previously issued by Chiltern International Fire Limited including certificates, test reports and product assessments is unaffected by this change. A letter to this effect is available upon request by e-mailing globalfire@exova.com

About Exova Warringtonfire

Exova Warringtonfire is part of the Exova Group one of the world's leading laboratory-based testing groups, trusted by organisations to test and advise on the safety, quality and performance of their products and operations. Headquartered in Edinburgh, UK, Exova operates 143 laboratories and offices in 32 countries and employs around 4,500 people throughout Europe, the Americas, the Middle East and Asia/Asia Pacific. With over 90 years' experience, Exova specialises in testing across a number of key sectors from health sciences to aerospace, transportation, oil and gas, fire and construction.

Be assured that whilst the name will change, your service provision and primary contacts have not. What will be available to you is a wider team of testing experts and an extended range of testing capabilities including structural steelwork testing, ventilation duct and damper testing, ASTM testing, water mist system testing and smoke toxicity testing and covering additionally both the rail and marine sectors.

If you have any questions, please do not hesitate to contact a member of the team and we will do our best to answer them. We appreciate your business to date and we look forward to working with you in the future.

Kind regards

Exova Warringtonfire

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1 Introduction

This classification report defines the classification assigned to the product, Teknos FR Facade, in accordance with the procedures given in BS EN 13501-1:2007+A1:2009 Fire classification of construction products and building elements – Part 1: Classification using data from reaction to fire tests.

1.1 Membership of EGOLF and GNB-FSG SH02

BM TRADA is a member of EGOLF and GNB-FSG (Fire Sector Group for the Group of Notified Bodies) and any agreements and recommendations that have been drawn up by these bodies to harmonise the approach of Laboratories has, where relevant, been incorporated within this classification report.

1.2 Sampling

BM TRADA did not conduct any sampling of this product and the Sponsor did not provide evidence that any sampling had taken place.

2 Details of classified product

2.1 Product description

The product, Teknos FR Facade, is described briefly below.

Product name	Teknos FR Facade	
Description	Glulam panels of solid Spruce with sawn front face and planed rear face, coated with Teknos Facade system.	
Top coating	Product name:	Nordica Eko 3330-03
	Manufacturer:	Teknos OY
	Description:	Paint top coating for exterior use. Chemicals & proportions - See Note 2
	Thickness:	125µm ±10%
	Mass per unit area:	150g/m ² ±10%
	Colour:	White
	Application method:	Sprayed on
	Fire retardant:	See Note 1
Base/primer coating	Product name:	Teknosafe 2407
	Manufacturer:	Teknos OY
	Description:	Fire intumescent primer. Chemicals & proportions - See Note 2
	Batch number:	32324-*-*1
	Thickness:	280µm ±10% front face 200µm ±10% rear face
	Mass per unit area:	350g/m ² ±10% (wet) front face 250g/m ² ±10% (wet) rear face
	Colour:	White
	Application method:	Sprayed on
	Fire retardant:	Teknosafe 2407 is an intumescent primer.

Note 1: The sponsor has confirmed that there is no clearly identifiable stage in the production process of this component which results in an improvement in the reaction to fire performance (for example addition of a fire retardant, limiting organic content or addition of fillers).

Note 2: The sponsor was unwilling/unable to provide this information.

Timber cladding boards	Product name:	Glulam panels of Spruce solid wood
	Species:	Scandinavian Spruce (Picea Abies)
	Manufacturer:	Martinsons Group AB
	Description:	Glulam panels of Spruce solid wood with sawn front face and planed rear face. Lamellar sawn spruce glued together to a size approximately 25mm x 300mm sawn and planed after gluing.
	Product code:	20253003921801235
	Thickness:	25mm ± 10% (25.0mm measured)
	Density:	500kg/m ³ ± 100kg/m ³ (425.7kg/m ³ measured)
	Colour:	Spruce To verify colour of the product BM TRADA use the RAL system, BM TRADA identify the colour of the product as being closest to RAL colour code: 1015
Cladding fixings	Product name:	Cladding fixing nails
	Product code:	INO 7528KV6
	Manufacturer:	Kartro
	Description:	Galvanised Kartro profiled with round flat head
	Size:	2,8 x 75mm (2.97mm thick including coating, 74.00mm long measured)
	Colour:	Silver To verify colour of the product BM TRADA use the RAL system, BM TRADA identify the colour of the product as being closest to RAL colour code: 9007

Horizontal timber fixing battens	Product name:	Sawn treated softwood
	Supplier:	Wickes/SCA Timber
	Product number:	133666
	Manufacturer:	Bayram Limited.
	Description:	25mm x 38mm sawn pressure treated softwood
	Thickness:	25mm
	Colour:	To verify colour of the product BM TRADA use the RAL system, BM TRADA identify the colour of the product as being closest to RAL colour code: 1014
	Preservative treatment:	Tanalith E produced by Arch timber protection
Vertical timber fixing studs	Product name:	Sawn treated softwood
	Supplier:	Wickes/SCA Timber
	Manufacturer:	BSW Timber Ltd.
	Description:	19mm x 47mm sawn pressure treated softwood
	Thickness:	19mm
	Colour:	To verify colour of the product BM TRADA use the RAL system, BM TRADA identify the colour of the product as being closest to RAL colour code: 1014
	Preservative treatment:	Tanalith E produced by Arch timber protection
	Manufacture:	Cut from 19mm x 100mm sawn, treated softwood supplied (product number 107062).

Coated cladding panel overall width:	322mm measured
Coated cladding Density:	500kg/m ³ ± 100kg/m ³ (437kg/m ³ measured)
Coated cladding Mass per unit area:	(11.3kg/m ² measured)
Coated cladding Thickness:	25mm (25.64 – 25.88mm measured)
Coated cladding Colour:	White To verify colour of the product BM TRADA use the RAL system, BM TRADA identify the colour of the product as being closest to RAL colour code: 9003
Manufacture of coated boards:	Bergströms måleri AB industrially treated glulam spruce wood with approximately 350 g / sqm wet with a fire retardant primer type Teknosafe 2407 and about 150 g / sqm with an intermediate coat type Nordica Eko 3330. The product is produced according to the rules given in the product standard EN 14915:2013.

Table 1: Product specification

The intended application of the building product is as external cladding for buildings where there are fire safety requirements.

3 Test reports/extended application reports and test results in support of classification

3.1 Test reports/extended application reports

Name of Laboratory	Name of Sponsor	Test Reports / Extended application results	Test Method
BM TRADA	Teknos AB	BMT/RFP/ F15069/01	BS EN ISO 11925-2:2010
BM TRADA	Teknos AB	BMT/RFP/ F15069/02	BS EN 13823:2010

3.2 Test results

Test Method	Number of tests and report number	Parameter	Results	
			Parameter - mean	Compliance with parameters for classification
BS EN ISO 11925-2:2010				
30s exposure surface test Clause 7.3.3.1	6 BMT/RFP/ F15069/01	F _s (flame spread)	F _s ≤ 150mm within 60s	compliant
		Flaming droplets/ particles	No ignition of filter paper	compliant
BS EN 13823:2010				
BS EN 13823:2010	3 BMT/RFP/ F15069/02	FIGRA 0.2 MJ	103.7	compliant
		LFS (to edge of specimen)	None	compliant
		THR 600s	5.10	compliant
		SMOGRA	0	compliant
		TSP 600s	40.8	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 8 of BS EN 13501-1:2007+A1:2009 Fire classification of construction products and building elements – Part 1: Classification using data from reaction to fire tests.

4.2 Classification

The product, Teknos FR Facade, in relation to its reaction to fire behaviour is classified:

B

The additional classification in relation to smoke production is:

s1


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

d0

Reaction to fire classification: B-s1, d0

4.3 Field of application

This classification is valid for the following product parameters:

Thickness	25mm nominal thickness of coated product x 322mm nominal width			
Coating	Face	Coating	(μm)	g/m^2 (wet)
	Front	Nordica Eko 3330-03 top coat	$125 \pm 10\%$	$150 \pm 10\%$
		Teknosafe 2407 base coat	$280 \pm 10\%$	$350 \pm 10\%$
Rear	Teknosafe 2407 base coat	$200 \pm 10\%$	$250 \pm 10\%$	
Colour	White			
Timber Species	Scandinavian Spruce (Picea Abies)			
Mass per unit area	$11.3 \text{ kg}/\text{m}^2$			
Density	$437 \text{ kg}/\text{m}^3$			
Surface classified	The classification has been carried out with the coated sawn face of the product being deemed as the front face.			
Product profile				

This classification is valid for the following end use applications:



Substrate*	Any substrate of Class A1 or A2-s1,d0 with a density of at least $525 \text{ kg}/\text{m}^3$ and a thickness of at least 12.0mm.
Air gap	Ventilated cavity
Means of fixing	Product fixed to timber battens
Orientation	Vertical
Corner joint	Butt joint
Horizontal joint	No
Vertical joint	No
Exposed edges	No

* Reference EGOLF recommendation EGR 57:2011 (substrate thickness)

5 Limitations










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

6 Authorisation

	Written by:	Checked and Authorised by:
Signature:		
Name:	Philip Howard	Mark Cummings
Title:	Technical Head - Fire	Commercial Head - Fire
Date of issue:		04/05/16

7 Revisions

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