

Classification Report :
Reaction to Fire Classification
Report on 'Trilite RMS Board'
also referred to as 'Versafire'

Test report number 214232 -
Revision 1

BRE

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11th October 2003



0578

1 Introduction

This classification report defines the classification assigned to 'Trilite RMS Board' also referred to as 'Versafire' in accordance with the procedures given in EN 13501-1.

Details of classified product

1.1 Nature and end use application

The 'Trilite RMS Board', also referred to as 'Versafire', is defined by the sponsor as a product suitable for use as a drywall, linings, partitions, external cladding, ceiling and fire doors. The sponsor states the product is supplied in sheet form at thicknesses of 3, 4, 6, 8, 9, 10 and 12 mm.

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

This classification is based upon the characteristics of non-combustibility and calorific potential and is thus independent of the end use of the product.

1.2 Description

The product 'Trilite RMS Board' also referred to as 'Versafire' comprises:

Product Thickness: 10 (+0.4, -0.2) mm, declared by manufacturer

Density: 1176 kg/m³ (measured, based on reference 1)

Mass per unit area: 11.82 kg/m² (measured)

Colour: off-white

The product supplied by the sponsor, consisted of a 8.9 mm-thick layer of a magnesium oxide (MgO) based material, sandwiched between two layers of 0.2mm-thick fibreglass mesh. The fibreglass mesh on the reverse face constituted the outer layer of the product, whilst the fibreglass mesh on the front face was covered with a nominal 0.6 to 0.7mm-thick polished layer of the same magnesium oxide based material that constituted the core.

The composition of the product together with the manufacturer's details have been declared by the test sponsor and are retained, in confidence, by the laboratory, at the request of the test sponsor.

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The density of the product was declared by the sponsor to be $1100 \text{ kg/m}^3 \pm 100 \text{ kg/m}^3$.
 All measurements given are nominal unless tolerances are stated.

2 Test reports and test results in support of this classification

2.1 Test reports

Name of laboratory	Name of sponsor	Test report ref. no.	Test method
BRE Ltd, Bucknalls Lane, Garston, Herts. WD25 9XX	Bailey and Davison Ltd, The Street, Bishop's Canning, Devizes, Wiltshire, SN10 2LD.	213157	BS EN ISO 1716:2002
Warrington Fire Research Ltd, Homesfield Rd, Warrington, WA1 2DS	Bailey and Davison Ltd, The Street, Bishop's Canning Devizes, Wiltshire, SN10 2LD.	WARRES 131213 (Issue 2)	BS EN ISO 1182:2002

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2.2 Test results for construction products except floorings

Test method	Parameter	Number of tests	Results	
			Continuous parameter mean (m)	Compliance parameters
EN ISO 11925-2 surface/edge flame attack* 15 s exposure 30 s exposure flaming droplets/particles	$F_s \leq 150$ mm $F_s \leq 150$ mm Ignition of the filter paper		-- -- --	-- -- --
EN 13823	FIGRA _{0,2MJ} FIGRA _{0,4MJ} LFS < edge THR _{600s} (MJ)		-- -- -- --	-- -- -- --
	SMOGRA (m ² /s ²) TSP _{600s} (m ³)		-- --	-- --
	Flaming droplets/particles		--	--
EN ISO 1182	ΔT (°C) ⁽¹⁾	5	2	--
	Δm (%) ⁽¹⁾	5	41.7	--
	t_i (s) ⁽¹⁾	5	Nil	--
EN ISO 1716	PGS (MJ/kg) ⁽¹⁾ , ⁽²⁾ , ⁽⁴⁾	2	0.606 – substantial 0.096 – external non substantial component 1 0.562 – external non substantial component 2 0.599 – Product	-- -- -- --
	PCS (MJ/m ²) ⁽²⁾ , ⁽³⁾		0.0076 – external non substantial component 1 0.520 – external non substantial component 2	-- -- --
	PCI ⁽⁵⁾		not requested	--
<p>* as required to the end use of the product. -- not applicable (1) for non-homogeneous products the parameters for each substantial component are given. (2) for non-homogeneous products the parameters for each external non-substantial component are given. (3) for non-homogeneous products the parameters for each internal non-substantial component are given. (4) the parameter for the product as a whole. (5) the corresponding PCI values where and if relevant for the classification (i.e. following a successful appeal)</p>				

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2.3 Test results for floorings

Test method	Parameter	Number of tests	Results	
			Continuous parameter mean (m)	Compliance parameters
EN ISO 11925-2 15 s exposure	Flame spread \leq 150 mm		--	--
EN ISO 9239-1	Critical flux (kW/m ²) Smoke (%.min)		--	--
EN ISO 1182	ΔT (C) ⁽¹⁾ t_i (s) ⁽¹⁾ Δm (%) ⁽¹⁾	5 5 5	2 1.7 Nil	-- -- --
EN ISO 1716	PCS (MJ/kg) ⁽¹⁾⁻⁽³⁾ PCS (MJ/m ²) ⁽²⁾⁻⁽³⁾ PCS	1 1 1	0.606 – substantial 0.096 – external non substantial component 1 0.562 – external non substantial component 2 0.599 – Product 0.0076 – external non substantial component 1 0.520 – external non substantial component 2 not requested	-- -- -- -- -- -- --
<p>* as required to the end use of the product. -- not applicable. (1) for non-homogeneous products the parameters for each substantial component are given. (2) for non-homogeneous products the parameters for each external non-substantial component are given. (3) for non-homogeneous products the parameters for each internal non-substantial component are given. (4) the parameter for the product as a whole. (5) the corresponding PCI values where and if relevant for the classification (i.e. following a successful appeal)</p>				

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3 Classification and direct field of application

3.1 Reference and direct field of application

This classification has been carried out in accordance with clauses 10.8.2 and 11.8.2 of EN 13501-1:2002.

3.2 Classification

The product 'Trilite RMS Board' also referred to as 'Versafire' in relation to its reaction to fire behaviour is classified:

A1

or

A1_w

3.3 Field of application

This classification is valid for product densities of the overall range $1100 \text{ kg/m}^3 \pm 100 \text{ kg/m}^3$.

4 Limitations

4.1 Restrictions

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

The specification and interpretation of fire test methods are the subject of ongoing development and refinement. Changes in associated legislation may also occur. For these reasons it is recommended that the relevance of test reports should be considered by the user. The laboratory that issued the report will be able to offer, on behalf of the legal owner, a review of the procedures adopted for a particular test to ensure that they are consistent with current practices, and if required may endorse the test report.

This report is revision 1 of BRE report 214232 dated 29th August 2003. At the request of the client, a revision to the product description has been made in this report. BRE report 214323 dated 29th August 2003 has been withdrawn with effect from the date of this report.

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4.2 Warning

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

Report	Name	Signature*	Date
Prepared by	Mrs C Rock Senior Consultant	CA Rock	21-10-03
Reviewed by	Dr D A Smith Director, FRS	DA Smith	21-10-03
*for and on behalf of BRE			

BRE
FRS
Bucknalls Lane
Garston
Watford
WD25 9XX

Tel : 01923 667000
Fax : 01923 664910
Email : frsenquiries@bre.co.uk
Website : www.bre.co.uk

5 Bibliography

1. ISO 9421:2003, Wood-based panels — Determination of density.

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