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Title:

CLASSIFICATION OF REACTION TO FIRE PERFORMANCE
IN ACCORDANCE WITH
EN 13501-1: 2018.

Product Name:

“Shadow Line+ Cladding”

Report No:

526003

Issue No:

1

Prepared for:

The Millboard Company Ltd
Ryton Lodge,
Oxford Road,
Coventry,
Warwickshire,
CV8 3EJ

Date:

5th May 2023

1. Introduction

This classification report defines the classification assigned to “Shadow Line+ Cladding”, a family of cladding panel products, in line with the procedures given in EN 13501-1: 2018.

2. Details of classified product

2.1 General

The products, “Shadow Line+ Cladding”, are defined as being suitable for construction applications, excluding flooring and linear pipe thermal insulation.

2.2 Product description

The products, “Shadow Line+ Cladding”, are fully described below and in the test reports provided in support of classification listed in Clause 3.1.

Item	Detail
General description	Millboard shadow line+ cladding, fixed through the tongue to treated timber battens with Millboard corner profiles and aluminium trims
Product reference	“Shadow Line+ Cladding”
Name of manufacturer	The Millboard Company Limited
Overall thickness	18mm (stated by sponsor)
Plank width	200mm (stated by sponsor)
Plank dimensions	200mm x 18mm x 3600mm (stated by sponsor)
Overall weight per unit area including substrate	12kg/m^2 (stated by sponsor)
Profile diagram	

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Coating	Generic type	UV stable 2K coated elastomer layer
	Product reference	See Note 1 below
	Name of manufacturer	The Millboard Company Limited
	Colour	Tested: Jarrah, Limed Oak and Burnt Cedar
	Thickness	3mm
	Weight per unit area	3.5kg/m^2
	Flame retardant details	See Note 2 below
	Curing process	See Note 2 below
Core	Generic type	Blend of natural minerals bonded in a polymer resin, with long fibre reinforcement
	Product reference	See Note 1 below
	Name of manufacturer	The Millboard Company Limited
	Colour	Grey
	Thickness	15mm
	Weight per unit area	8.5kg/m^2
	Flame retardant details	See Note 1 below
Corner profile	Generic type	UV stable 2K coated flexible polymer
	Product reference	“Shadow Line+ Corner Profile”
	Dimensions	38mm x 38mm x 3050mm
	Name of manufacturer	The Millboard Company Limited
	Thickness	See Note 2 below
	Weight per unit area	See Note 2 below
	Flame retardant details	See Note 2 below
Aluminium trims	Generic type	Aluminium trims
	Product reference	“Envello Aluminium trims”
	Detailed description	Perforated closures, located at the bottom and top of cladding area to allow ventilation behind the boards)
	Dimensions	50mm x 25mm
	Name of manufacturer	See Note 2 below
	Thickness	See Note 2 below
	Density	See Note 2 below
	Flame retardant details	The component is inherently flame retardant

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Fixing details		
Timber battens	Generic type	Treated timber battens at max 600mm centres
	Product reference	“Treated timber battens”
	Timber species	See Note 1 below
	Thickness	25mm
	Weight per unit area	See Note 1 below
	Name of supplier	See Note 1 below
	Flame retardant details	See Note 1 below
	Cycle details	See Note 1 below
Substrate details		
Breather membrane	Generic type	Vapour permeable underlay
	Product reference	“Breather Membrane”
	Name of manufacturer	See Note 1 below
	Colour	See Note 1 below
	Thickness	0.7mm
	Weight per unit area	0.16kg/m²
	Type of weave	See Note 1 below
	Flame retardant details	See Note 1 below
Sheathing board	Generic type	Oriented strand board (OSB)
	Product reference	“OSB”
	Name of manufacturer	See Note 1 below
	Thickness	12mm
	Weight per unit area	7kg/m²
	Density	600kg/m³
	Flame retardant details	See Note 1 below
Joint details		Horizontal and vertical joints
Orientation of planks		Horizontal or vertical orientation only

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Brief description of manufacturing process	Products are made through a layering process in wood-grained moulds, before being machined to form the finished profile.

Note 1: The sponsor was unable to provide this information.

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

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

3.1 Test reports/extended application reports

Name of Laboratory	Name of sponsor	Test reports/classification report Nos.	Test method / classification rules & date
Warringtonfire	The Millboard Company Limited	Formal: 525851 (Issue 2) Indicative: 525852 (Issue 2), 525853 (Issue 2)	EN ISO 11925-2: 2020
Warringtonfire	The Millboard Company Limited	Formal: 525850 (Issue 2 incorporating supplement 1) Indicative: 524431 (I3), 524433 (I3), 524434 (I3), 524435 (I3), 524924 (I3)	EN 13823: 2020
Warringtonfire	The Millboard Company Limited	WF 526004	EN 15725:2010 and EN/TS 15117:2005

3.2 Test results

Test method & test number	Parameter	No. tests	Report	Results	
				Continuous parameter - mean (m)	Compliance parameters
EN ISO 11925-2 (30s exposure - surface)	F_s	6	525851 (I2)	-	Compliant (≤ 40 mm)
		2	525852 (I2)	-	Compliant (≤ 40 mm)
		2	525853 (I2)		Compliant (Nil mm)
	Flaming droplets/ particles	6	525851 (I2)	-	Compliant
		2	525852 (I2)		Compliant
		2	525853 (I2)	-	Compliant
EN ISO 11925-2 (30s exposure – edge)	F_s	6	525851 (I2)	-	Compliant (≤ 40 mm)
		2	525852 (I2)		Compliant (≤ 30 mm)
		2	525853 (I2)	-	Compliant (≤ 40 mm)
	Flaming droplets/ particles	6	525851 (I2)	-	Compliant
		2	525852 (I2)		Compliant
		2	525853 (I2)	-	Compliant
EN ISO 11925-2 (30s exposure – edge, turned through 90º) Core	F_s	6	525851 (I2)	-	Compliant (≤ 80 mm)
		2	525852 (I2)		Compliant (≤ 70 mm)
		2	525853 (I2)	-	Compliant (≤ 70 mm)
	Flaming droplets/ particles	6	525851 (I2)	-	Compliant
		2	525852 (I2)		Compliant
		2	525853 (I2)	-	Compliant
EN 13823	FIGRA $_{0.2MJ}$	3	525850 (I2 incl. Suppl. 1)	216 W/s	-
		1	524431 (I3)	213 W/s	-
		1	524433 (I3)	236 W/s	-
		1	524434 (I3)	244 W/s	-
		1	524435 (I3)	229 W/s	
		1	524924 (I3)	234 W/s	-

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EN 13823 (Continued)	FIGRA $_{0.4MJ}$	3	525850 (I2 incl. Suppl. 1)	216 W/s	-
		1	524431 (I3)	213 W/s	-
		1	524433 (I3)	236 W/s	-
		1	524434 (I3)	244 W/s	-
		1	524435 (I3)	229 W/s	
		1	524924 (I3)	234 W/s	-
	THR $_{600s}$	3	525850 (I2 incl. Suppl. 1)	16.1 MJ	-
		1	524431 (I3)	19.0 MJ	-
		1	524433 (I3)	18.8 MJ	-
		1	524434 (I3)	17.6 MJ	-
		1	524435 (I3)	23.2 MJ	-
		1	524924 (I3)	18.0 MJ	-
	LFS	3	525850 (I2 incl. Suppl. 1)	-	Compliant
		1	524431 (I3)	-	Compliant
		1	524433 (I3)	-	Compliant
		1	524434 (I3)	-	Compliant
		1	524435 (I3)	-	Compliant
		1	524924 (I3)	-	Compliant
	SMOGRA	3	525850 (I2 incl. Suppl. 1)	118 m^2/s^2	-
		1	524431 (I3)	115 m^2/s^2	-
		1	524433 (I3)	119 m^2/s^2	-
		1	524434 (I3)	112 m^2/s^2	-
		1	524435 (I3)	108 m^2/s^2	-
		1	524924 (I3)	113 m^2/s^2	-
	TSP_{600s}	3	525850 (I2 incl. Suppl. 1)	600 m^2	-
		1	524431 (I3)	638 m^2	-
		1	524433 (I3)	652 m^2	-
		1	524434 (I3)	624 m^2	-
		1	524435 (I3)	584 m^2	-
		1	524924 (I3)	537 m^2	-
	Fall of Flaming Droplet/Particle?	3	525850 (I2 incl. Suppl. 1)	-	Compliant
		1	524431 (I3)	-	Compliant
		1	524433 (I3)	-	Compliant
		1	524434 (I3)	-	Compliant
		1	524435 (I3)	-	Compliant
		1	524924 (I3)	-	Compliant

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EN 13823 (Continued)	Flaming of Fallen Particle Exceeding 10s?	3	525850 (I2 incl. Suppl. 1)	-	Compliant
		1	524431 (I3)	-	Compliant
		1	524433 (I3)	-	Compliant
		1	524434 (I3)	-	Compliant
		1	524435 (I3)	-	Compliant
		1	524924 (I3)	-	Compliant

4. Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with clause 8 of EN 13501-1: 2018, BS EN 15725: 2010 and EN/TS 15117: 2005.

4.2 Classification

The products, “Shadow Line+ Cladding”, a family of cladding panel products, in relation to their reaction to fire behaviour are classified:

D

The additional classification in relation to smoke production is:

s3

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

d0

The format of the reaction to fire classification for construction applications, excluding flooring and linear pipe thermal insulation is:

Fire Behaviour		Smoke Production			Flaming Droplets	
D	**-**	**s**	**3**	**,**	**d**	**0**

i.e. D – s3 , d0

Reaction to fire classification: D – s3, d0

4.3 Field of application

This classification is valid for the following end use applications:

i) Construction applications, applied to a 12mm thick OSB board with a breather membrane with a thickness of 0.7mm and a weight per unit area of 0.16kg/m² between the product and the OSB substrate with a thickness of 12mm and a weight per unit are of 7kg/m², as per the test setup, and mounted onto timber battens with a 25mm air gap.

This classification is also valid for the following product parameters:

Product thickness	No variation allowed
Product weight per unit area	No variation allowed
Plank width	No variation allowed
Product colour	Antique Oak, Smoked Oak, Brushed Basalt, Limed Oak, Burnt Cedar, Golden Oak, Coppered Oak, Jarrah.
Grain type	Enhanced grain
Product composition	No variation allowed
Product construction	No variation allowed
Joints	Horizontal or vertical joints only
Orientation of plank	Horizontal and vertical orientation only

5. Limitations

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

SIGNED

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Claire Lawrence
Product Assessor
Technical Department

APPROVED

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Stacey Deeming
Principal Product Assessor
Technical Department
on behalf of Warringtonfire

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