

System Laboratories UK LTD

Classification Report

Fire classification of construction products and building elements - Part 5: Classification using data from external fire exposure to roofs tests

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Prepared for Ryno Ltd.
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1. Introduction

This classification report defines the classification assigned to TerraSmart Wet Pour Rubber System, in accordance with the procedures given in EN 13501-5: 2016.

EXTERNAL EXPOSURE TO FIRE CLASSIFICATION REPORT IN ACCORDANCE WITH EN 13501-5: 2016 test 4

Sponsor:	Ryno Ltd.
Prepared for:	Ryno Ltd.
Place of manufacture:	Castle Point, Castle Way, Ellon, Aberdeenshire, AB41 9RG, UK
CAB Number:	N/A
Classification report No.:	1537-A
Date of issue	02/05/2025

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2. Details of classified product

2.1. General

Classification according to EN 13501-5:2016 of TerraSmart Wet Pour Rubber System.

2.2. Traceability

The test sample was supplied by the sponsor. System Laboratories UK LTD was not involved in the sampling process and therefore cannot comment upon the relationship between the samples supplied for the test and the products supplied to the market.

2.3. Sample details

Test sponsor	Ryno Ltd Castle Point Castle Way Ellon Aberdeenshire AB41 9RG, United Kingdom
Place of manufacture	As above
Trade name	TerraSmart Wet Pour Rubber System
Sample description (as provided by sponsor)	Rubber crumb surface (wet pour) applied to raised support system, (100 to 150mm) for use on roof terraces
Product data (as provided by sponsor)	
Generic type of product	Rigid insulated roof
Nominal thickness	210 mm
Density of core	1600 kg/m ³
Mass per unit area	64 kg/m ²
Colour	Seashell
Test face	Rubber surfacing

Flame retardant added, or No flame retardant added
 organic content limited
 during production

Substrate and ventilation conditioned
 Substrate Ryno TerraSmart Baseboard raised system

2.4. Detailed product description

The roof/roof covering comprises, top to bottom.

Rubber Crumb Surface	Type of product/layer	Rubber crumb wet pour
	Product/layer reference	Rubber Crumb Surfacing
	Thickness	40 mm
	Colour	Cream
	Construction form	20 mm Cream EPDM granulate top layer + 20 mm black SBR base layer (typically used for play surfaces) bonded with a 2 part PU resin binder, installed on fibreglass mesh 160 gsm onto aluminium baseboard (layer 2)
Aluminium Baseboard	Type of product/layer	Aluminium Baseboard
	Product/layer reference	BB25 Baseboard
	Thickness	25 mm
	Colour	Mill finished aluminium
	Construction form	Mechanically fixed to DS joist extrusions (layer 3)
Aluminium Joist	Type of product/layer	Aluminium Joist
	Product/layer reference	DS25 aluminium joist
	Thickness	25 mm
	Colour	Mill finished aluminium
	Construction form	Mechanically fixed to pedestals (layer 4)
Pedestal supports	Type of product/layer	Pedestal supports
	Product/layer reference	RDA-4C
	Thickness	100 - 150 mm
	Colour	Black
	Construction form	Free standing system installation onto insulation (layer 5)

Detailed product description continued

Insulation	Type of product/layer	Insulation
	Product/layer reference	Protherm GXPS x 300SL
	Thickness	50 mm
	Colour	Grey
	Construction form	Loose laid onto felt membrane (layer 6)
Waterproof Membrane	Type of product/layer	Waterproof Membrane
	Product/layer reference	Bituminous roof membrane
	Thickness	4 mm
	Colour	Black
	Construction form	Loose laid onto plywood
Plywood	Type of product/layer	Plywood
	Product/layer reference	18 mm OSB 3 board
	Thickness	18 mm
	Colour	Brown
	Construction form	Base of roof build up

3. Reports and results in support of this classification

3.1. Reports

Name of laboratory	Name of test sponsor	Test report No.	Test method/field of application
System Laboratories UK	Ryno Ltd	1522-A	CEN/TS 1187:2012 t4

3.2. Results

Test conditions	
Temperature:	21.8 °C
Test Pitch:	0°
Deck:	Rubber crumb surface, colour-seashell
Supporting structure:	Pedestal Supports (RDA-4C)

Stage:	Parameter	Number of tests	Results	
			Continuous parameter mean	Compliance with class
Preliminary test (Stage 1)	Burn time (s)	1	0 s	< 5 min Compliant
	Spread distance (mm)	1	0 mm	< 0.38 m Compliant
	Penetration (Y/N)	1	N	None Compliant
Penetration test (Stage 2):	Penetration time (min)	3	N/A	No penetration Compliant

4. Classification and field of application

4.1. Reference of classification

This classification has been carried out in accordance with EN 13501-5:2016.

4.2. Classification

The roof/roof covering TerraSmart Wet Pour Rubber System, in relation to its external fire performance is classified:

External fire performance classification:	BR00F(t4)
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4.3. Field of application

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

Pitches	0 - 10 degrees
Decks	No variation allowed
Substrates	No variation allowed
Supporting structure	As tested 100 to 150 mm
Build-up / Composition	No variation allowed

5. Limitations

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

The laboratory has played no part in sampling of the product.

6. References

EN 13501-5:2016 - Fire classification of construction products and building elements

CEN/TS 1187:2012 - Test methods for external fire exposure to roofs (Test 4)

-End of Report-