

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 Non-combustible Fixed Head Adjustable Pedestal System and porcelain paving, 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, AB41 9RG
CAB Number:	N/A
Classification report No.:	2223-A
Date of issue	28/05/2026

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2. Details of classified product

2.1. General

Classification according to EN 13501-5:2016 of Non-combustible Fixed Head Adjustable Pedestal System and porcelain paving.

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 Castlepoint Castle Way Ellon AB41 9RG
Place of manufacture	As above
Trade name	Non-combustible Fixed Head Adjustable Pedestal System and porcelain paving
Sample description (as provided by sponsor)	Ryno Porcelain paving, installed on RP-FR Non-combustible fixed head adjustable pedestals. The pedestals feature a TPE head spacer gasket, and a 3mm BRSP base rubber shockpad (used primarily for sound absorption and membrane protection) is placed under the pedestal base, on top of the insulation. The system was built on, but not fixed to, a mock roof build up featuring a Euroclass E fire rated XPS insulation and a waterproofed plywood deck. Product data (as provided by sponsor)
Generic type of product	Porcelain paving and adjustable pedestal system
Nominal thickness (mm)	200
Density of core (kg/m ³)	2370
Mass per unit area (kg/m ²)	55
Colour	Various
Test face	Porcelain Paving

Flame retardant added, or
organic content limited
during production

No flame retardant added

Substrate and ventilation conditioned

Substrate RP-FR Non-combustible fixed head adjustable pedestals. The pedestals feature a TPE head spacer gasket, and a 3mm BRSP base rubber shockpad (used primarily for sound absorption and membrane protection) is placed under the pedestal base, on top of the insulation. The system was built on, but not fixed to, a mock roof build up featuring a Euroclass E fire rated XPS insulation and a waterproofed plywood deck.

2.4. Detailed product description

The roof/roof covering comprises, top to bottom.

[Layer 1]	Type of product/layer	Ryno Porcelain Tiles and Concrete Paving
	Product/layer reference	Ryno Porcelain Paving
	Thickness	20 mm
	Colour	N/A
	Construction form	porcelain tile loose laid on pedestal support (layer 2)
[Layer 2]	Type of product/layer	Non-combustible fixed head pedestals
	Product/layer reference	Zinc-nickel electroplated mild steel pedestal support
	Thickness	115-205 mm adjustment range. Void beneath pavers set to 180 mm
	Colour	Steel
	Construction form	Pedestals loose laid onto insulation layer. A 3mm BRSP base rubber shockpad (used primarily for sound absorption and membrane protection) is placed under the pedestal base, on top of the insulation
[Layer 3]	Type of product/layer	Insulation
	Product/layer reference	Euroclass E fire rated XPS Insulation
	Thickness	50 mm
	Colour	Grey
	Construction form	Loose laid onto waterproofing layer

[Layer 4]	Type of product/layer	Waterproofing layer
	Product/layer reference	Bituminous Felt Membrane
	Thickness	5 mm
	Colour	Black
	Construction form	Loose laid onto 18 mm OSB backing board
Deck	Type of product/layer	18 mm OSB backing board
	Product/layer reference	18 mm OSB backing board
	Thickness	18 mm
	Colour	Natural
	Construction form	18 mm OSB decking

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	2207-A	CEN/TS 1187:2012 - test 4

3.2. Results

Test conditions:	17.9°C
Test Pitch:	0°
Deck:	18 mm OSB backing board
Supporting structure:	Fixed head pedestals

Stage:	Parameter	Number of tests	Results	
			Continuous parameter mean	Compliance with class B_{ROOF}(t₄)
Preliminary test (Stage 1)	Burn time (s)	1	0 s	< 5 mins Compliant
	Flame Spread distance (m)	1	0 m	< 0.38 m Compliant
	Penetration (Y/N)	1	N	No penetration Compliant
Penetration test (Stage 2):	Penetration time (min)	3	No penetration	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 Ryno Porcelain paving, installed on RP-FR Non-combustible fixed head adjustable pedestals. The pedestals feature a TPE head spacer gasket, and a 3mm BRSP base rubber shockpad (used primarily for sound absorption and membrane protection) is placed under the pedestal base, on top of the insulation. The system was built on, but not fixed to, a mock roof

External fire performance classification:	B_{ROOF}(t4)
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This classification document does not represent type approval or certification of the product.

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

4.3. Field of application

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

Pitches	0-10°
Decks	No variation allowed
Substrates	No variation allowed
Supporting structure	No variation allowed

5. 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

-End of Report-