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CLASSIFICATION REPORT

Classification report for roofs/roof coverings
exposed to external fire (flat) in accordance with
EN 13501-5: 2016 on Aperture Weathering
System, 60mm PIR insulation, 18mm plywood
deck

Prepared for: Aperture
Date: 03.11.2025
Report number: P130817-1001
Issue: 1
Status: Final - Commercial in Confidence
Test Date: 01.09.2025

Prepared for:

Aperture
Richmond Park
Trafford Park
Manchester
M17 1RE
United Kingdom

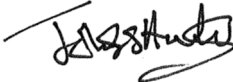
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Date 03 November 2025

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Date 03 November 2025

Signature 

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EXTERNAL EXPOSURE TO FIRE CLASSIFICATION (flat)
REPORT OF
Aperture Weathering System, 60mm PIR insulation, 18mm Plywood deck

Classification report No.:	P130817-1001
Issue number:	1
Sponsor:	Aperture
Product name:	Aperture Weathering System, 60mm PIR insulation, 18mm plywood deck
Prepared by:	BRE Global Ltd., Bucknalls Lane, Garston, Watford, WD25 9XX, England.
Approved Body Number	0832
Date of issue:	03 November 2025

This classification report consists of 13 pages and may only be used or reproduced in its entirety.

1.Introduction

This classification report defines the classification (flat) assigned to roof/roof covering 'Aperture Weathering System, with 60mm PIR insulation on an 18mm Plywood deck' in accordance with the procedures given in EN 13501-5: 2016.

2.Sample

2.1 Traceability

The test samples were supplied by the client. BRE Global were not involved in the sample selection process and therefore cannot comment upon the relationship between samples supplied for test and the product supplied to market. The results apply to the sample as received.

2.2 Description of the roof/roof covering

Unless otherwise stated all measurements are nominal.

Test Sponsor	Aperture, Richmond Park, Trafford Park, Manchester, M17 1RE, United Kingdom
Manufacturer of sample	See note 1
Sample name/reference	Aperture Weathering System, 60mm PIR insulation, 18mm plywood deck
Place of manufacture	See note 1
Sample description (as provided by test sponsor/manufacturer)	Roof Waterproofing system A full definition of the product tested, as supplied by the test sponsor is included in Appendix A.
Description of sample (as received by BRE Global)	Metal panel coated on upper face with a grey liquid applied type coating, incorporating a chopped glass strand mat. Thickness varies from 1.48 to 2.55mm. Off-white rigid insulation foam with foil facings, printed with the logo "IKO Enertherm". Thickness 60mm. Foil AVCL layer with a black bitumen type underside, thickness <1mm. Plywood deck, thickness 18mm. Loose laid build-up. Photographs of the sample are included in Appendix B.

Note 1. At the request of the test sponsor this commercially sensitive information which forms part of the definition of the product tested/classified has been withheld from the report and is held on a confidential client file by BRE Global.

Measured sample data, determined by BRE Global @ 23 °C ± 2 °C and 50 % ± 5 % RH	
Mean sample density (kg/m ³)	270.6
Mean sample thickness (mm)	79.5
Mean sample mass per unit area (kg/m ²)	21.51
Sample receipt date	22 July
Test face	Grey Coated face
Test format	The test was carried out in the flat (0°) position
Date of test	01 September 2025
Purchase order	n/a
Test operator	L Cooper

3. Reports in support of classification

Name of Laboratory	Name of sponsor	Test report ref. no.	Test method
BRE Global	Aperture	P130817-1000	CEN/TS 1187: 2012 Test 4

4. Test results in support of classification

4.1 Test conditions

Test pitch:	Flat
Deck:	As product description, Section 2
Supporting structure:	As product description, Section 2

4.2 Preliminary test (Stage 1)

Parameter	Criteria				Test result	Compliance			
	Class B _{ROOF} (t4)	Class C _{ROOF} (t4)	Class D _{ROOF} (t4)	Class E _{ROOF} (t4)		Class B _{ROOF} (t4)	Class C _{ROOF} (t4)	Class D _{ROOF} (t4)	Class E _{ROOF} (t4)
Burn time	< 5 min	< 5 min	< 5 min	≥ 5 min	0:00 min:sec	Y	-	-	-
Flame spread distance	< 0,38m	< 0,38m	< 0,38m	No limit	0 mm	Y	-	-	-
Penetration	None	None	None	None	None	Y	-	-	-

4.3 Penetration test (Stage 2)

Parameter	Criteria				Test results				Compliance			
	Class B _{ROOF} (t4)	Class C _{ROOF} (t4)	Class D _{ROOF} (t4)	Class E _{ROOF} (t4)	Specimen 1	Specimen 2	Specimen 3	Mean*	Class B _{ROOF} (t4)	Class C _{ROOF} (t4)	Class D _{ROOF} (t4)	Class E _{ROOF} (t4)
Penetration time	≥ 60 min	< 60 min ≥ 30 min	< 30 min	< 30 min	≥ 60 min	≥ 60 min	≥ 60 min	≥ 60 min	Y	-	-	-
* If one or two of the specimens have not failed at one hour, a time of 60 min shall be used in calculating the mean time of penetration												

5. Classification and field of application

5.1 Reference of classification

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

5.2 Classification

The roof / roof covering 'Aperture Weathering System, 60mm PIR insulation, 18mm Plywood deck', as described in Section 2 above and Appendix A, in relation to its external fire performance is classified:

$$B_{ROOF}(t_4)$$

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

5.3 Field of application

This classification is valid for the following conditions:

Range of pitches	$0^{\circ} \leq \text{pitch} \leq 10^{\circ}$
Substrate / deck	18 mm Plywood. As tested, no variation allowed
Supporting structure	As tested, no variation allowed
Product configuration	As tested, no variation allowed
Product composition	As tested, no variation allowed
Product application method	As tested, no variation allowed
Product thickness	As tested, no variation allowed
Product colour	As tested, no variation allowed
Joints	As tested, no variation allowed

6. Limitations

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

The information in section 2.2 and Appendix A of this report, other than that indicated otherwise, has been supplied by the test sponsor and has not been independently verified by BRE Global. The validity of the results is conditional on the accuracy of that data.

7. References

- 1 BS EN 13501-5: 2016 Fire classification of construction products and building elements – Part 5: Classification using data from external fire exposure to roofs tests. BSI, London. 2016
- 2 CEN/TS 1187: 2012 Test methods for external fire exposure to roofs. Test 4 – Two stage method incorporating burning brands, wind and supplementary radiant heat. BSI, London. 2012

Appendix A – Product definition provided by the test sponsor

Product Definition

Test sponsor (Company name and address): Aperture, Richmond Park, Trafford Park, Manchester, M17 1RE	
Product name of roof covering tested	Aperture Weathering System
Product reference/number	Note 1
General description of roofing product tested and build up	Roof Waterproofing System
Manufacturer of the roofing product (Company name and address)	Note 2
Place of manufacture	Note 2
Test specimens assembled by (if not by roof product manufacturer)	Aperture
Thickness (overall depth of roof structure tested)	80mm
Mass per unit area (overall value for the roof structure tested)	21.5 kg/m ²
Fire retardant treatment added, or organic content limited during production (yes/no), if yes give details	No
Harmonised EN product standard, and AVCP System No. if applicable	None
Test face (Layer 1)	- Name/reference - Manufacturer - Type - Batch no. - Thickness - Mass per unit area - Colour - Application method - Joint details (fixing method, overlap, etc) - Trade name flame retardant - Generic type flame retardant - Amount flame retardant
	- Aperture Weathering System - Aperture - Note 1 - Note 1 - Note 1 - 1.5 l/m² - Slate Grey - Aperture weathering system applied at 0.5 l/m². - Aperture regular glass fibre mat and Aperture weathering system applied at a rate of 1 l/m² - No flame retardant - -

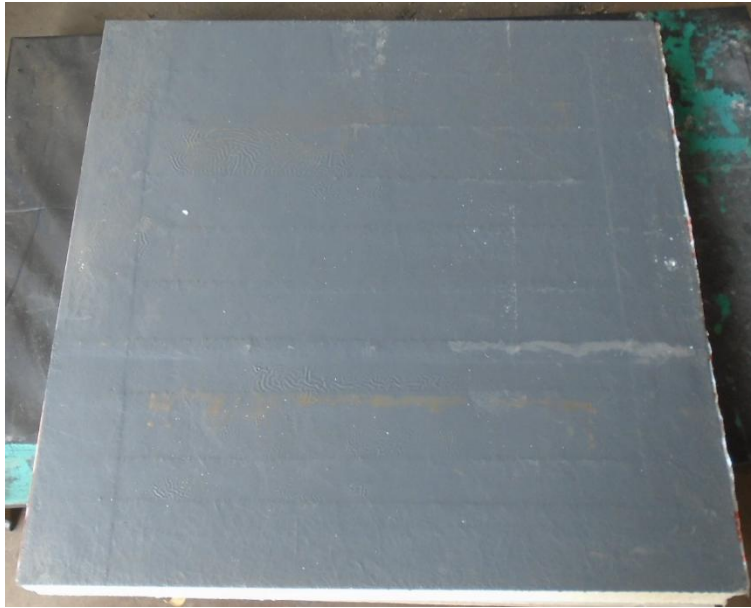
Test sponsor (Company name and address): Aperture, Richmond Park, Trafford Park, Manchester, M17 1RE	
Product name of roof covering tested	Aperture Weathering System
Layer 2 - Name/reference - Manufacturer - Type - Batch No. - Thickness - Mass per unit area - Colour - Application method - Joint details (fixing method, overlap, etc) - Trade name flame retardant - Generic type flame retardant - Amount flame retardant	- Plastisol coated metal - ArcelorMittal - Galvanised steel with plastisol coating Note 1 - 0.7mm - 5.5 kg/m2 - Goosewing grey - mechanically fixed - butt joint -No flame retardant
Layer 3 - Name/reference - Manufacturer - Type - Batch No. - Thickness - Mass per unit area - Colour - Application method - Joint details (fixing method, overlap, etc) - Trade name flame retardant - Generic type flame retardant - Amount flame retardant	- PIR insulation - IKO - IKO Enertherm Alu Note 1 - 60mm - 1.92 kg/m2 - Silver - mechanically fixed - 50mm overlap -No fire retardant
Layer 4 - Name/reference (eg "deck" or "substrate") - Manufacturer - Type - Batch No. - Thickness - Mass per unit area - Colour - Application method - Joint details (fixing method, overlap, etc) - Trade name flame retardant - Generic type flame retardant - Amount flame retardant	- Vapour Barrier - Carlisle Construction Material GMBH - Alutrix 600 Note 1 - 0.6mm - 700g/m2 - Grey - Self adhesive with FG35 Primer - Overlap of 50mm -No flame retardant
Layer 5 - Name/reference (eg "deck" or "substrate") - Manufacturer - Type - Batch No. - Thickness - Mass per unit area - Colour - Application method - Joint details (fixing method, overlap, etc) - Trade name flame retardant - Generic type flame retardant - Amount flame retardant	- 18mm Plywood deck Note 1 - Exterior Grade, Class 3 Note 1 - 18mm - 11.7 kg/m2 - Brown - mechanically fixed to supporting structure - butt joined -No flame retardant



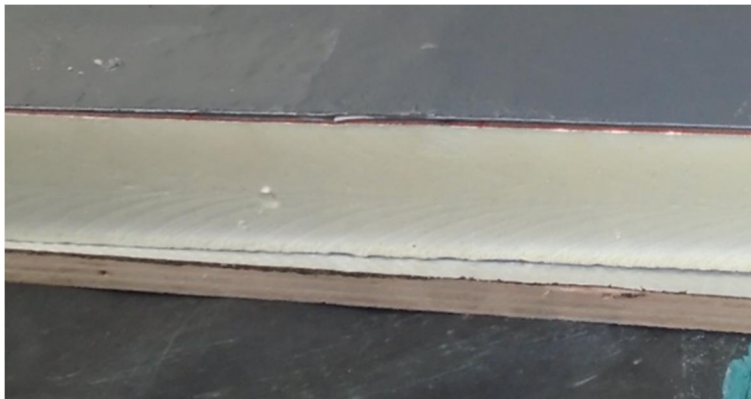
Note 1: This information was not provided by the test sponsor.

Note 2: At the request of the test sponsor this commercially sensitive information which forms part of the definition of the product tested/classified has been withheld from the report and is held on a confidential client file by BRE Global.

Appendix B – Photographs of the test specimens



Test Face



Edge View

Report Ends