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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, 200mm PIR insulation, 18mm plywood  
deck

Prepared for: Aperture  
Date: 03.11.2025  
Report number: : P130817-1003  
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Status: Final - Commercial in Confidence  
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## Prepared for:

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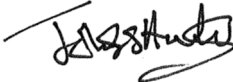
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**EXTERNAL EXPOSURE TO FIRE CLASSIFICATION (flat)**  
**REPORT OF**  
**Aperture Weathering System, 200mm PIR insulation, 18mm plywood deck**

**Classification report No.:** : P130817-1003

**Issue number:** 1

**Sponsor:** Aperture

**Product name:** Aperture Weathering System, with 200mm PIR insulation on an 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

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# 1.Introduction

This classification report defines the classification (flat) assigned to roof/roof covering 'Aperture Weathering System, with 200mm 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, 200mm PIR insulation, 18mm plywood deck                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Place of manufacture                                          | See note 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Sample description (as provided by test sponsor/manufacturer) | Roof Waterproofing system<br>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.<br>Off-white rigid insulation foam with foil facings, printed with the logo "IKO Enertherm". Thickness 60mm.<br>Off-white rigid insulation foam with foil facings, printed with the logo "IKO Enertherm". Thickness 140mm.<br>Foil AVCL layer with a black bitumen type underside, thickness <1mm.<br>Plywood deck, thickness 18mm.<br>Loose laid system<br>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/m³)                                                     | 117.5                                              |
| Mean sample thickness (mm)                                                      | 221                                                |
| Mean sample mass per unit area (kg/m²)                                          | 25.97                                              |
| Sample receipt date                                                             | 22 July 2025                                       |
| Test face                                                                       | Grey coated face                                   |
| Test format                                                                     | The test was carried out in the flat (0°) position |
| Date of test                                                                    | 03 September 2025                                  |
| Purchase order                                                                  | -                                                  |
| Test operator                                                                   | P Potter                                           |

### 3.Reports in support of classification

| Name of Laboratory | Name of sponsor | Test report ref. no. | Test method              |
|--------------------|-----------------|----------------------|--------------------------|
| BRE Global         | Aperture        | P130817-1002         | 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<br>B <sub>ROOF</sub> (t4) | Class<br>C <sub>ROOF</sub> (t4) | Class<br>D <sub>ROOF</sub> (t4) | Class<br>E <sub>ROOF</sub> (t4) |              | Class<br>B <sub>ROOF</sub> (t4) | Class<br>C <sub>ROOF</sub> (t4) | Class<br>D <sub>ROOF</sub> (t4) | Class<br>E <sub>ROOF</sub> (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<br>B <sub>ROOF</sub> (t4) | Class<br>C <sub>ROOF</sub> (t4) | Class<br>D <sub>ROOF</sub> (t4) | Class<br>E <sub>ROOF</sub> (t4) | Specimen<br>1 | Specimen<br>2 | Specimen<br>3 | Mean*    | Class<br>B <sub>ROOF</sub> (t4) | Class<br>C <sub>ROOF</sub> (t4) | Class<br>D <sub>ROOF</sub> (t4) | Class<br>E <sub>ROOF</sub> (t4) |
| Penetration time                                                                                                                         | ≥ 60 min                        | < 60 min<br>≥ 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, with 200mm PIR insulation on an 18mm Plywood deck', as described in Section 2 above and Appendix A, in relation to its external fire performance is classified:

$B_{ROOF}(t4)$

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)                                                         |                                                                                                                                                                                                                                                                                                                                                                                                           | 220mm                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Mass per unit area (overall value for the roof structure tested)                                           |                                                                                                                                                                                                                                                                                                                                                                                                           | 25.8 kg/m <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 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)                                                                                        | <ul style="list-style-type: none"> <li>- Name/reference</li> <li>- Manufacturer</li> <li>- Type</li> <li>- Batch no.</li> <li>- Thickness</li> <li>- Mass per unit area</li> <li>- Colour</li> <li>- Application method</li> <li>- Joint details (fixing method, overlap, etc)</li> <li>- Trade name flame retardant</li> <li>- Generic type flame retardant</li> <li>- Amount flame retardant</li> </ul> | <ul style="list-style-type: none"> <li>- Aperture Weathering System</li> <li>- Aperture</li> <li>Note 1</li> <li>Note 1</li> <li>Note 1</li> <li>- 1.5 l/m<sup>2</sup></li> <li>-Slate Grey</li> <li>- Aperture weathering system applied at 0.5 l/m<sup>2</sup>.</li> <li>Aperture regular glass fibre mat and Aperture weathering system applied at a rate of 1 l/m<sup>2</sup></li> <li>- No flame retardant</li> <li>-</li> <li>-</li> </ul> |

|                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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<br>- Manufacturer<br>- Type<br>- Batch No.<br>- Thickness<br>- Mass per unit area<br>- Colour<br>- Application method<br>- Joint details (fixing method, overlap, etc)<br>- Trade name flame retardant<br>- Generic type flame retardant<br>- Amount flame retardant                               | - Plastisol coated metal<br>- ArcelorMittal<br>- Galvanised steel with plastisol coating<br>Note 1<br>- 0.7mm<br>- 5.5 kg/m2<br>- Goosewing grey<br>- mechanically fixed<br>- butt joint<br><br>-No flame retardant |
| Layer 3 - Name/reference<br>- Manufacturer<br>- Type<br>- Batch No.<br>- Thickness<br>- Mass per unit area<br>- Colour<br>- Application method<br>- Joint details (fixing method, overlap, etc)<br>- Trade name flame retardant<br>- Generic type flame retardant<br>- Amount flame retardant                               | - PIR insulation<br>- IKO<br>- IKO Enertherm Alu<br>Note 1<br>- 200mm<br>- 6.4 kg/m2<br>- Silver<br>- mechanically fixed<br>- 50mm overlap<br><br>-No fire retardant                                                |
| Layer 4 - Name/reference<br>(eg "deck" or "substrate")<br>- Manufacturer<br>- Type<br>- Batch No.<br>- Thickness<br>- Mass per unit area<br>- Colour<br>- Application method<br>- Joint details (fixing method, overlap, etc)<br>- Trade name flame retardant<br>- Generic type flame retardant<br>- Amount flame retardant | - Vapour Barrier<br>- Carlisle Construction Material GMBH<br>- Alutrix 600<br>Note 1<br>- 0.6mm<br>- 700g/m2<br>- Grey<br>- Self adhesive with FG35 Primer<br>- Overlap of 50mm<br><br>-No flame retardant          |
| Layer 5 - Name/reference<br>(eg "deck" or "substrate")<br>- Manufacturer<br>- Type<br>- Batch No.<br>- Thickness<br>- Mass per unit area<br>- Colour<br>- Application method<br>- Joint details (fixing method, overlap, etc)<br>- Trade name flame retardant<br>- Generic type flame retardant<br>- Amount flame retardant | - 18mm Plywood deck<br>Note 1<br>- Exterior Grade, Class 3<br>Note 1<br>- 18mm<br>- 11.7 kg/m2<br>- Brown<br>- mechanically fixed to supporting structure<br>- butt joined<br><br>-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 Face

Report Ends