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**Agrément Certificate**

**99/3622**

Product Sheet 2 Issue 7

### PERMO ROOF TILE UNDERLAYS

### PERMO ULTRA 145 MEMBRANES

### FOR USE IN COLD VENTILATED AND WARM NON-VENTILATED PITCHED ROOF SYSTEMS

This Agrément Certificate Product Sheet<sup>(1)</sup> relates to Permo Ultra 145 Membranes, flexible, vapour permeable reinforced polyolefin laminated membranes for use in cold ventilated and warm non-ventilated pitched roof systems.

(1) Hereinafter referred to as 'Certificate'.

#### CERTIFICATION INCLUDES:

- factors relating to compliance with Building Regulations where applicable
- factors relating to additional non-regulatory information where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production †
- formal three-yearly review †.

#### KEY FACTORS ASSESSED

**Weathertightness** — as part of a complete roof, the products will resist the passage of water and wind-blown rain and dust into the interior of the building (see section 6).

**Condensation** — the products are low water vapour resistance (Type LR) underlays and can be used as part of cold ventilated and warm non-ventilated roof systems (see section 7).

**Wind loading** — when installed on appropriately spaced battens, the products' physical properties are adequate to resist the wind loads imposed on the underlay. The products will reduce the wind uplift forces acting on the roof covering (see section 8).

**Strength** — the products have adequate strength to resist the loads associated with installation of the roof (see section 9).

**Properties in relation to fire** — the products are classified as Class E, in accordance with EN 13501-1 : 2007 and their use is restricted in some cases by the national Building Regulations (see section 10).

**Durability** — under the normal conditions found in a roof space, the products will have a service life comparable to traditional roof tile underlays (see section 12).

The BBA has awarded this Certificate to the company named above for the products described herein. These products have been assessed by the BBA as being fit for their intended use provided they are installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of Seventh issue: 18 November 2022

Originally certificated on 15 May 2000

Certificate amended on 4 May 2023 to update name of membranes.

Hardy Giesler  
Chief Executive Officer

The BBA is a UKAS accredited Inspection Body (No.4345).

This certificate has been amended on 4 May 2023 as part of a transition of The BBA Agrément Certificate scheme delivered under the BBA's ISO/IEC 17020 accreditation. Sections marked with the symbol † are not issued under accreditation.

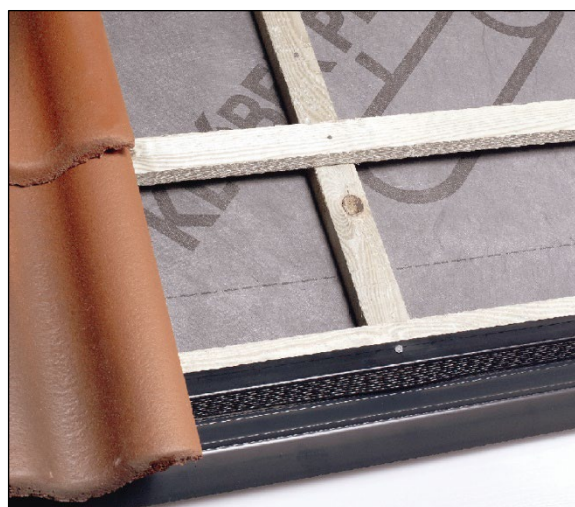
Readers MUST check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly.

#### British Board of Agrément

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## Regulations

In the opinion of the BBA, Permo Ultra 145 Membranes for use in cold ventilated and warm non-ventilated pitched roof systems, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations (the presence of a UK map indicates that the subject is related to the Building Regulations in the region or regions of the UK depicted):



### The Building Regulations 2010 (England and Wales) (as amended)

|                     |              |   |
|---------------------|--------------|---|
| <b>Requirement:</b> | <b>B3(4)</b> | <b>Internal fire spread</b>   |
| Comment:            |              | The products can contribute to satisfying this Requirement. See section 10.1 of this Certificate.                       |
| <b>Requirement:</b> | <b>B4(1)</b> | <b>External fire spread</b>   |
| Comment:            |              | The products are restricted by this Requirement, in some circumstances. See sections 10.1 and 10.2 of this Certificate. |
| <b>Requirement:</b> | <b>C2(b)</b> | <b>Resistance to moisture</b>   |
| Comment:            |              | The products will contribute to a roof satisfying this Requirement. See section 6.1 of this Certificate.                |
| <b>Requirement:</b> | <b>C2(c)</b> | <b>Resistance to moisture</b>   |
| Comment:            |              | The products will contribute to a roof satisfying this Requirement. See section 7.1 of this Certificate.                |
| <b>Regulation:</b>  | <b>7(1)</b>  | <b>Materials and workmanship</b>  |
| Comment:            |              | The products are acceptable. See section 12 and the <i>Installation</i> part of this Certificate.                       |



### The Building (Scotland) Regulations 2004 (as amended)

|                    |             |  |
|--------------------|-------------|--|
| <b>Regulation:</b> | <b>8(1)</b> | <b>Fitness and durability of materials and workmanship</b>   |
| Comment:           |             | The products can contribute to a construction satisfying this Regulation. See section 12 and the <i>Installation</i> part of this Certificate.   |
| <b>Regulation:</b> | <b>9</b>    | <b>Building standards applicable to construction</b>   |
| Standard:          | 2.4         | Cavities   |
| Comment:           |             | The products can contribute to satisfying this Standard with respect to clause 2.4.2 <sup>(1)(2)</sup> . See section 10.1 of this Certificate.   |
| Standard:          | 2.6         | Spread to neighbouring buildings   |
| Comment:           |             | The products are restricted under clauses 2.6.4 <sup>(1)(2)</sup> , 2.6.5 <sup>(1)</sup> and 2.6.6 <sup>(2)</sup> of this Standard, in some circumstances. See sections 10.1 and 10.3 of this Certificate.                                       |
| Standard:          | 2.7         | Spread on external walls   |
| Comment:           |             | The products are restricted under clause 2.7.1 <sup>(1)(2)</sup> of this Standard. See sections 10.1 and 10.3 of this Certificate.   |
| Standard:          | 3.10        | Precipitation  |
| Comment:           |             | The products will contribute to roof satisfying clauses 3.10.1 <sup>(1)(2)</sup> and 3.10.8 <sup>(1)(2)</sup> of this Standard. See section 6.1 of this Certificate.   |
| Standard:          | 3.15        | Condensation   |
| Comment:           |             | The products can contribute to limiting the risk of interstitial condensation, with reference to clauses 3.15.1 <sup>(1)(2)</sup> , 3.15.3 <sup>(1)(2)</sup> and 3.15.7 <sup>(1)(2)</sup> of this Standard. See section 7.1 of this Certificate. |

**Standard:** 7.1(a) **Statement of sustainability**  
**Comment:** The products can contribute to meeting the relevant requirements of Regulation 9, Standards 1 to 6 and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard.

**Regulation:** 12 **Building standards applicable to conversions**  
**Comment:** Comments in relation to the products under Regulation 9, Standards 1 to 6 also apply to this Regulation, with reference to clause 0.12.1<sup>(1)(2)</sup> and Schedule 6<sup>(1)(2)</sup>.

(1) Technical Handbook (Domestic).  
(2) Technical Handbook (Non-Domestic).



## The Building Regulations (Northern Ireland) 2012 (as amended)

**Regulation:** 23(1)(a)(i) **Fitness of materials and workmanship**  
**Comment:** (iii)(b)(i) The products are acceptable. See section 12 and the *Installation* part of this Certificate.

**Regulation:** 28(b) **Resistance to moisture and weather**  
**Comment:** The products will contribute to a roof satisfying this Regulation. See section 6.1 of this Certificate.

**Regulation:** 29 **Condensation**  
**Comment:** The products can enable a roof to satisfy this Regulation. See section 7.1 of this Certificate.

**Regulation:** 35(4) **Internal fire spread - structure**  
**Comment:** The products can contribute to satisfying this Regulation. See section 10.1 of this Certificate.

**Regulation:** 36(a) **External fire spread**  
**Comment:** The products are restricted, by this Regulation, in some circumstances. See sections 10.1 and 10.2 of this Certificate.

## Construction (Design and Management) Regulations 2015

## Construction (Design and Management) Regulations (Northern Ireland) 2016

Information in this Certificate may assist the client, designer (including Principal Designer) and contractor (including principal Contractor) to address their obligations under these Regulations.

See sections: 1 *Description* (1.2) and 10 *Properties in relation to fire* (10.4) of this Certificate.

## Additional Information

### NHBC Standards 2022

In the opinion of the BBA, Permo Ultra 145 Membranes for use in cold ventilated and warm non-ventilated pitched roof systems, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Chapter 7.2 *Pitched roofs*.

### CE marking

The Certificate holder has taken the responsibility of CE marking the products in accordance with harmonised European Standard EN 13859-1 : 2010.

## 1 Description

1.1 Permo Ultra 145 Membranes for use in cold ventilated and warm non-ventilated pitched roof systems are flexible, vapour permeable polyolefin laminated membranes comprising two layers of polyolefin spunbond and a film. The membranes are available with or without a double integral tape on the selvedge edges to allow sealing of overlaps.

1.2 The membranes have the nominal characteristics given in Table 1.

| Characteristic (unit)                                  | Value      |
|--|------------|
| Thickness (mm)   | 0.71       |
| Mass per unit area ( $\text{g}\cdot\text{m}^{-2}$ )    | 145        |
| Roll length (m)  | 50         |
| Roll width (m)   | 1.1, 1.5   |
| Colour   |            |
| upper  | light grey |
| lower  | white      |
| Tensile strength ( $\text{N}\cdot 50\text{ mm}^{-1}$ ) |            |
| longitudinal   | 275        |
| transverse   | 230        |
| Elongation (%)   |            |
| longitudinal   | 60         |
| transverse   | 70         |
| Tear resistance (N)                                    |            |
| longitudinal   | 180        |
| transverse   | 180        |
| Watertightness   |            |
| unaged   | W1         |
| aged <sup>(1)</sup>                                    | W1         |
| Equivalent air layer thickness ( $s_d$ )(m)            | 0.03       |

(1) Aged in accordance with EN 13859-1 : 2010, Annex C.

1.3 The Certificate holder recommends the following ancillary items for use with the products, but these materials have not been assessed by the BBA and are outside the scope of this Certificate:

- Tacto Tape — double-sided adhesive tape for sealing lap joints
- Permo TR Plus Tape — single-sided adhesive tape for sealing edges of lap joints. To be used where there is no integral tape
- Butylon — butyl adhesive tape for sealing lap joints
- Klober Underlay Support Tray — a PVC-U detail used to protect the edge of the underlay from the effect of ultraviolet light ageing, and as a run-off into gutters
- Klober Eaves Closer — a mesh-reinforced PVC-U unit acting as a barrier against destructive pests while allowing natural air movements and moisture run-off from the batten space.

## 2 Manufacture

2.1 Permo Ultra 145 Membranes for use in cold ventilated and warm non-ventilated pitched roof systems are manufactured by laminating two layers of polyolefin spunbond nonwoven membranes and a polyolefin film.

2.2 As part of the assessment and ongoing surveillance of product quality, the BBA has:

- agreed with the manufacturer the quality control procedures and product testing to be undertaken
- assessed and agreed the quality control operated over batches of incoming materials
- monitored the production process and verified that it is in accordance with the documented process
- evaluated the process for management of nonconformities
- checked that equipment has been properly tested and calibrated
- undertaken to carry out the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control being operated by the manufacturer are being maintained.

2.3 The management system of the manufacturer has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 by TÜV Hessen (Certificate 73100176).

## 3 Delivery and site handling

3.1 The membranes are delivered to site in rolls wrapped in polythene with a label bearing the Certificate holder's name and product name. A label bearing the BBA logo incorporating the number of this Certificate is applied to the outer polythene wrapper.

3.2 Rolls should be stored on their side, on a smooth, clean surface, under cover and protected from sunlight.

## Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Permo Ultra 145 Membranes for use in cold ventilated and warm non-ventilated pitched roof systems.

## Design Considerations

## 4 Use

The products are satisfactory for use as fully supported (and secured with counter battens and tiling battens) or unsupported underlays (installed by draping over rafters and securing with tiling battens), in tiled and slated warm non-ventilated and cold ventilated pitched roof systems constructed in accordance with the relevant clauses of BS 5534 : 2014.

## 5 Practicability of installation

The products are designed to be installed by competent slaters/tilers experienced with these types of products.

## 6 Weathertightness



6.1 The products are Class W1 in accordance with EN 13859-1 : 2010 and will resist the passage of water, wind-blown snow and dust into the interior of a building under all conditions to be found in a roof constructed in accordance with the relevant clauses of BS 5534 : 2014.

6.2 The products resist penetration of liquid water and consequently may be used as temporary waterproofing prior to the installation of slates or tiles. The period of such use should, however, be kept to a minimum. Further information is given in BBA Information Bulletin 2 *Permeable Roof Tile Underlay – Guide to Good Site Practice*.

## 7 Condensation



7.1 For design purposes, the products' water vapour resistance may be taken as not more than  $0.25 \text{ MN}\cdot\text{s}\cdot\text{g}^{-1}$ , and for roofs designed in accordance with BS 5534 : 2014 and BS 5250 : 2021, they may be regarded as Type LR underlays.

7.2 In common with all roofs, care must be taken in the overall design and installation to minimise the risk of water vapour coming into contact with cold parts of the construction. Factors to be considered and minimised include moisture diffusion through the ceiling, infiltration through unsealed openings/penetrations in the ceiling, and services evaporating or venting moisture into cold spaces.

7.3 The risk of condensation is highest in new-build construction during the first heating period, where there is high moisture loading owing to wet trades, such as in-situ cast concrete slabs or plaster. The risk of condensation diminishes as the building naturally dries out. See BBA Information Bulletin No 1 *Roof Tile Underlays in Cold Roofs during the Drying-out Period*.

7.4 Where the roof tile slates are tightly fitting, the batten space must be ventilated in accordance with BS 5250 : 2021.

### Horizontal ceiling and insulation (cold roof)

7.5 Roofs designed and constructed in accordance with BS 5250 : 2021 will adequately limit the risk of interstitial condensation.

7.6 Alternatively, ridge or high level ventilation<sup>(1)</sup> equivalent to a continuous opening of 5 mm may be used. If this approach is adopted, users should take additional care to limit opportunities for vapour migration and accumulation in the loft spaces, see section 7.2 of this Certificate.

(1) The provision of high-level ventilation, when using a Type LR underlay in cold pitched roofs is a requirement under *NHBC Standards 2022*, Chapter 7.2.

### Inclined ceiling and insulation (warm roof)

7.7 For roofs with an insulated inclined ceiling, ventilation above or below the underlay will not be required provided that the passage of moisture by diffusion and by convection is controlled, eg by a vapour control layer or a continuous envelope of insulation with a high vapour resistance. Ventilation may be required if specified by the tile manufacturer or where the roof covering is airtight, as described in BS 5250 : 2021.

### Partially inclined ceiling and insulation (warm and cold roof)

7.8 Where an insulated ceiling spans only part of the roofline, resulting cold roof spaces should be installed in accordance with BS 5250 : 2021 Section 4, Point 12.

## 8 Wind loading

8.1 Project design wind speeds for roofs in which the products are to be installed should be determined, and wind uplift forces calculated, by a suitably experienced and competent individual, in accordance with BS EN 1991-1-4 : 2005 and its UK National Annex.

### Unsupported

8.2 The products are satisfactory for use in unsupported systems, in the geographical Wind Zones given in Table 2, where a well-sealed ceiling, as defined in BS 9250 : 2007, Clause 3.7, is present and the roof has a ridge height of  $\leq 15 \text{ m}$ , a pitch of between  $12.5^\circ$  and  $75^\circ$ , and a site altitude of  $\leq 100 \text{ m}$ , and where topography is not significant. For all other cases, the required uplift resistance should be determined using BS 5534 : 2014 and the Certificate holder's declared wind uplift resistances in Table 3.

**Table 2 Zones of applicability of Permo Ultra 145 membranes according to BS 5534 : 2014, clause A.8**

| Product                                   | 345 mm batten gauge | 250 mm batten gauge |
|---|---------------------|---------------------|
| Permo Ultra 145 (with battened laps)      | Zone 1 to 3         | Zones 1 to 5        |
| Permo Ultra 145 (with integral tape)      | Zones 1 to 5        |                     |
| Permo Ultra 145 (with Permo TR Plus Tape) | Zones 1 to 5        |                     |

**Table 3 Declared wind uplift resistance (Pa)**

| Product                                   | 345 mm batten gauge <sup>(1)</sup> | 250 mm batten gauge <sup>(1)(2)</sup> |
|---|------------------------------------|---------------------------------------|
| Permo Ultra 145 (with battened laps)      | 1217                               | 2542                                  |
| Permo Ultra 145 (with integral tape)      | 2401                               | —                                     |
| Permo Ultra 145 (with Permo TR Plus Tape) | 1884                               | —                                     |

(1) Mean of test results.

(2) Underlays with a wind uplift resistance at a 250 mm batten gauge that satisfy the minimum design wind pressure of 820 Pa for Zone 1 are deemed to satisfy the requirements for use at 100 mm batten gauge in all Wind Zones.

## Supported

8.3 The products, when fully supported, have adequate resistance to wind uplift forces.

8.4 The products may be used at any batten gauge in all Wind Zones when laid over nominally airtight timber based sarking (type 3 particleboard, type 3 OSB or type 2 plywood) and insulation for warm-roof design. They may also be used in applications where slates are nailed directly onto sarking boards.

8.5 Timber sarking, such as square-edged butt jointed planks, are not considered to be airtight and the underlay is treated as unsupported.

## 9 Strength

The products will resist the normal loads associated with installation of the roof.

## 10 Properties in relation to fire



10.1 The products are classified as Class E<sup>(1)</sup> in accordance with EN 13501-1 : 2007.

(1) Report no H.K 094e/15 issued by FIW München. A copy of the report is available from the Certificate holder.



10.2 In England, Wales and Northern Ireland, the products, when used in pitches of greater than 70°, should not be used on buildings that have a storey at least 18 m above ground level and which contain: one or more dwellings, an institution, a room for residential purposes (excluding any room in a hostel, hotel or boarding house), student accommodation, care homes, sheltered housing, hospitals or dormitories in boarding schools and, additionally in Northern Ireland, nursing homes and places of lawful detention.



10.3 In Scotland, the products, when used in pitches of greater than 70°, excluding upstands, should not be used on domestic or shared residential buildings that have a storey of more than 11 m above ground level or are less than 1 m from a boundary.

10.4 When the products are used unsupported, there is a risk that fire can spread if the materials are accidentally ignited during maintenance works, eg by a roofer's or plumber's torch. As with all types of underlay, care should be taken during building and maintenance to avoid material being ignited.

10.5 When the products are used in a fully supported situation, the reaction to fire will primarily be determined by the support.

## 11 Maintenance

As the products are confined within the roof system and have suitable durability (see section 12), maintenance is not required. However, any damage occurring before enclosure must be repaired (see section 16).

## 12 Durability



The products will be virtually unaffected by normal conditions found in a roof space and will have a service life comparable to that of traditional roof tile underlays, provided they are not exposed to sunlight for long periods (see section 14.4). Advice regarding exposure can be obtained from the Certificate holder.

## 13 Reuse and recyclability

The products contain polyolefin, which can be recycled.

## Installation

### 14 General

14.1 Permo Ultra 145 Membranes for use in cold ventilated and warm non-ventilated pitched roof systems must be installed and fixed in accordance with the Certificate holder's instructions, the provisions of this Certificate and the relevant recommendations of BS 5534 : 2014, BS 8000-0: 2014 and BS 8000-6 : 2013. Installation can be carried out under all conditions normal to roofing work.

14.2 The products are installed with the coloured or printed side uppermost and lapped to shed water out and down the slope.

14.3 Overlaps must be provided with the minimum dimensions given in Table 4. Vertical laps must be staggered minimum of 300 mm and detailed to occur along the rafter lines. All horizontal laps can be taped and sealed using a double-sided tape, if required.

Table 4 Minimum overlaps

| Roof pitch (°) | Horizontal laps (mm) |                 | Vertical laps (mm) |
|----------------|----------------------|-----------------|--------------------|
|                | Not fully supported  | Fully supported |                    |
| 12.5 <15       | 225                  | 150             | 300                |
| >15            | 150                  | 100             | 300                |

14.4 Where possible, eaves guards should be used to protect the products from sunlight and to direct water into the gutter. Klobber Underlay Support Tray is recommended for this purpose.

### 15 Procedure

#### Unsupported

15.1 The products, when installed as part of an unsupported system, are fixed in the traditional method for roof tile underlays, ie draped between the rafters.

#### Fully supported

15.2 The products must be used over suitable timber-based sarking (type 3 particleboards, type 3 OSB or type 2 plywood) either with continuous insulation or insulation placed between the rafters (warm roofs).

15.3 The products are secured to the support with counter battens at least 25 mm thick to create drainage and vapour dispersal space<sup>(1)</sup> between the products and the tiles, or when using timber sarking, the traditional Scottish practice is employed, with the tiles or slates fixed directly into the boards.

(1) This space must be ventilated in accordance with BS 5250 : 2021 when using tight-fitting roof coverings.



15.4 The counterbattens are fixed with corrosion-resistant staples at a maximum of 300 mm centres coinciding with the rafters. Tiling battens are secured to the counterbattens and rafters with appropriate fixings.

15.5 Care must be taken to minimise the risk of interstitial condensation as described in section 7, particularly for timber sarking which may be below the dew-point for extended periods during winter months.

## 16 Repair

Damage to the products can be repaired prior to the installation of slates or tiles by replacing the damaged areas, or by patching and sealing correctly in accordance with the Certificate holder's instructions. Care should be taken to ensure that the watertightness of the roof is maintained.

## 17 Finishing

17.1 Detailing of abutments, verges and hips must be in accordance with the Certificate holder's instructions. Ingress of moisture to the roof space should be restricted by sealing around pipes and other penetrations and details.

17.2 Tiling and slating must be carried out in accordance with the relevant clauses of BS 5534 : 2014, BS 8000-0 : 2014 and BS 8000-6 : 2013, and the tile/slate manufacturer's instructions, especially when using tightly jointed slates or tiles.

## Technical Investigations

## 18 Tests

18.1 An assessment was made of data to EN 13859-1 : 2010 in relation to:

- tensile strength and elongation
- resistance to tear (nail shank)
- straightness
- resistance to water penetration
- resistance to artificial ageing
- water vapour transmission
- low temperature flexibility.

18.2 Tests were carried out to determine:

- resistance to streaming water
- burst strength
- slip resistance
- resistance to wind loads

in order to assess:

- safety of installers
- ability of the underlay to resist the passage of running water/rain
- properties when installed, intended to simulate the effects of wind suction on flexible underlay.

## 19 Investigations

19.1 The manufacturing process was evaluated, including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.

19.2 The condensation risk in warm roof constructions, and specifically those containing sarking boards, incorporating the products was assessed.

## Bibliography

BS 5250 : 2021 *Management of moisture in buildings — Code of practice*

BS 5534 : 2014 + A2 : 2018 *Slating and tiling for pitched roofs and vertical cladding — Code of practice*

BS 8000 – 0 : 2014 *Workmanship on construction sites – Introduction and general principles*

BS 8000-6 : 2013 *Workmanship on building sites — Code of practice for slating and tiling of roofs and walls*

BS 9250 : 2007 *Code of practice for design of the airtightness of ceilings in pitches roofs*

BS EN 1991-1-4 : 2005 + A1 : 2010 *Eurocode 1: Actions on structures — General actions — Wind actions*

NA to BS EN 1991-1-4 : 2005 + A1 : 2010 *UK National Annex to Eurocode 1: Actions on structures — General actions — Wind actions*

EN 13501-1 : 2007 + A1 : 2009 *Fire classification of construction products and building elements — Classification using test data from reaction to fire tests*

EN 13859-1 : 2010 *Flexible sheets for waterproofing — Definitions and characteristics of underlays — Underlays for discontinuous roofing*

EN ISO 9001 : 2015 *Quality management systems — Requirements*

## Conditions of Certificate

### Conditions

1 This Certificate:

- relates only to the product that is named and described on the front page
- is issued only to the company, firm, organisation or person named on the front page – no other company, firm, organisation or person may hold or claim that this Certificate has been issued to them
- is valid only within the UK
- has to be read, considered and used as a whole document – it may be misleading and will be incomplete to be selective
- is copyright of the BBA
- is subject to English Law.

2 Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by the BBA at the date of issue or reissue of this Certificate.

3 This Certificate will be displayed on the BBA website, and the Certificate Holder is entitled to use the Certificate and Certificate logo, provided that the product and its manufacture and/or fabrication, including all related and relevant parts and processes thereof:

- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine
- are reviewed by the BBA as and when it considers appropriate.

4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.

5 In issuing this Certificate the BBA is not responsible and is excluded from any liability to any company, firm, organisation or person, for any matters arising directly or indirectly from:

- the presence or absence of any patent, intellectual property or similar rights subsisting in the product or any other product
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product
- actual installations of the product, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to UKCA, UKNI or CE marking.

6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product which is contained or referred to in this Certificate is the minimum required to be met when the product is manufactured, supplied, installed, used, maintained and removed. It does not purport in any way to restate the requirements of the Health and Safety at Work etc. Act 1974, or of any other statutory, common law or other duty which may exist at the date of issue or reissue of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care.

**British Board of Agrément**

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