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Agrément Certificate

25/7479

Product Sheet 1 Issue 1

PERMAVENT BREATHER MEMBRANES

FOR USE IN WARM NON-VENTILATED AND COLD VENTILATED ROOFS

This Agrément Certificate Product Sheet⁽¹⁾ relates to Permavent Breather Membranes for use in warm non-ventilated and cold ventilated roofs up to 70° pitch, in domestic and non-domestic buildings.

(1) Hereinafter referred to as 'Certificate'.

The assessment includes

Product factors:

- compliance with Building Regulations
- compliance with additional regulatory or non-regulatory information where applicable
- evaluation against technical specifications
- assessment criteria and technical investigations
- uses and design considerations

Process factors:

- compliance with Scheme requirements
- installation, delivery, handling and storage
- production and quality controls
- maintenance and repair

Ongoing contractual Scheme elements†:

- regular assessment of production
- formal 3-yearly review



KEY FACTORS ASSESSED

- Section 1. Mechanical resistance and stability
- Section 2. Safety in case of fire
- Section 3. Hygiene, health and the environment
- Section 4. Safety and accessibility in use
- Section 5. Protection against noise
- Section 6. Energy economy and heat retention
- Section 7. Sustainable use of natural resources
- Section 8. Durability

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 issue: 3 December 2025

Hardy Giesler
Chief Executive Officer

This BBA Agrément Certificate is issued under the BBA's Inspection Body accreditation to ISO/IEC 17020. Sections marked with † are not issued under accreditation.

The BBA is a UKAS accredited Inspection Body (No. 4345), Certification Body (No. 0113) and Testing Laboratory (No. 0357).

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

The Certificate should be read in full as it may be misleading to read clauses in isolation.

Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.

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SUMMARY OF ASSESSMENT AND COMPLIANCE

This section provides a summary of the assessment conclusions; readers should refer to the later sections of this Certificate for information about the assessments carried out.

Compliance with Regulations

Having assessed the key factors, the opinion of the BBA is that Permavent Breather Membranes for use in warm non-ventilated and cold ventilated roofs, 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 Building Regulations 2010 (England and Wales) (as amended)

Requirement:	B3(4)	Internal fire spread (structure)
Comment:		The products can contribute to satisfying this Requirement. See section 2 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		The products will contribute to satisfying this Requirement. See section 3 of this Certificate.
Requirement:	C2(c)	Resistance to moisture
Comment:		The products can contribute to satisfying this Requirement. See section 3 of this Certificate.
Regulation:	7(1)	Materials and workmanship
Comment:		The products are acceptable. See sections 8 and 9 of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)	Fitness and durability of materials and workmanship
Comment:		The products can contribute to satisfying this Regulation. See sections 8 and 9 of this Certificate.
Regulation:	9	Building standards – construction
Standard:	2.4	Cavities
Comment:		The products can contribute to satisfying this Standard, with reference to clause 2.4.2 ⁽¹⁾⁽²⁾ . See section 2 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The products will contribute to satisfying this Standard, with reference to clauses 3.10.1 ⁽¹⁾⁽²⁾ and 3.10.8 ⁽¹⁾⁽²⁾ . See section 3 of this Certificate.
Standard:	3.15	Condensation
Comment:		The products can contribute to satisfying this Standard, with reference to clauses 3.15.1 ⁽¹⁾⁽²⁾ , 3.15.3 ⁽¹⁾⁽²⁾ and 3.15.7 ⁽¹⁾⁽²⁾ . See section 3 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The products can contribute to satisfying the relevant requirements of Regulation 9, Standards 1 to 6, and therefore will contribute to a construction meeting at least a bronze level of sustainability as defined in this Standard.
Regulation:	12	Building standards – conversion
Comment:		All comments given for the products under Regulation 9, Standards 1 to 6, also apply to this Regulation, with reference to clause 0.12.1 ⁽¹⁾⁽²⁾ and Schedule 6 ⁽¹⁾⁽²⁾ .

(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 sections 8 and 9 of this Certificate.
Regulation:	28(b)	Resistance to moisture and weather
Comment:		The products will contribute to satisfying this Regulation. See section 3 of this Certificate.
Regulation:	29	Condensation
Comment:		The products can contribute to satisfying this Regulation. See section 3 of this Certificate.
Regulation:	35(4)	Internal fire spread – structure
Comment:		The products can contribute to satisfying this Regulation. See section 2 of this Certificate.

Additional Information

NHBC Standards 2025

In the opinion of the BBA, Permavent Breather Membranes for use in warm non-ventilated and cold ventilated roofs, 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*.

The opinion of the BBA does not amount to any endorsement or approval by NHBC and does not in any way guarantee that NHBC will approve such product / system as compliant with the NHBC Technical Requirements and Standards.

Fulfilment of Requirements

The BBA has judged Permavent Breather Membranes for use in warm non-ventilated and cold ventilated roofs to be satisfactory for use as described in this Certificate. The products have been assessed for use in roofs of up to 70° pitch, in domestic and non-domestic buildings.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the products under assessment. Permavent Breather Membranes for use in warm non-ventilated and cold ventilated roofs are three-layer polypropylene composites. The membranes are available with or without an integral self-adhesive tape to allow sealing of overlaps.

The products have the nominal characteristics given in Table 1.

Table 1 Nominal characteristics

Characteristic (unit)	Permavent Breather Membranes				
	Eco	Black	Graphite	Max	Red
Thickness (mm)	0.40	0.45	0.50	0.60	0.70
Mass per unit area (g·m ⁻²)	100	120	130	150	160
Roll length (m) ⁽¹⁾	50	50	50	50	50
Roll width (m) ⁽¹⁾	1.0 and 1.5	1.0 and 1.5	1.0 and 1.5	1.0 and 1.5	1.0 and 1.5
Colour					
upper face	various	various	various	various	various
lower face	various	various	various	various	various

(1) Other lengths/widths are available.

Ancillary Items

The Certificate holder recommends the use of a suitable single-sided tape for sealing the overlaps, but this has not been assessed by the BBA and is outside the scope of this Certificate.

Applications

The products are intended 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 cold ventilated and warm non-ventilated pitched roof systems, constructed in accordance with the relevant clauses of BS 5534 : 2014.

In warm roofs, 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 with insulation placed between the rafters.

Definitions for products and applications inspected

Pitched roofs are defined for the purpose of this Certificate as those having a fall in excess of 10° and a maximum pitch of 70°.

Product assessment – key factors

The products were assessed for the following key factors, and the outcome of the assessments is shown below. Conclusions relating to the Building Regulations apply to the whole of the UK unless otherwise stated.

1 Mechanical resistance and stability

Data were assessed for the following characteristics.

1.1 Resistance to wind uplift

1.1.1 Results of resistance to wind uplift tests to BS 5534 : 2014 Annex A, and consequent zones of applicability, are given in Tables 2 and 3 of this Certificate.

Table 2 Declared wind uplift resistance (Pa)

Product	≤ 250 mm batten gauge with battened lap ⁽¹⁾⁽²⁾	≤ 345 mm batten gauge with battened lap ⁽¹⁾	≤ 250 mm batten gauge with integral taped lap ⁽¹⁾⁽²⁾	≤ 345 mm batten gauge with integral taped lap ⁽¹⁾	≤ 345 mm batten gauge with single-sided taped lap ⁽¹⁾
Permavent Eco	1510	854	—	1828	1828
Permavent Black	2698	1132	—	2556	2556
Permavent Graphite	1914	1196	≤ 3790	1832	1887
Permavent Max	2698	1664	—	2691	2691
Permavent Red	—	1716	—	2826	2826

(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.

Table 3 Zones of applicability of Permavent underlays according to BS 5534 : 2014, clause A.8, with battened, integral and taped laps

Product	≤ 250 mm batten gauge with battened laps	≤ 345 mm batten gauge with battened laps	≤ 250 mm batten gauge with integral taped laps	≤ 345 mm batten gauge with integral taped laps	≤ 345 mm batten gauge with single-sided taped laps
Permavent Eco	Zones 1 to 5	Zone 1	Zones 1 to 5	Zones 1 to 5	Zones 1 to 5
Permavent Black	Zones 1 to 5	Zones 1 to 2	Zones 1 to 5	Zones 1 to 5	Zones 1 to 5
Permavent Graphite	Zones 1 to 5	Zones 1 to 3	Zones 1 to 5	Zones 1 to 5	Zones 1 to 5
Permavent Max	Zones 1 to 5	Zones 1 to 5	Zones 1 to 5	Zones 1 to 5	Zones 1 to 5
Permavent Red	Zones 1 to 5	Zones 1 to 5	Zones 1 to 5	Zones 1 to 5	Zones 1 to 5

1.1.2 On the basis of data assessed, the products are satisfactory for use in unsupported systems, in the geographical Wind Zones given in Table 3 of this Certificate, where a well-sealed ceiling, as defined in BS 9250 : 2007, Clause 3.7, is present and the roof has a ridge height ≤ 15 m, a pitch between 12.5 and 75° and a site altitude ≤ 100 m, and where topography is not significant. For all other cases, the required uplift resistance must be determined using BS 5534 : 2014.

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

1.1.4 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.

1.1.5 Timber sarking, such as square-edged butt-jointed planks, is not considered to be airtight and the underlay is treated as unsupported. Counter battens must be used in fully supported applications.

1.2 Resistance to mechanical damage

1.2.1 Results of resistance to mechanical damage tests are given in Table 4.

Table 4 Resistance to mechanical damage

Product assessed	Assessment method	Requirement	Result	
Permavent Eco Permavent Graphite	Nail tear to STN EN 12310-1 : 2000 with modifications as per STN EN 13859-1 : 2010 Annex B Longitudinal direction Transverse direction	$\geq 50 \text{ N}$	Pass Pass	
Permavent Eco Permavent Black Permavent Max Permavent Red	Mullen burst strength to BS 3137 : 1972 (1995)	Value achieved	Face 1 330 kN·m ⁻² 392 kN·m ⁻² 429 kN·m ⁻² 499 kN·m ⁻²	Face 2 326 kN·m ⁻² 382 kN·m ⁻² 429 kN·m ⁻² 502 kN·m ⁻²
Permavent Eco Permavent Black Permavent Graphite Permavent Max Permavent Red	Tensile strength to STN EN 12311-1 : 2002 with modifications as per STN EN 13859-1 : 2010 Annex A longitudinal direction	Declared values 260 N·(50 mm) ⁻¹ 280 N·(50 mm) ⁻¹ 245 N·(50 mm) ⁻¹ 300 N·(50 mm) ⁻¹ 350 N·(50 mm) ⁻¹	Pass Pass Pass Pass Pass	
Permavent Eco Permavent Black Permavent Graphite Permavent Max Permavent Red	transverse direction	170 N·(50 mm) ⁻¹ 155 N·(50 mm) ⁻¹ 175 N·(50 mm) ⁻¹ 200 N·(50 mm) ⁻¹ 240 N·(50 mm) ⁻¹	Pass Pass Pass Pass Pass	
Permavent Eco Permavent Black Permavent Graphite Permavent Max Permavent Red	Elongation to STN EN 12311-1 : 2002 with modifications as per STN EN 13859-1 : 2010 Annex A Control – longitudinal direction	Values achieved	60% 70% 60% 60% 70%	
Permavent Eco Permavent Black Permavent Graphite Permavent Max Permavent Red	transverse direction		70% 60% 60% 70% 70%	

1.2.2 On the basis of data assessed, the products have adequate strength to resist the loads associated with the installation of the roof.

2 Safety in case of fire

Data were assessed for the following characteristics.

2.1 Reaction to fire

2.1.1 Results of reaction to fire tests are given in Table 5.

Table 5 Reaction to fire

Product assessed	Assessment method	Requirement	Result
Permavent Eco Permavent Red	Reaction to fire – classified in accordance with EN 13501-1 : 2018	Classification achieved	E ⁽¹⁾⁽²⁾
Permavent Black Permavent Max	Reaction to fire – classified in accordance with EN 13501-1 : 2007		E ⁽¹⁾
Permavent Graphite	Reaction to fire – classified in accordance with PN EN 13501-1 : 2019		E ⁽¹⁾

- (1) This classification is valid for the following end-use applications: the edges of the product must be protected against flame attack; without air-gap – cavity between product and substrate; with substrate – wood substrates with density min 338 kg·m⁻³ used in practice and any substrate of classes A1 and A2-s1, d0; underlay sheet mechanically fastened by using commercial steel staples.
- (2) Classification is also valid for the following product parameters: change in thickness is allowed within production parameters; change in product composition is not allowed; and change in mass per unit area is allowed within production tolerances.

2.1.2 Designers must refer to the relevant national Building Regulations and guidance for detailed conditions of use, particularly in respect of requirements for substrate fire performance, cavity barriers, service penetrations and combustibility limitations for other materials and components used in the overall construction.

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

2.1.4 When the products are used with timber sarking, such as square-edged butt-jointed planks, the reaction to fire will be primarily determined by the sarking.

3 Hygiene, health and the environment

Data were assessed for the following characteristics.

3.1 Weathertightness

3.1.1 Results of weathertightness tests are given in Table 6.

Table 6 Weathertightness

Product assessed	Assessment method	Requirement	Result
Permavent Eco Permavent Black Permavent Max Permavent Red	Water resistance to STN EN 1928 : 2001 2 kPa for 2 hours	No leakage	Pass
Permavent Eco	Resistance to streaming water to MOAT 69 : 4.2.2 : 2004 Unsupported Supported	No traces of dampness or formation of drips on the underside of the underlay	Pass Pass
Permavent Eco Permavent Black Permavent Max Permavent Red	Hydrostatic head to BS EN 20811 : 1992	Value achieved	>200 mm >200 mm >200 mm >200 mm

3.1.2 On the basis of data assessed, the products can be used unsupported and supported without affecting their water resistance.

3.1.3 The products are Class W1 in accordance with BS EN 13859-1 : 2014 and will resist the passage of water and 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.

3.1.4 The products resist penetration of liquid water and consequently may be used as temporary weatherproofing prior to the installation of slates or tiles. The period of such use must, however, be kept to a minimum as given in BBA Information Bulletin No. 2 *Permeable Roof Tile Underlay – Guide to Good Site Practice*.

3.2 Condensation

3.2.1 Results of water vapour resistance tests are given in Table 7.

Table 7 Water vapour resistance⁽¹⁾

Product assessed	Assessment method	Requirement	Result
Permavent Eco	Water vapour diffusion	$s_d \leq 0.02 \text{ m}$	Pass
Permavent Black	equivalent air layer thickness (s_d) to		Pass
Permavent Graphite	STN EN ISO 12572 : 2003		Pass
Permavent Max			Pass
Permavent Red			Pass

(1) Water vapour resistance, in $\text{MN}\cdot\text{s}\cdot\text{g}^{-1}$, may be taken as $5 \times s_d$ value.

3.2.2 A condensation risk analysis was carried out based on the result given in Table 7 and satisfactory conclusions were drawn.

3.2.3 For roofs designed in accordance with BS 5534 : 2014 and BS 5250 : 2021, the products may be regarded as Type LR underlays.

4 Safety and accessibility in use

Data were assessed for the following characteristics.

4.1 Slip resistance

4.1.1 Results of slip resistance tests are given in Table 8.

Table 8 Slip resistance

Product assessed	Assessment method	Requirement	Result
Permavent Eco	Slip resistance to BBA Internal Test Specification T1/10 dry	Mean pendulum test value (PTV) ≥ 36	
	Longitudinal direction		Pass
	Transverse direction		Pass
	wet		
	Longitudinal direction		Pass
	Transverse direction		Pass

4.1.2 On the basis of data assessed, the products have a high slip-resistant surface for increased safety during the installation of the covering.

5 Protection against noise

Not applicable.

6 Energy economy and heat retention

Not applicable.

7 Sustainable use of natural resources

The products comprise polypropylene, which can be recycled.

8 Durability

8.1 The potential mechanisms for degradation and the known performance characteristics of the materials in the products were assessed.

8.2 Specific test data were assessed as given in Table 9.

Table 9 Durability test

Product assessed	Assessment method	Requirement	Result
Permavent Eco	Dimensional stability to STN EN 1107-2 : 2002 Longitudinal direction	$\leq 2\%$	Pass
Permavent Black			Pass
Permavent Max			Pass
Permavent Red			Pass
Permavent Eco	Transverse direction		Pass
Permavent Black			Pass
Permavent Max			Pass
Permavent Red			Pass
Permavent Eco	Tensile strength to STN EN 12311-1 : 2002 with modifications as per STN EN 13859-1 : 2010 Annex A 24 hours water immersion Longitudinal direction Transverse direction	Change < 20%	
			Pass
			Pass
Permavent Eco	Aged in accordance with STN EN 13859-1 : 2010 Annex C Longitudinal direction	Change < 30%	Pass
Permavent Black			Pass
Permavent Max			Pass
Permavent Red			Pass
Permavent Eco	Transverse direction	Change < 30%	Pass
Permavent Black			Pass
Permavent Max			Pass
Permavent Red			Pass
Permavent Eco	Elongation to STN EN 12311-1 : 2002 with modifications as per STN EN 13859-1 : 2010 Annex A 24 hours water immersion Longitudinal direction Transverse direction	Value achieved	
			48%
			60%
Permavent Eco	Aged in accordance with STN EN 13859-1 : 2010 Annex C Longitudinal direction	$\geq 50\%$ of initial tested value	Pass
Permavent Black			Pass
Permavent Max			Pass
Permavent Red			Pass
Permavent Eco	Transverse direction	$\geq 50\%$ of initial tested value	Pass
Permavent Black			Pass
Permavent Max			Pass
Permavent Red			Pass
Permavent Eco	Resistance to water penetration to STN EN 1928 : 2001 (2 kPa for 2 hours) aged in accordance with STN EN 13859-1 : 2010 Annex C	No leakage	Pass
Permavent Black			Pass
Permavent Max			Pass
Permavent Red			Pass
Permavent Eco	Flexibility at low temperature to STN EN 1109 : 2002	-40°C	Pass
Permavent Black			Pass
Permavent Max			Pass
Permavent Red			Pass

8.3 Service life

8.3.1 Under normal service conditions, the products will have a life comparable to that of traditional roof tile underlays, provided they are designed, installed and maintained in accordance with this Certificate and the Certificate holder's instructions.

8.3.2 The exposure of the products prior to completion of the roof must be kept to a minimum. Advice regarding exposure must be obtained from the Certificate holder, but such advice is outside the scope of this Certificate.

PROCESS ASSESSMENT

Information provided by the Certificate holder was assessed for the following factors:

9 Design, installation, workmanship and maintenance

9.1 Design

9.1.1 The design process was assessed by the BBA, and the following requirements apply in order to satisfy the performance specified in this Certificate.

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

9.1.3 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.

9.1.4 When used in direct contact with treated timber, the advice of the Certificate holder must be sought on compatibility, but such advice is outside the scope of this Certificate.

9.1.5 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 dries out. See BBA Information Bulletin No. 1 *Roof Tile Underlays in Cold Roofs during the Drying-out Period*.

9.1.6 In horizontal ceiling and insulation (cold roof) applications, roofs that are designed and constructed in accordance with BS 5250 : 2021 will adequately limit the risk of interstitial condensation. Alternatively, ridge or high-level ventilation⁽¹⁾ equivalent to a continuous opening of 5 mm may be used. If this approach is adopted, users must take additional care to limit opportunities for vapour migration and accumulation in the loft spaces (see section 3.2.1 of this Certificate).

(1) The provisions of high-level ventilation, when using a LR underlay in cold pitched roofs, is a requirement under *NHBC Standards* 2025, Chapter 7.2.

9.1.7 For roofs with an insulated inclined ceiling (warm roof), 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 and with sealed joints. Ventilation to the batten space may be required if specified by the tile manufacturer or where the roof covering is airtight, as described in BS 5250 : 2021.

9.1.8 Where an insulated ceiling spans only part of the roof line, resulting cold roof spaces must be ventilated in accordance with BS 5250 : 2021, Section 4, Subsection 12.

9.2 Installation

9.2.1 Installation instructions provided by the Certificate holder were assessed and judged to be appropriate and adequate.

9.2.2 Installation must be carried out in accordance with this Certificate and the Certificate holder's instructions and the relevant recommendations of BS 5534 : 2014, BS 8000-0 : 2014 and BS 8000-6 : 2023. Installation can be carried out under all conditions normal to roofing work. A summary of instructions and guidance is provided in Annex A of this Certificate.

9.2.3 The products must be installed with the coloured and printed side uppermost and lapped to shed water out and down the slope.

9.2.4 Overlaps must be provided with the minimum dimensions given in Table 10. The Certificate holder's advice must be sought when using tapes for sealing overlaps, but such advice is outside the scope of this Certificate.

Table 10 Minimum overlaps

Roof pitch (°)	Horizontal lap (mm) untapped and taped		Vertical laps (mm)
	Not fully supported	Fully supported	
12.5 < 15	225	150	100
≥ 15	150	100	100

9.2.5 The products, when installed as part of an unsupported system, must be fixed using the traditional method for roof tile underlays, ie draped between the rafters.

9.2.6 When fully supported, the membrane is laid directly over a supporting layer such as rigid insulation or a suitable timber-based sarking (Type 3 particleboards, Type 3 OSB or Type 2 plywood). The membrane is secured to the support with counter battens at least 12 mm thick to create a drainage and vapour dispersal space⁽¹⁾ between the membrane and the tiles. When using the traditional Scottish practice of timber plank sarking (typically 150 mm wide with a 2 mm gap), the tiles or slates are fixed directly into the boards.

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

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

9.3 Workmanship

Practicability of installation was assessed by the BBA on the basis of the Certificate holder's information and BS 5534 : 2014. To achieve the performance described in this Certificate, the products must be installed by a competent general builder, or a contractor, experienced with these types of products.

9.4 Maintenance and repair

9.4.1 As the products are confined in a roof structure and have suitable durability, maintenance is not required.

9.4.2 Damage to the products must be repaired prior to the installation of slates or tiles by patching and sealing correctly. Care must be taken to ensure that the watertightness of the roof is maintained.

10 **Manufacture**

10.1 The production processes for the products have been assessed, and provide assurance that the quality controls are satisfactory according to the following factors:

10.1.1 The manufacturer has provided documented information on the materials, processes, testing and control factors.

10.1.2 The quality control operated over batches of incoming materials has been assessed and deemed appropriate and adequate.

10.1.3 The quality control procedures and product testing to be undertaken have been assessed and deemed appropriate and adequate.

10.1.4 The process for management of non-conformities has been assessed and deemed appropriate and adequate.

10.1.5 An audit of each production location was undertaken, and it was confirmed that the production process was in accordance with the documented process, and that equipment has been properly tested and calibrated.

† 10.2 The BBA has undertaken to review the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

11 Delivery and site handling

11.1 The Certificate holder stated that the products are delivered to site individually wrapped in polythene with a label bearing the product name, mass per unit area and the BBA logo incorporating the number of this Certificate.

11.2 Delivery and site handling must be performed in accordance with the Certificate holder's instructions and this Certificate, including:

11.2.1 Rolls must be stored flat on their sides, on smooth, clean, dry surface, under cover and protected from sunlight.

Supporting information in this Annex is relevant to the products but has not formed part of the material assessed for the 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.

UKCA marking

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

CE marking

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

Additional information on installation

A.1 Eaves guards must be used to protect the products from sunlight and to direct water into the gutter.

A.2 Detailing of abutments, verges and hips must be in accordance with the Certificate holder's instructions.

A.3 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 : 2023 and the Certificate holder's instructions, especially when using tightly jointed slates or tiles.

Bibliography

- BS 3137 : 1972 (1995) *Methods for determining the bursting strength of paper and board*
- 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 +A1; 2024 *Workmanship on construction sites — Introduction and general principles*
- BS 8000-6 : 2023 *Workmanship on construction 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 pitched 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*
- BS EN 13859-1 : 2014 *Flexible sheets for waterproofing — Definitions and characteristics of underlays — Underlays for discontinuous roofing*
- BS EN 20811 : 1992 *Determination of resistance to water penetration — Hydrostatic pressure test*
- EN 13501-1 : 2007 *Fire classification of construction products and building elements — Classification using test data from reaction to fire tests*
- EN 13501-1 : 2018 *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*
- MOAT 69 : 2004 - UEAtc *Technical Report for the Assessment of Discontinuous Roofing Underlay Systems*
- PN EN 13501-1 : 2019 *Fire classification of construction products and building elements — Part 1: Classification based on reaction to fire tests*
- STN EN 1107-2 : 2002 *Flexible sheets for waterproofing — Determination of dimensional stability — Plastic and rubber sheets for roof waterproofing*
- STN EN 1109 : 2002 *Flexible sheets for waterproofing — Bitumen sheets for waterproofing — Determination of flexibility at low temperature*
- STN EN 1928 : 2001 *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of watertightness*
- STN EN 12310-1 : 2000 *Flexible sheets for waterproofing — Determination of resistance to tearing (nail shank) — Bitumen sheets for roof waterproofing*
- STN EN 12311-1 : 2002 *Flexible sheets for waterproofing — Determination of tensile properties — Bitumen sheets for roof waterproofing*
- STN EN 13859-1 : 2010 *Flexible sheets for waterproofing — Definitions and characteristics of underlays — Underlays for discontinuous roofing*
- STN EN ISO 12572 : 2003 *Hygrothermal performance of building materials and products — Determination of water vapour transmission properties — Cup method*

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
- 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
- and any matter arising out of or in connection with it or its subject matter (including non-contractual disputes or claims) is governed by and construed in accordance with the law of England and Wales.
- the courts of England and Wales shall have exclusive jurisdiction to settle any matter arising out of or in connection with this Certificate or its subject matter (including non-contractual disputes or claims).

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:

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- 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 marking and 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.