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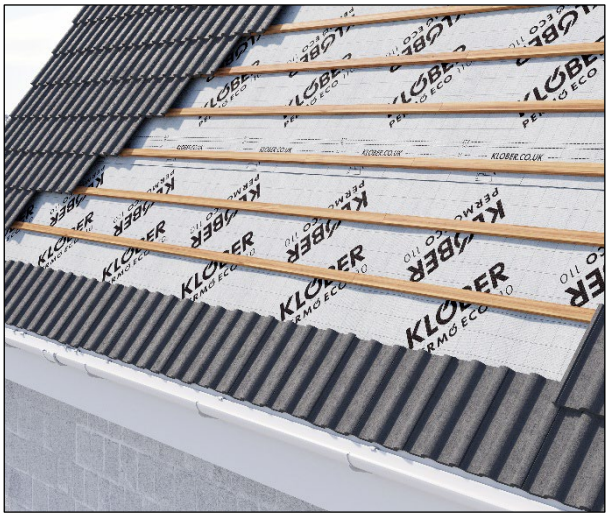
Agrément Certificate
00/3749
Product Sheet 3 Issue 6

PERMO ROOF TILE UNDERLAYS

PERMO ECO 110 AND PERMO ECO 110 SK FOR USE IN COLD NON-VENTILATED ROOFS

This Agrément Certificate Product Sheet(1) relates to Permo Eco 110 and Permo Eco 110 SK, underlays for use in cold non-ventilated roofs of up to 70° pitch in dwellings.

(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 its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of Sixth issue: 2 May 2025
Originally certified on 6 September 2005

Hardy Giesler
Chief Executive Officer

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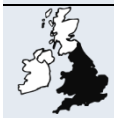
SUMMARY OF ASSESSMENT AND COMPLIANCE

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 Permo Eco 110 and Permo Eco 110 SK for use in cold non-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 can 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 a construction satisfying this Regulation. See sections 8 and 9 of this Certificate.
Regulation:	**9**	**Building standards – construction**
Comment:		Cavities The products can contribute to satisfying this Standard with respect to clause 2.4.2(1). See section 2 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The products can contribute to satisfying clauses 3.10.1(1) and 3.10.8(1) of this Standard. See section 3 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(1), 3.15.3(1) and 3.15.7(1) of this Standard. 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) and Schedule 6(1). (1) Technical Handbook (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 can 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.

Fulfilment of Requirements

The BBA has judged Permo Eco 110 and Permo Eco 110 SK for use in cold non-ventilated roofs to be satisfactory for use as described in this Certificate. The products have been assessed for use in cold non-ventilated pitched roofs up to 70° pitch in dwellings.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the products under assessment. Permo Eco 110 and Permo Eco 110 SK for use in cold non-ventilated roofs are four-layer vapour permeable underlays.

Permo Eco 110 SK has a double integral tape on the selvedge edges to allow sealing of overlaps.

The products have the nominal characteristics given in Table 1.

Table 1 Nominal characteristics

Characteristic (unit)	Value
Thickness (mm)	0.57
Mass per unit area ($g \cdot m^{-2}$)	110
Roll length (m)	50
Roll width (m)	1.1/1.5
Colour	
Upper	Light grey
Lower	Light grey

Ancillary Items

The following ancillary items are essential to use with the products and have been assessed with the products:

- Tacto — double-sided adhesive tape for sealing lap joints
- Permo TR Plus Tape — single-sided adhesive tape for sealing edges of lap joints.

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:

- 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.

Applications

The products are intended for use in dwellings in cold non-ventilated tiled or slated roofs of any conventional plan and size. Features(1) assessed include:

- duo pitched
- gable ends
- room-in-roof(2)
- mono-pitched
- verges
- dormers
- hipped
- abutments
- timber sarking planks(3)(4)(5)
- mansard
- valleys.

(1) For roofs incorporating other features, or unconventional roof geometries or construction materials, the advice of the Certificate holder must be sought, but such advice is outside the scope of this Certificate.
(2) Where a room-in-roof results in part of a pitch being insulated (ie a warm roof), design and detailing of that part of the roof should comply with the relevant guidance given the BBA Certificate 99/3622 PS3.
(3) Timber sarking planks, Scottish practice: the membrane is laid over open-jointed timber planks (nominally 150 mm wide with a 2 mm gap) and fixed with galvanized clout nails. Slates are nailed through the membrane onto the sarking without battens.
(4) Timber sarking planks, tiled roofs: counter battens of 12 mm minimum thickness must be used to provide a drainage path beneath the tiling battens. The membrane may be laid directly over the timber planks or draped over the counter battens.
(5) Sheet sarking should not be used in non-ventilated cold pitched roof situations.

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 assessment 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 wind Zones of applicability, are given in Tables 2 and 3 of this Certificate.

Table 2 Declared wind uplift resistance (Pa)

Products	≤345 mm batten gauge with battened laps[1]	≤250 mm batten gauge with battened laps[1][2]	≤345 mm batten gauge with Permo TR Plus Tape[1]
Permo Eco 110	1140	2334	1573

(1) Mean of test results.
(2) Underlays with a wind uplift resistance at a 250 mm batten gauge that satisfies 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 according to BS 5534 : 2014, clause A.8 with battened laps and laps with counter battens

Products	≤345 mm batten gauge with battened laps	≤250 mm batten gauge with battened laps	≤345 mm batten gauge with Permo TR Plus Tape
Permo Eco 110	Zones 1 to 2	Zones 1 to 5	Zones 1 to 4

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 of ≤15 m, a pitch between 12.5 and 70°, and a site altitude of ≤100 m, and where topography is not significant. For all other cases, the required uplift resistance must be determined using BS 5534 : 2014 and the Certificate holder's declared wind uplift resistances given in Table 2 of this Certificate.

Supported

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, are not considered to be airtight and the underlay is treated as unsupported.

1.2 Resistance to mechanical damage

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

Table 4 Results of mechanical damage

Product assessed	Assessment method	Requirement	Result
Permo Eco 110	Nail tear to DIN EN 13859-1 : 2005[1]	≥ 50 N	
	Longitudinal direction		Pass
	Transverse direction		Pass

(1) Tested prior to the harmonised technical specification EN 13859-1 : 2010.

1.2.2 Existing data for Mullen burst strength was assessed on the basis of a representative related product and was satisfactory.

1.2.3 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 was assessed for the following characteristics.

2.1 Reaction to fire

2.1.1 The result of a reaction to fire test is given in Table 5.

Table 5 Reaction to fire

Product assessed	Assessment method	Requirement	Result[1]
Permo Eco 110	Reaction to fire tested to BS EN ISO 11925-2 : 2010 and classified to BS EN 13501-1 : 2007	Value achieved	Classification E[2]

(1) Report no H.K 037/14, issued by FIW München. A copy of the report is available from the Certificate holder on request.
(2) The specimens were tested unsupported with no backing board.

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
Permo Eco 110	Resistance to water penetration to BS EN 1928 : 2000 2 kPa for 2 hours	No leakage	Pass

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

3.1.3 The products are classified as Class W1 in accordance with BS EN 13859-1 : 2014 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.

3.1.4 The products resist the 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. Further information is 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

Product assessed	Assessment method	Requirement	Result
Permo Eco 110	Water vapour transmission rate to BS 3177 : 1959(1)	≥ 820 $g \cdot m^{-2} \cdot day^{-1}$	Pass
Permo Eco 110	Water vapour resistance	Value achieved	0.14 $MNs \cdot g^{-1}$

(1) Tested prior to the harmonised technical specification EN 13859-1 : 2010.

3.2.2 A condensation risk analysis was carried out based on the results 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 a Type LR underlays.

4 Safety and accessibility in use

Data were assessed for the following characteristics.

4.1 Slip resistance

4.1.1 Slip resistance of the products is assessed on the basis of existing test data of a representative product.

4.1.2 On the basis of data assessed, the products have a high coefficient of friction, giving a slip-resistant surface for increased safety during 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 8 Results of durability tests

Product assessed	Assessment method	Requirement	Result
Permo Eco 110	Tensile strength to DIN EN 13859-1 : 2005(1)	Value achieved	
	Control:		
	Longitudinal direction		214 N·(50 mm)$^{-1}$
	Transverse direction		175 N·(50 mm)$^{-1}$
	Tensile strength to DIN EN 13859-1 : 2005(1)	Change < 30%	
	Heat aged at 70°C for 56 days		
	Longitudinal direction		Pass
	Transverse direction		Pass
	Elongation to DIN EN 13859-1 : 2005(1)	Value achieved	
	Unaged:		
	Longitudinal direction		73%
	Transverse direction		36%
	Elongation to DIN EN 13859-1 : 2005(1)	No significant loss	
	Heat aged at 70°C for 56 days	of properties	
	Longitudinal direction	following ageing	Pass
	Transverse direction		Pass
Permo Eco 110	Dimensional stability to DIN EN 1107-1 : 1999	≤ 2%	
	Longitudinal direction		Pass
	Transverse direction		Pass
Permo Eco 110	Resistance to water penetration to DIN EN 13859-1 : 2005	No leakage	Pass
	2 kPa for 2 hours		
	Heat aged to Annex C of EN 13859-1 : 2005		
Permo Eco 110	Low temperature flexibility to DIN EN 1109 : 1999	Value achieved	
	Longitudinal direction		≤ -20°C
	Transverse direction		≤ -20°C

(1) Tested prior to the harmonised technical specification of EN 13859-1 : 2010.

8.3 Service life

8.3.1 Under normal service conditions, the products will have a service life comparable with that of traditional roof tile underlays, provided they are not exposed to sunlight for long periods, and 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 can 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 BS EN 1991-1-4 : 2005 and its UK National Annex.

9.1.3 Designers, planners, contractors and/or installers must ensure that the roof and ceiling are constructed in accordance with the Certificate holder's instructions and the information given in this Certificate.

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 complete roof construction, ceiling boards to roof tiles, must be considered as a total system with regard to condensation risk. It is important that the products are laid in accordance with the Certificate holder's instructions and this Certificate to minimise the risk of condensation.

9.1.6 All penetrations into and out of the roof space must be properly sealed in accordance with the Certificate holder's instructions, which include the use of the Certificate holder's recommended sealing tape. In addition, such features as vent stacks and boiler flues passing through the roof space must be sealed.

9.1.7 It is essential to minimise water vapour transfer into the loft space from the dwelling below, with a well-sealed ceiling as defined in BS 9250 : 2007, Clause 3.7. Appropriate measures include:

- ventilating the dwelling below in accordance with national Building Regulations and Standards for the dispersal and rapid dilution of water vapour, particularly from rooms that may experience high humidity (such as kitchens, utility rooms and bathrooms)
- covering all water tanks in the loft space, and lagging pipework
- sealing penetrations in the ceiling and making loft hatches convection-tight by using a compressible draught seal
- ensuring that there is continuity of jointing with walls (and behind wall linings) at ceiling perimeters
- ensuring that masonry wall cavities do not interconnect with roof cavities.

9.1.8 For additional protection, the use of a vapour control layer/vapour check plasterboard must be considered.

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.

Table 10 Minimum overlaps

Roof pitch (°)	Horizontal laps (mm)		Vertical laps (mm)
	Not fully supported	Fully supported	
12.5 < 15	225	150(1)	100
> 15	150	100	100

(1) Overlap for fully supported Permo Eco 110 SK is 150 mm.

9.2.5 Vertical laps must be staggered a 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.

9.2.6 The products are to be installed by draping over rafters and securing with tiling battens or installed taut over rafters and secured with counter battens and tiling battens.

9.2.7 The products to be installed as part of an unsupported system must be fixed in the traditional method for roof tile underlays, ie laid parallel to the eaves and draped between the rafters, with the coloured and printed side uppermost.

9.2.8 When laid horizontally, the products must be pulled taut and nailed to hold securely in position. Counter battens (minimum thickness 12 mm) are then fixed to the rafter. Counter battens must be at least 12 mm thick to create drainage and vapour dispersal space(1) between the membrane and the tiles, but consideration must be given to the minimum fixing requirements of the batten nails.

(1) Any space below tight fitting tiles needs ventilating in accordance with BS 5250 : 2021 when using tight-fitting roof coverings.

9.2.9 For fully supported roofs (traditional Scottish practice), the slates must be nailed through the products into the timber sarking planks, normally 150 mm wide with a 2 mm gap. The underlay must be fixed to the sarking board using galvanized clout nails.

9.2.10 For fully supported roofs (where battens are used) counter battens of minimum thickness 12 mm must be installed either above or beneath the underlay for drainage purposes.

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. However, any damage occurring before enclosure must be repaired.

9.4.2 Damage to the products must be repaired prior to the installation of slates or tiles, by replacing the damaged areas or 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 packaging, along 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.

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

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

†ANNEX A – SUPPLEMENTARY INFORMATION

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.

Management Systems Certification for production

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

Additional Guidance

General

A.1 Detailing of abutments, verges and hips must be in accordance with the Certificate holder's instructions.

A.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 : 2023 and the tile/slate manufacturer's instructions, especially when using tightly jointed slates or tiles, where a ventilated batten space should be provided.

A.3 Where possible, eaves guards should be used to protect the products from sunlight and to direct water into the gutter.

Condensation

A.4 Energy loss by ventilation in conventionally ventilated cold roofs will be significantly reduced by the non-ventilated system.

A.5 In non-ventilated roof systems, the risk of condensation is equivalent to, or less than, that for conventionally ventilated cold roof systems.

A.6 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*.

Bibliography

BS 3177 : 1959 *Method for determining the permeability to water vapour of flexible sheet materials used for packaging*

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 : 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 1928 : 2000 *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of watertightness*

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 ISO 11925-2 : 2010 *Reaction to fire tests. Ignitability of products subjected to direct impingement of flame. Single-flame source test*

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

DIN EN 1107-1 : 1999 Flexible sheets for waterproofing –Determination of dimensional stability- Bitumen sheets for roof waterproofing

DIN EN 1109 : 1999 *Flexible sheets for waterproofing — Bitumen sheets for roof waterproofing — Determination of flexibility at low temperature*

DIN EN 13859-1 : 2005 *Flexible sheets for waterproofing — Definitions and characteristics of underlays — Underlays for discontinuous roofing*

EN 13859-1 : 2005 *Flexible sheets for waterproofing — Definitions and characteristics of underlays — Part 1 Underlays for discontinuous roofing*

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

EN 13859-1 : 2014 *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
- 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:

- 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 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.

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