

Permavent Limited

11 Cumberland Drive
Granby Industrial Estate
Weymouth
Dorset DT4 9TB

Tel: 01305 766 703 Fax: 01305 766 704

e-mail: enquiries@permavent.co.uk

website: www.permavent.co.uk



Agrément Certificate
23/6867

Product Sheet 1 Issue 1

PERMAVENT APEX AIR & VAPOUR PERMEABLE ROOF TILE UNDERLAY

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

This Agrément Certificate Product Sheet⁽¹⁾ relates to Permavent Apex⁽²⁾ Air & Vapour Permeable Roof Tile Underlay for use in Cold Ventilated and Warm Non-Ventilated Pitched Roof Systems of up to 70° pitch.

(1) Hereinafter referred to as 'Certificate'

(2) Apex is a registered trademark of Permavent Limited.

The assessment includes

Product factors:

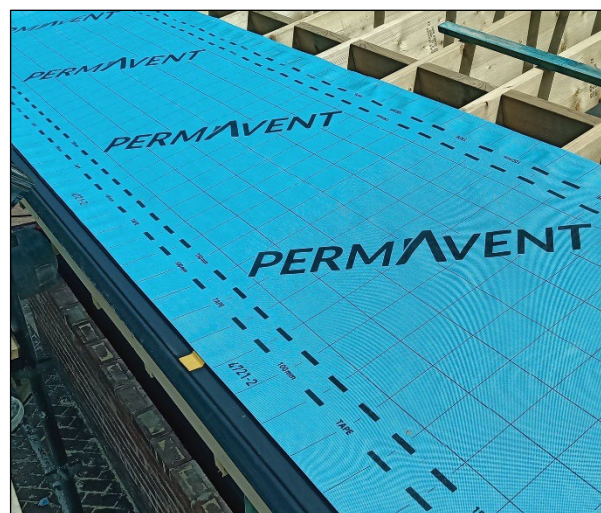
- compliance with Building Regulations
- compliance with additional regulatory or non-regulatory information where applicable
- evaluation against technical specifications
- assessment criteria and technical investigations
- uses and design considerations

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 product described herein. This product has 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 issue: 18 May 2023

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.

British Board of Agrément

1st Floor, Building 3, Hatters Lane
Croxley Park, Watford
Herts WD18 8YG

©2023

tel: 01923 665300
clientservices@bbacerts.co.uk
www.bbacerts.co.uk

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 Apex Air & Vapour Permeable Roof Tile Underlay 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 Building Regulations 2010 (England and Wales) (as amended)

Requirement:	B3(4)	Internal fire spread
Comment:		The product can contribute to satisfying this Requirement. See section 2 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		The product will contribute to a roof satisfying this Requirement. See section 3 of this Certificate.
Requirement:	C2(c)	Resistance to moisture
Comment:		The product can contribute to a roof satisfying this Requirement. See section 3 of this Certificate.
Regulation:	7(1)	Materials and workmanship
Comment:		The product is 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 product can contribute to a construction satisfying this Regulation. See sections 8 and 9 of this Certificate.
Regulation:	9	Building standards applicable to construction
Standard:	2.4	Cavities
Comment:		The product can contribute to satisfying this Standard with respect to clause 2.4.2 ⁽¹⁾⁽²⁾ . See section 2 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The product will contribute to a roof satisfying clauses 3.10.1 ⁽¹⁾⁽²⁾ and 3.10.8 ⁽¹⁾⁽²⁾ of this Standard. See section 3 of this Certificate.
Standard:	3.15	Condensation
Comment:		The product can contribute to limiting the risk of interstitial condensation, with reference to clauses 3.15.1 ⁽¹⁾⁽²⁾ , 3.15.3 ⁽¹⁾⁽²⁾ and 3.15.7 ⁽¹⁾⁽²⁾ of this Standard. See section 3 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The product can contribute to satisfying 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 product 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 product is acceptable. See sections 8 and 9 of this Certificate.
Regulation:	28(b)	Resistance to moisture and weather
Comment:		The product will contribute to a roof satisfying this Regulation. See section 3 of this Certificate.
Regulation:	29	Condensation
Comment:		The product can enable a roof to satisfy this Regulation. See section 3 of this Certificate.
Regulation:	35(4)	Internal fire spread - structure
Comment:		The product can contribute to satisfying this Regulation. See section 2 of this Certificate.

Additional Information

NHBC Standards 2023

In the opinion of the BBA, Permavent Apex Air & Vapour Permeable Roof Tile Underlay 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*.

Fulfilment of Requirements

The BBA has judged Permavent Apex Air & Vapour Permeable Roof Tile Underlay for use in Cold Ventilated and Warm Non-ventilated Pitched Roof Systems to be satisfactory for use as described in this Certificate. The product has been assessed as a roof tile underlay for use in cold ventilated and warm non-ventilated pitched roof systems of up to 70° pitch.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the product under assessment. Permavent Apex Air & Vapour Permeable Roof Tile Underlay for use in Cold Ventilated and Warm Non-Ventilated Pitched Roof Systems is a three-layer polypropylene composite. The product is available with an integral self-adhesive tape to allow sealing of overlaps.

The product has the nominal characteristics given in Table 1.

Characteristic (unit)	Permavent Apex
Mass per unit area ($\text{g}\cdot\text{m}^{-2}$)	180
Roll length (m)	50
Roll width (m)	1 and 1.5
Colour	
upper face	blue
lower face	grey

Applications

The product has been assessed for use as fully supported (and secured with counter battens and tiling battens) or unsupported underlay (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.

The product may be used over timber-based sarking planks or 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).

Definitions for product and applications inspected

The following term is defined for the purpose of this Certificate as:

- pitched roof — a roof having a fall in excess of 10° and a maximum pitch of 70°.

Product assessment – key factors

The product has been assessed for the following key factors, and the outcomes of the assessments are 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.

Product	≤345 mm batten gauge with battened laps ⁽¹⁾	≤250 mm batten gauge with battened laps ⁽¹⁾⁽²⁾	≤ 345 mm batten gauge with integral taped laps ⁽²⁾
Permavent Apex	1177	2745	2351

Product	≤345 mm batten gauge with battened laps	≤250 mm batten gauge with battened laps	≤ 345 mm batten gauge with integral taped laps ⁽²⁾
Permavent Apex	Zones 1 to 3	Zones 1 to 5	Zones 1 to 5

(1) Mean of test results.

(2) Underlays with a wind uplift resistance at 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.

Unsupported

1.1.2 On the basis of data assessed, the product is satisfactory for use in unsupported systems, in the geographical Wind Zones given in Table 5, 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 -70°, 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 and the Certificate holder's declared wind uplift resistances given in Table 2 of this Certificate.

Supported

1.1.3 On the basis of data assessed, the product, when fully supported, has adequate resistance to wind uplift forces.

1.1.4 The product 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.

1.2 Resistance to mechanical damage

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

Product assessed	Assessment method	Requirement	Result
Permavent Apex	Nail tear to DIN EN 12310-1 : 1999 longitudinal direction	Declared values 210 N	Pass
	transverse direction	210 N	
Permavent Apex	Mullen burst strength to BS EN ISO 2759 : 2014	Value achieved	1355 kPa

1.2.2 On the basis of data assessed, the product has 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 When tested to DIN EN ISO 11925-2 : 2011 and classified to DIN EN 13501-1 : 2010, the product achieved a reaction to fire classification of Class E⁽¹⁾.

(1) Report references PB-Hoch-170011 and KB-Hoch-170012, issued by Prüfinstitut Hoch. The reports are available from the Certificate holder upon request.

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 product is used unsupported, there is a risk that fire can spread if they are 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 product is 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 water resistance tests are given in Table 5.

Table 5 Water resistance

Product assessed	Assessment method	Requirement	Result
Permavent Apex	Water resistance to DIN EN 1928 : 2000	No leakage	Pass

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

3.1.3 The product is 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 product resists 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 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 transmission tests are given in Table 6.

Table 6 Water vapour transmission

Product assessed	Assessment method	Requirement	Result
Permavent Apex	Water vapour transmission properties to DIN EN ISO 12572 : 2001	Declared value $s_d = 0.01 \text{ m}^{(1)}$	Pass
Permavent Apex	Air Permeability to DIN EN 12114 : 2000	$\geq 20 \text{ m}^3/\text{m}^2\cdot\text{h}$ at 50Pa	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 For roofs designed in accordance with BS 5534 : 2014 and BS 5250 : 2021, the product may be regarded as low water vapour resistance (type LR) and air permeable underlay.

3.2.3 On the basis of data assessed, the product is air permeable, allowing a significant additional mechanism for water egress by convection. It is suitable for use in cold ventilated and in warm non-ventilated pitched roof systems, in accordance with section 9.1 of this Certificate.

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 7.

Table 7 Results of coefficient of dynamic friction tests

Product assessed	Assessment method	Requirement	Result
Permavent Apex	BBA Internal Test Specification T1/10	Value achieved	
	Coefficient of friction – dry		
	Machine		80
	Cross		80
Permavent Apex	BBA Internal Test Specification T1/10	Value achieved	
	Coefficient of friction – wet		
	Machine		66
	Cross		66

4.1.2 On the basis of data assessed, the product has a high coefficient of friction, giving a 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 product comprises polypropylene, which can be recycled.

8 Durability

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

8.2 Specific test data were assessed, as given in Table 8.

Table 8 Results of durability tests

Product assessed	Assessment method	Requirement	Result
Permavent Apex	Dimensional stability to BS EN 1107-2 : 2001 Longitudinal direction Transverse direction	≤2%	Pass
Permavent Apex	Tensile strength to DIN EN 12311-1 : 1999 – control Longitudinal direction Transverse direction	Declared values 330 N per 50 mm 270 N per 50 mm	Pass
Permavent Apex	Elongation to DIN EN 12311-1 : 1999 – control Longitudinal direction Transverse direction	Declared values 56% 68%	Pass
Permavent Apex	Tensile strength to DIN EN 12311-1 : 1999 336h UVA at 50°C followed by 90 days heat ageing at 70°C Longitudinal direction Transverse direction	Change < 30%	Pass
Permavent Apex	Elongation to DIN EN 12311-1 : 1999 336h UVA at 50°C followed by 90 days heat ageing at 70°C Longitudinal direction Transverse direction	Change < 30%	Pass
Permavent Apex	Resistance to water penetration to DIN EN 1928 : 2000 336h UVA at 50°C followed by 90 days heat ageing at 70°C	No leakage	Pass

8.3 Service life

8.3.1 Under normal service conditions, the product will have a service life comparable to that of traditional roof tile underlays, provided it is not exposed to sunlight for long periods, and it is designed, installed and maintained in accordance with this Certificate and the Certificate holder’s instructions.

8.3.2 The exposure of the product 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 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.

9.1.2 When the product is 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.

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

9.1.4 Project design wind speeds for the roof in which the product is 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.

9.1.5 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.

9.1.6 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.

9.2 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 : 2013. 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 NHBC requires that the product, once installed, must be inspected in accordance with *NHBC Standards 2023*, Chapter 7.2 *Pitched roofs*. Any damage to the product assessed in this Certificate must be repaired in accordance with section 9.4 of this Certificate and reinspected, in order to maintain product performance.

9.2.4 The product must be installed with the coloured or printed side uppermost, and lapped to shed water out and down the slope.

9.2.5 Overlaps must be provided with the minimum dimensions given in Table 9. Vertical laps must be staggered by 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.

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

9.2.6 Minimum overlaps at hips must be 150 mm, and in valleys 300 mm.

Procedure

Unsupported

9.2.7 The product, when installed as part of an unsupported system, must be fixed in the traditional method for roof tile underlays, ie draped between the rafters to allow drainage of liquid water under the tiling battens.

Fully supported

9.2.8 The product 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).

9.2.9 The product is secured to the support with counter battens at least 25 mm thick, to create drainage and vapour dispersal space⁽¹⁾ between the product and the tiles. 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.

9.2.10 The counter battens are fixed with galvanized clout nails at a maximum of 300 mm centres coinciding with the rafters. Tiling battens are secured to the counter battens and rafters with appropriate fixings.

9.2.11 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

9.3.1 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 product can 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 product is confined in a roof structure and has suitable durability, maintenance is not required. However, any damage occurring before enclosure must be repaired.

9.4.2 Damage to the product can 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 product 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.

†10.1.6 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 product is delivered to site in packaging bearing the Certificate holder's name, the grade identification 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 on their sides, on a level, clean surface, under cover and protected from sunlight.

Supporting information in this Annex is relevant to the product 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 product in accordance with Designated Standard EN 13859-1 : 2014.

CE marking

The Certificate holder has taken the responsibility of CE marking the product in accordance with harmonised European Standard EN 13859-1 : 2014.

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 Rheinland (Certificate 01 100 2100035).

Additional information on installation

General

A.1 Where possible, eaves guards should be used to protect the product from sunlight and to direct water into the gutter.

Condensation

A.2 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*.

Horizontal ceiling and insulation (cold roof)

A.3 Roofs designed and constructed in accordance with BS 5250 : 2021 will adequately limit the risk of interstitial condensation.

Inclined ceiling and insulation (warm roof)

A.4 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 and with sealed joints. 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)

A.5 Where an insulated ceiling spans only part of the roof line, the resulting cold roof spaces must be in accordance BS 5250 : 2021, Section 4, Subsection 12.

A.6 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.

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 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 1107-2 : 2001 *Flexible sheets for waterproofing — Determination of dimensional stability — Plastic and rubber sheets for roof waterproofing*

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 ISO 2759 : 2014 *Board — Determination of bursting strength*

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*

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

DIN EN 12310-1 : 1999 *Flexible sheets for waterproofing — Determination of resistance to tearing (nail shank) — Bitumen sheets for roof waterproofing*

DIN EN 12311-1 : 1999 *Flexible sheets for waterproofing — Determination of tensile properties — Bitumen sheets for roof waterproofing*

DIN EN 13501-1 : 2010 *Fire classification of construction product and building elements — Classification using test data from reaction to fire tests*

DIN EN ISO 11925-2 : 2011 *Reaction to fire tests. Ignitability of product subjected to direct impingement of flame. Single-flame source test*

DIN EN ISO 12572 : 2001 *Hygrothermal performance of building materials and product — 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
- 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 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.