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Agrément Certificate

08/4577

Product Sheet 1

UBBINK FLASHINGS

UBIFLEX B3 WATERPROOF FLASHING

This Agrément Certificate Product Sheet⁽¹⁾ relates to Ubiflex B3 Waterproof Flashing, a reinforced bitumen for use in flashing applications on flat and pitched roofs of new or existing domestic and non-domestic buildings, as an alternative to lead flashing.

(1) Hereinafter referred to as 'Certificate'.

CERTIFICATION INCLUDES:

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



KEY FACTORS ASSESSED

Weathertightness — as part of a complete roof, the product will resist the passage of moisture into the interior of the building (see section 6).

Properties in relation to fire — the product may achieve an AB classification to BS 476-3 : 2004. The Certificate holder has not declared a reaction to fire classification for the product to BS EN 13501-1 : 2018 (see section 7).

Strength — the product has adequate strength to resist the normal loads and impacts associated with installation of the roof (see section 8).

Durability — under normal service conditions, the product will have a service life in excess of 20 years (see section 10).

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 Fourth issue: 19 November 2021

Originally certificated on 4 August 2008

A handwritten signature in black ink, appearing to read 'Hardy Giesler'.

Hardy Giesler
Chief Executive Officer



The BBA is a UKAS accredited certification body – Number 113.

The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at www.bbacerts.co.uk
Readers MUST check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly.

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

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Regulations

In the opinion of the BBA, Ubiflex B3 Waterproof Flashing, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations (the presence of a UK map indicates that the subject is related to the Building Regulations in the region or regions of the UK depicted):



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

Requirement:	B4(1)	External fire spread
Comment:		The product is restricted by this Requirement. See sections 7.3 and 7.4 of this Certificate.
Requirement:	B4(2)	External fire spread
Comment:		The product is unrestricted by this Requirement. See sections 7.1 and 7.2 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		The product will contribute to a roof satisfying this Requirement. See section 6 of this Certificate.
Regulation:	7(1)	Materials and workmanship
Comment:		The product is acceptable. See section 10 and the <i>Installation</i> part of this Certificate.
Regulation:	7(2)	Materials and workmanship
Comment:		The product is restricted by this Requirement. See sections 7.3 and 7.4 of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)(2)	Durability, workmanship and fitness of materials
Comment:		The product can contribute to a construction satisfying the requirements of this Regulation. See sections 9 and 10 and the <i>Installation</i> part of this Certificate.
Regulation:	9	Building standards applicable to construction
Standard:	2.6	Spread to neighbouring buildings
Comment:		The product is restricted by this Standard with reference to clauses 2.6.4 ⁽¹⁾⁽²⁾ , 2.6.5 ⁽¹⁾ and 2.6.6 ⁽²⁾ . See sections 7.3, 7.5 and 7.6 of this Certificate
Standard:	2.7	Spread on external walls
Comment:		The product is restricted by this Standard with reference to clauses 2.6.4 ⁽¹⁾⁽²⁾ , 2.6.5 ⁽¹⁾ and 2.6.6 ⁽²⁾ . See sections 7.3, 7.5 and 7.6 of this Certificate
Standard:	2.8	Spread from neighbouring buildings
Comment:		The product is unrestricted by this Standard with reference to clause 2.8.1 ⁽¹⁾⁽²⁾ and will not affect the fire rating of the roof construction. See sections 7.1 and 7.2 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The product will enable a roof to satisfy the requirements of this Standard with reference to clauses 3.10.1 ⁽¹⁾⁽²⁾ , 3.10.7 ⁽¹⁾⁽²⁾ and 3.10.8 ⁽¹⁾⁽²⁾ . See section 6 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The product can contribute to meeting the relevant requirements of Regulation 9, Standards 1 to 6 and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard.

Regulation:	12	Building standards applicable to conversions
Comment:	Comments in relation to the 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(a)(i)	Fitness of materials and workmanship
Comment:	(iii)(b)(i)	The product is acceptable. See section 10 and the <i>Installation</i> part of this Certificate.
Regulation:	28(b)	Resistance to moisture and weather
Comment:	The product will enable a roof to satisfy the requirements of this Regulation. See section 6 of this Certificate.	
Regulation:	36(b)	External fire spread
Comment:	The product is unrestricted by this Regulation. See sections 7.1 to 7.3 of this Certificate.	

Construction (Design and Management) Regulations 2015

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

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

See sections: 1 *Description* (1.2) of this Certificate.

Additional Information

NHBC Standards 2021

In the opinion of the BBA, Ubiflex B3 Waterproof Flashing, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Chapters 6.8 *Fireplaces, chimneys and flues*, 7.1 *Flat roofs, terraces and balconies* and 7.2 *Pitched roofs*.

Technical Specification

1 Description

1.1 Ubiflex B3 Waterproof Flashing comprises a mixture of modified bitumen and additives reinforced with an aluminium mesh. The lower surface of the product has a kraft paper and film backing, and the upper surface has coloured granules.

1.2 The flashing has a thickness of 3.5 mm and is manufactured to the dimensions given in Table 1. The product is available in black, terracotta and grey colours.

Table 1 Product dimensions

Width (mm)	Length (m)	Roll weight (kg)
150	6,12	3.7, 7.2
200	6,12	4.8, 9.6
250	6,12	5.9, 12.0
300	6,12	7.0, 14.4
400	6,12	9.6, 19.2
450	12	21.6
500	6	12.0
600	6	14.4
1000	6	24.0

1.3 Ancillary items for use with the flashing include:

- Ubi-Seal Tape and Ubiflex High-Tack Sealant (an adhesive sealant compound) — available for use in joints and for sealing onto tiles
- Ubiflex Fixing Clips and Ubiflex Gap Sealant — for use in fixing into chased pointing joints
- Ubiflex Stepped Cover Flashing — available for use with double lap slates and tiles.

2 Manufacture

2.1 The flashing is manufactured by coating both sides of an aluminium mesh reinforcement with a mixture of modified bitumen and additives. The underside of the product is finished with a kraft paper and film backing. Coloured granules are added to the surface, and the material is cooled and rolled into the required lengths.

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

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

2.3 The management system of the manufacturer, has been assessed and registered as meeting the requirements of EN ISO 9001 : 2015 by KIWA (Certificate KSC-K55806/04).

3 Delivery and site handling

3.1 The product is distributed in boxed rolls marked with the size and the BBA logo incorporating the number of this Certificate.

3.2 The product should be stored upright, on a smooth, clean, dry surface, under cover and protected from sunlight.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Ubiflex B3 Waterproof Flashing.

Design Considerations

4 Use

4.1 Ubiflex B3 Waterproof Flashing, when designed and installed in accordance with BS 5534 : 2014, BS 6229 : 2018, BS 8000-0 : 2014, BS 8000-6 : 2013 and this Certificate, is satisfactory for use on flat and pitched roofs in flashing applications such as abutments, chimneys, saddles, valleys and dormers to provide a weatherproof junction.

4.2 Flat roofs are defined for the purposes of this Certificate as those having a minimum finished fall of 1:80. Pitched roofs are defined as those having falls in excess of 1:6.

4.3 Where the product is likely to come into contact with aggressive chemicals (such as acid, alkali, oil and solvent), a test on the product should be conducted before proceeding. If any doubt arises, the Certificate holder's advice should be sought.

5 Practicability of installation

The flashing can be installed by roofing contractors experienced with this type of product.

6 Weathertightness



Ubiflex B3 Waterproof Flashing, when incorporated into a roofing system designed and installed in accordance with conventional good practice, will adequately resist the passage of moisture to the interior of the building and so contribute to the roof satisfying the requirements of the national Building Regulations.

7 Properties in relation to fire

Roof pitches ≤ 70 degrees



7.1 Samples of black Ubiflex B3 Waterproof Flashing, when tested in accordance with BS 467-3 : 2004⁽¹⁾, achieved a B rating for surface spread of flame.

(1) BRE Test Report 242433 refers; copies are available from the Certificate holder.

7.2 In the opinion of the BBA, this colour of the product will achieve an AB classification in accordance with BS 467-3 : 2004 and so is unrestricted with respect to proximity to a boundary by the national Building Regulations. The performance of other colours should be confirmed by reference to the requirements of the documents supporting the national Building Regulations

Roof pitches >70 degrees



7.3 The Certificate holder has not declared a reaction to fire classification for the product to BS EN 13501-1: 2018.



7.4 In England and Wales, the product may be used on buildings with no storey 18 m or more above the ground and 1 metre or more from a boundary, additional limitations apply on assembly and recreation buildings. With minor exceptions, the product should be included in the calculations of unprotected area.



7.5 In Scotland, the product may be used on buildings more than 1 m from a boundary. With minor exceptions, the product should be included in calculations of unprotected area.

7.6 In Scotland, the product should not be used on any building with a storey more than 11 m above the ground, or on any entertainment or assembly building with a total storey area more than 500 m², or on any hospital or residential care building with a total storey area more than 200 m².

7.7 Designers should 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.

8 Strength

8.1 The product will resist the impacts associated with installation and use.

8.2 Tests conducted on the product applied using Ubi-Seal Tape and Ubiflex High-Tack Sealant surrounding a chimney and on double pantiles indicated that it could resist wind speeds of at least 49 m·s⁻¹ (110 mph) without failing or demonstrating any visible signs of distress.

9 Maintenance



There are no maintenance requirements, other than a regular visual check for damage. Damaged areas can be repaired, prior to completion of the roof covering, by following the Certificate holder's instructions.

10 Durability



The product, when subjected to normal conditions of exposure and use, will have a service life in excess of 20 years.

Installation

11 General

11.1 Ubiflex B3 Waterproof Flashing must be installed and fixed in accordance with the Certificate holder's instructions, the relevant recommendations of BS 5534 : 2014, BS 6229 : 2018, BS 8000-0 : 2014, BS 8000-6 : 2013 and this Certificate.

11.2 The product is worked the same way as lead flashing but without the need for protective measures. It can be cut with a sharp knife or snips.

11.3 A minimum temperature of -10°C is required for cutting and folding and $+5^{\circ}\text{C}$ for working with a lead dresser.

11.4 Foot traffic should be avoided or a protection board should be used when installing the product as a valley lining.

11.5 Overlap joints of 150 mm should be sealed with Ubiflex High-Tack Sealant.

12 Procedure

12.1 For flashing, the product is fitted into the pointing gap by at least 30 mm and held in place with Ubiflex Fixing Clips. Ubiflex Gap Sealant should be applied into the pointing gap to ensure the joint remains waterproof.

12.2 The product should cover upstands by at least 75 mm and be sealed with a continuous bead of Ubiflex High-Tack Sealant. The height of the upstand should be at least 150 mm.

12.3 Where double lap tiles or slates abut a wall they should be covered with Ubiflex Stepped Cover Flashing, which should be 150 mm wide and cover the soakers by not less than 65 mm. The flashing should be sealed with a continuous bead of Ubiflex High-Tack Sealant.

12.4 When applying to a lean-to roof or chimney in a pitched roof, the flashing should be turned up no less than 75 mm and extend down the slope at least 150 mm (200 mm for pitches below 25° or exposed areas), and sealed to the roof covering.

12.5 At the junction of chimney and ridge, a separate saddle flashing is required. The flashing should extend down both sides of the roof by no less than 150 mm and along the ridge by no less than 150 mm. The flashing edge which is beneath the ridge tile should be turned back to form a welted weather check.

13 Repair

Damage to the product should be repaired prior to the installation of slates or tiles, by patching and sealing the damaged areas. Care must be taken to ensure that the watertightness of the roof is maintained.

14 Tests

Tests were carried out and the results assessed to determine:

- dimensional checks
- weight per unit area
- water absorption
- tensile strength and elongation at break
- resistance to tear
- dimensional stability
- resistance to water penetration
- effect of heat ageing
- resistance to UV ageing
- water vapour transmission
- resistance to impact (soft and hard substrates)
- low temperature flexibility.

15 Investigations

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

15.2 An assessment was made of results of a fire test in accordance with BS 476-3 : 2004.

15.3 An assessment was made of existing data on:

- resistance to corrosion
- flow resistance
- thermal shock
- deformation under compressive load
- watertightness of joints
- shear resistance of joints
- exposure to elevated temperature
- resistance to wind uplift.

Bibliography

BS 476-3 : 2004 *Fire tests on building materials and structures — Classification and method of test for external fire exposure to roofs*

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

BS 6229 : 2018 *Flat roofs with continuously supported coverings — Code of practice*

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

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

BS EN 13501-1: 2018 *Fire classification of construction products and building elements. Classification using data from reaction to fire tests*

ISO 9001 : 2015 *Quality management systems — Requirements*

16 Conditions

16.1 This Certificate:

- relates only to the product/system 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 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.

16.2 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.

16.3 This Certificate will remain valid for an unlimited period provided that the product/system 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.

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

16.5 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/system or any other product/system
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product/system
- actual installations of the product/system, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product/system is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product/system, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to CE marking.

16.6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product/system which is contained or referred to in this Certificate is the minimum required to be met when the product/system 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.