

IKO PLC

Appley Lane North
Appley Bridge
Wigan
Lancashire WN6 9AB

Tel: 01257 255 771

e-mail: technical@ikogroup.co.uk

website: www.ikogroup.co.uk

**Agrément Certificate****22/6356**

Product Sheet 1

IKO FLASHINGS**IKOFLASH-e**

This Agrément Certificate Product Sheet⁽¹⁾ relates to IKOFlash-e, a polyvinyl butyral reinforced material for use in flashing applications on flat and pitched roofs of new or existing domestic and non-domestic buildings.

(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 contribute to resisting the passage of moisture into the interior of the building (see section 6).

Properties in relation to fire — the product may achieve an AC classification to BS 476-3 : 2004 and Class E to EN 13501-1 : 2007 and its use is restricted in some cases by the national Building Regulations (see Section 7).

Strength — the product has adequate strength to resist the normal loads and impacts associated with installation of the roof and in service (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 First issue: 26 October 2022

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.

British Board of Agrément

1st Floor Building 3
Hatters Lane, Croxley Park,
Watford, Herts WD18 9YG

©2022

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

Regulations

In the opinion of the BBA, IKOFlash-e, 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 may be restricted 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 Regulation. See sections 7.3 and 7.4 of this Certificate.	



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)(2)	Fitness and durability of materials and workmanship
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:	8(3)	Fitness and durability of materials and workmanship
Comment:	The product is restricted by this Regulation. See sections 7.3 of this Certificate.	
Regulation:	9	Building standards applicable to construction
Standard:	2.6	Spread to neighbouring buildings
Standard:	2.7	Spread on external walls
Comment:	The product is restricted by these Standards 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 may be restricted by this Standard, with reference to clause 2.8.1 ⁽¹⁾⁽²⁾ . See sections 7.1 and 7.2 of this Certificate.	
Standard:	3.10	Precipitation
Comment:	The product will contribute to a roof satisfying clauses 3.10.1 ⁽¹⁾⁽²⁾ , 3.10.7 ⁽¹⁾⁽²⁾ and 3.10.8 ⁽¹⁾⁽²⁾ of this Standard. 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(1)(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:	23(2)	Fitness of materials and workmanship
Comment:	The product is restricted by this Regulation. See sections 7.3 and 7.4 of this Certificate.	
Regulation:	28(b)	Resistance to moisture and weather
Comment:	The product will contribute to a roof satisfying this Regulation. See section 6 of this Certificate.	
Regulation:	36(a)	External fire spread
Comment:	The product is restricted by this Regulation. See sections 7.3 and 7.4 of this Certificate.	
Regulation:	36(b)	External fire spread
Comment:	The product may be restricted by this Regulation. See sections 7.1, 7.2 and 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 section: 1 *Description* (1.2) of this Certificate.

Additional Information

NHBC Standards 2022

In the opinion of the BBA, IKOFlash-e, 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 IKOFlash-e is a polyvinyl butyral (PVB) based flashing material with an aluminium mesh reinforcement.

1.2 The flashing has a thickness of 3.0 mm with a weight per unit area of 3.85 kg·m⁻² and is manufactured to the dimensions given in Table 1. The product is available in lead grey, black and terracotta colours.

Table 1 Product dimensions

Width (mm)	Length (m)	Roll weight (kg)
150	6	3.5
200	6	4.6
250	6	5.8
300	6	7.0
330	6	7.7
400	6	9.2
450	6	10.4
500	6	11.5
600	6	13.9
1000	6	23.1

1.3 The ancillary items for use with the product are:

- IKOFlash-e Sealant — for use in joints and sealing to the substrate
- clips — for use in fixing into chased pointing joints
- roller — for moulding the product and pressing down the seas
- scissors — for cutting the product.

2 Manufacture

2.1 The product is manufactured by coating both sides of a reinforced aluminium mesh with extruded PVB compound.

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.

3 Delivery and site handling

3.1 The product is distributed sealed in plastic film on pallets marked with the size, a wrapper with installation instructions 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 IKOFlash-e.

Design Considerations

4 Use

IKOFlash-e, when used and installed in accordance with BS 5534 : 2014, BS 6229 : 2018, BS 8000-0 : 2014 and BS 8000-6 : 2013, is satisfactory for use in flashing applications such as abutments, stepped flashings, chimneys, dormers and in valleys to provide a weatherproof junction.

5 Practicability of installation

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

6 Weathertightness



IKOFlash-e, 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 lead grey IKOFlash-e, when tested in accordance with BS 476-3 : 2004, achieved a C rating for surface spread of flame.

7.2 In the opinion of the BBA, this colour of the product will achieve an AC classification in accordance with BS 476-3 : 2004, and so is unrestricted with respect to proximity to a boundary by the national Building Regulations. The classification and permissible areas of use 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 product in lead grey colour is classified as Class E in accordance with EN 13501-1 : 2007 . The Certificate holder has not declared a reaction to fire classification for the other colours of the product.



7.4 In England, Wales and Northern Ireland, 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

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

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

11.2 The product is worked the same way as lead flashing by bossing around shapes or folding as required, but without the need for protective measures. It can be cut with a sharp knife or scissors.

11.3 A minimum temperature of -20°C is required for cutting and folding. The product is more difficult to process at temperatures below 5°C.

12 Procedure

12.1 The product is fitted into the pointing gap by at least 30 mm and held in place with clips. Lime mortar should be applied into the pointing gap to ensure the joint remains waterproof.

12.2 When using the product in valleys, it should be fully supported on 19 mm boarding set between the rafters with a 4 mm overlay of plywood in the same manner as recommended when using lead flashing.

12.3 The product should cover upstands by at least 75 mm and be sealed to the substrate with a continuous bead of IKOFlash-e Sealant. The height of the upstand should be at least 150 mm.

12.4 Overlap joints between the product (minimum 60 mm) can be hot-air welded or sealed using IKOFlash-e Sealant. The recommended welding temperature is 350 to 400°C.

12.5 A roller is used to press down the welded seams and mould the product to the area where it has been applied.

13 Repair

Damage to the product must 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.

Technical Investigations

14 Investigations

14.1 An assessment was made of existing data relating to:

- dimensional checks
- weight per unit area
- resistance to tear
- dimensional stability
- resistance to water penetration
- water vapour transmission
- effect of heat ageing
- resistance to UV ageing

- effect of water exposure
- effect of exposure to milk of lime
- effect of exposure to bitumen
- effect of exposure to PVC
- resistance to impact (soft and hard substrates)
- resistance to static loading
- low temperature flexibility
- resistance to peel from support
- shear resistance of joints
- peel resistance of joints
- watertightness of joints.

14.2 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.

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

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 flexible waterproof coverings — Code of practice*

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

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

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

15 Conditions

15.1 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 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.

15.2 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.

15.3 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.

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

15.5 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.

15.6 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.