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Agrément Certificate
09/4685
Product Sheet 1

ICOPAL FLASHINGS

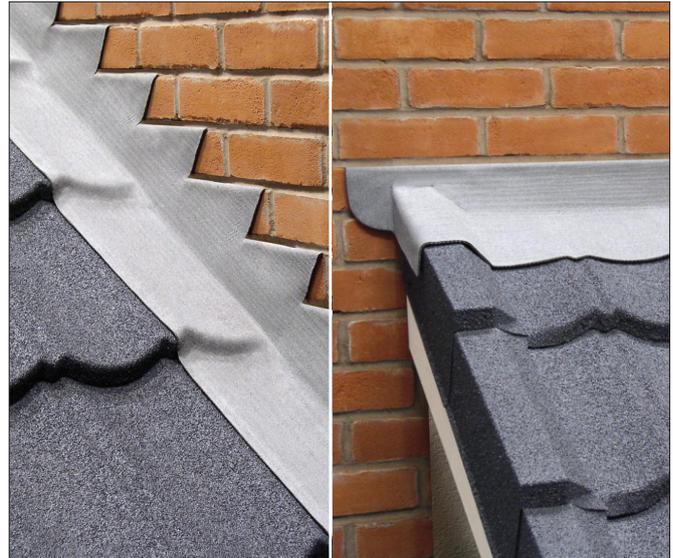
FORMFLASH – LEAD FREE WATERPROOF FLASHING

This Agrément Certificate Product Sheet⁽¹⁾ relates to FORMFLASH – Lead Free Waterproof Flashing, for use in cover flashing applications on flat and pitched roofs, 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 contribute to resisting the passage of moisture into the interior of the building (see section 6).

Properties in relation to fire — the product, when used as part of a complete roof, will be unrestricted under the Building Regulations (see section 7).

Strength — the product has adequate strength to resist the loads associated with the 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

A handwritten signature in black ink, appearing to read 'John Albon'.

Date of Second issue: 24 August 2015

John Albon — Head of Approvals

A handwritten signature in black ink, appearing to read 'Claire Curtis-Thomas'.

Originally certificated on 11 September 2009

Construction Products

Claire Curtis-Thomas
Chief Executive

The BBA is a UKAS accredited certification body — Number 1113. 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 are advised to check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA direct.

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Regulations

In the opinion of the BBA, FORMFLASH – Lead Free 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(2)	External fire spread
Comment:	The product, when used as part of a complete roof, will not affect the fire rating of the roof construction. See section 7 of this Certificate.
Requirement: C2(b)	Resistance to moisture
Comment:	The product will contribute to a roof meeting this Requirement. See section 6 of this Certificate.
Regulation: 7	Materials and workmanship
Comment:	The product is acceptable. See section 10 and the <i>Installation</i> part 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 this Regulation. See sections 9 and 10 and the <i>Installation</i> part of this Certificate.
Regulation: 9	Building standards applicable to construction
Standard: 2.8	Spread from neighbouring buildings
Comment:	The product can be regarded as having a low vulnerability, with reference to clause 2.8.1 ⁽¹⁾⁽²⁾ , and will not affect the fire rating of the roof construction. See section 7 of this Certificate.
Standard: 3.10	Precipitation
Comment:	The product will contribute to satisfying clauses 3.10.1 ⁽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:	All comments given for 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)(iii)(b)(i)	Fitness of materials and workmanship
Comment:	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 contribute to a roof satisfying this Regulation. See section 6 of this Certificate.
Regulation: 36(b)	External fire spread
Comment:	The product, when used as part of a complete roof construction, will not affect the fire rating of the roof construction. See section 7 of this Certificate.

Construction (Design and Management) Regulations 2015

Construction (Design and Management) Regulations (Northern Ireland) 2007

Information in this Certificate may assist the client, Principal Designer/CDM co-ordinator, designer and contractors to address their obligations under these Regulations.

See sections: 1 *Description* (1.2) and 11 *General* (11.2) of this Certificate.

Additional Information

NHBC Standards 2014

NHBC accepts the use of FORMFLASH – Lead Free Waterproof Flashing, provided it is installed, used and maintained in accordance with this Certificate, in relation to *NHBC Standards*, Chapters 6.8 *Fireplaces, chimneys and flues*, 7.1 *Flat roofs and balconies* and 7.2 *Pitched roofs*.

Technical Specification

1 Description

1.1 FORMFLASH – Lead Free Waterproof Flashing comprises an aluminium mesh reinforcement coated with a mixture of elastomeric bitumen and additives. The lower surface is finished with a thermofusible film to protect the rolls during storage and the upper surface has a fine grey granule finish.

1.2 The rolls are available with the nominal characteristics of:

Roll length (m)	10
Roll widths (mm)	120, 150, 200, 250, 300, 450 and 950
Mass per unit area (kg·m ⁻²)	4.75
Colour	grey.

1.3 Ancillary items for use with the product include:

- Icopal Bitumen Sealant — for use in pointing chases after securing the FormFlash flashing with FormFlash Fixing Clips
- FormFlash Fixing Clips — used to secure the FormFlash flashing into pre-cut chases in upstands.

2 Manufacture

2.1 The product is manufactured by coating both sides of an aluminium mesh reinforcement with a mixture of elastomeric bitumen and additives.

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 BS EN ISO 9001 : 2008 by BVQI (Certificate FRO04371-1).

3 Delivery and site handling

3.1 The product is distributed in rolls, secured with a paper band bearing the product name and description, roll size and the BBA logo including the number of this Certificate.

3.2 The product should be stored on end 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 FORMFLASH – Lead Free Waterproof Flashing.

Design Considerations

4 General

4.1 FORMFLASH – Lead Free Waterproof Flashing, when designed and installed in accordance with the relevant parts of BS 5534 : 2014 and BS 8000-6 : 2013, is suitable for use as an alternative flashing material to traditional lead flashing on chimneys, saddles, outlets, valleys, and top edge and side abutment details, to provide a weatherproof finish in conjunction with a range of tiles and slates.

4.2 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 product can be installed readily by competent roofing slaters and tillers.

6 Weathertightness



FORMFLASH – Lead Free 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 meeting the requirements of the national Building Regulations.

7 Properties in relation to fire



Samples of FORMFLASH – Lead Free Waterproof Flashing, when tested in accordance with BS 476-3 : 2004, achieved an A rating for surface spread of flame.

8 Strength

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

9 Maintenance



Damaged areas can be repaired by following the Certificate holder's instructions.

10 Durability



The product, when subjected to normal conditions of exposure and use, will retain its integrity for a period of at least 20 years.

Installation

11 General

11.1 Installation of FORMFLASH – Lead Free Waterproof Flashing should be strictly in accordance with the Certificate holder's instructions and the relevant recommendations of BS 5534 : 2014, BS 6229 : 2003 and BS 8000-6 : 2013.

11.2 The product is worked the same way as lead flashing. It can be cut with a sharp knife or snips. In respect of health, protective gloves should be worn during installation.

11.3 Cutting and folding can be carried out at temperatures normally associated with roofing works.

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 minimum are required and may be sealed by gentle warming of the reverse side, ensuring that the thermofusible film is completely dispersed before making the seal. Alternatively, the overlap can be secured by additional strips of FORMFLASH – Lead Free Waterproof Flashing to make clips.

11.6 In exposed locations, additional clips fabricated from strips of FORMFLASH – Lead Free Waterproof Flashing should be used in conjunction with FormFlash Fixing Clips, to secure the free edges of the flashing to prevent lifting and distortion of the flashing in high winds. The size and frequency of clips will be determined by the extent of exposure.

Technical Investigations

12 Tests

Tests were carried out on the product and the results assessed to determine:

- tensile strength
- elongation at break
- tear resistance
- dimensional stability
- water absorption
- water vapour transmission
- water vapour resistance
- dimensional checks
- ash content
- mass per unit area
- low temperature flexibility
- effect of accelerated ageing and colour stability
- effect of heat ageing
- resistance to UV ageing.

13 Investigations

13.1 An assessment was made of results of a fire test in accordance with BS 476-3 : 2004 carried out by an independent test authority.

13.2 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.

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 *Slating and tiling for pitched roofs and vertical cladding — Code of practice*
- BS 6229 : 2003 *Flat roofs with continuously supported coverings — Code of practice*
- BS 8000-6 : 2013 *Workmanship on building sites — Code of practice for slating and tiling of roofs and walls*
- BS EN ISO 9001 : 2008 *Quality management systems — Requirements*

Conditions of Certification

14 Conditions

14.1 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.

14.2 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.

14.3 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.

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

14.5 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.

14.6 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.