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Agrément Certificate

11/4854

Product Sheet 1

LEAD-FREE FLASHINGS

ALTO-LEAD FLASHING

This Agrément Certificate Product Sheet⁽¹⁾ relates to Alto-Lead Flashing, a polyurethane-coated aluminium sheet with a butyl adhesive backing, for use at abutments, valleys, box gutters, stepped flashings, dormers and chimneys on 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 national Building Regulations (see section 7).

Strength — the product has adequate strength to resist the loads 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 Third issue: 21 May 2018

John Albon – Head of Approvals
Construction Products

Originally certificated on 12 September 2011

Claire Curtis-Thomas
Chief Executive

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 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.

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

British Board of Agrément

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Regulations

In the opinion of the BBA, Alto-Lead 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 satisfying 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 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:	2.8	Spread from neighbouring buildings
Comment:		The product can be regarded as having a low vulnerability, with reference to clause 2.8.1 ⁽¹⁾⁽²⁾ of this Standard, 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 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)(b)	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 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, 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) 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 2018

In the opinion of the BBA, Alto-Lead 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*, and 7.2 *Pitched roofs*.

Technical Specification

1 Description

1.1 Alto-Lead Flashing comprises sheet aluminium coated with polyurethane on both sides and either a black (winter grade) or grey (summer grade) butyl adhesive on the lower surface protected by a release paper.

1.2 The rolls are available with nominal characteristics of:

Roll length ⁽¹⁾ (m)	5.0
Roll width ⁽¹⁾ (mm)	150, 300, 450, 600
Thickness (mm)	0.15
Weight of roll (kg)	1.5, 3.0, 4.5, 6.0
Colours	red, black, brown, light grey and lead grey
Finish	structured, corrugated or smooth.

(1) Other widths and lengths are available to order.

2 Manufacture

2.1 The product is manufactured by profiling sheet aluminium and coating with polyurethane on both sides and butyl adhesive, protected by a release paper, on the underside.

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 product is manufactured by Clip Stanz Ood using BWK Dachzubehör GmbH equipment and technical control, and distributed in the UK by Mercury Building Products Ltd, 114 Eckington Road, Coal Aston, Dronfield, Sheffield S18 3AY, website www.mercurybuildingproducts.com.

2.4 The management system of Clip Stanz Ood has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2008 by TÜV NORD CERT GmbH (Certificate 44100090017).

3 Delivery and site handling

3.1 The product is distributed in boxed rolls marked with the size, colour, product name, number of rolls per box 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 Alto-Lead Flashing.

Design Considerations

4 Use

4.1 Alto-Lead Flashing, when designed and installed in accordance with BS 5534 : 2014, BS 8000-0 : 2014 and BS 8000-6 : 2013, is satisfactory for use in flashing applications such as chimneys, side abutments, valleys, box gutters, stepped flashings, dormers and chimneys to provide a weatherproof junction.

4.2 Where the product is likely to come into contact with potentially damaging chemicals (such as acid, alkali, oil and solvents), 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 by roofing contractors experienced with this type of product.

6 Weathertightness



Alto-Lead 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



7.1 Samples of Alto-Lead Flashing, when tested in accordance with BS 467-3 : 2004, achieved an A rating for surface spread of flame.

7.2 In the opinion of the BBA, the product achieves an AA rating or low vulnerability as defined in the national Building Regulations.

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.

11 Reuse and recyclability

The product comprises aluminium, which can be recycled.

Installation

12 General

12.1 Alto-Lead Flashing must be installed and fixed in accordance with the Certificate holder's instructions and the relevant recommendations of BS 5534 : 2014, BS 8000-0 : 2014 and BS 8000-6 : 2013.

12.2 The product is worked the same way as lead flashing. It can be installed and worked in any direction using a mallet, roller or by hand. Cutting is achieved with scissors or a sharp knife without the need for protective measures.

12.3 Cutting, folding and working with a lead dresser can be carried out at a minimum temperature of 5°C.

13 Procedure

13.1 When installing the product in valleys, foot traffic should be avoided or a protection board should be used.

13.2 The backing paper on the product should be left in place until the final shape and position has been determined prior to its removal.

13.3 Surfaces should be clean and dry and any loose material removed to ensure proper adhesion.

13.4 The product should be dressed into the brickwork and sealed. Any jointing detail should have a minimum overlap of 100 mm.

13.5 Where top edges are exposed, a silicone sealant should be applied to prevent ingress of rainwater behind the flashing. Alternatively, a cover flashing turned into the joints of the brickwork can be used.

14 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.

Technical Investigations

15 Tests

Tests were carried out and the results assessed to determine:

- width and thickness
- weight per unit area
- tensile strength and elongation
- tear resistance
- low temperature foldability
- dimensional stability
- water vapour transmission
- water absorption

- ash content
- peel strength from brick and concrete substrates
- effect of accelerated weathering and colour stability.

16 Investigations

16.1 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.

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

16.3 An assessment was made of existing data on:

- bond strength
- bond strength at elevated temperature
- bond strength at low temperature
- resistance to artificial ageing
- effect of thermal ageing after artificial ageing.

16.4 A user survey was carried out to assess the performance of the product in service.

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 + A1 : 2015 *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 building sites — Code of practice for slating and tiling of roofs and claddings*

BS EN ISO 9001 : 2008 *Quality management systems — Requirements*

17 Conditions

17.1 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.

17.2 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.

17.3 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.

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

17.5 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.

17.6 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.