# Alumasc Exterior Building Products Ltd t/a Alumasc Water Management Solutions

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Agrément Certificate 86/1671 Product Sheet 4

# ALUMASC RAINWATER SYSTEMS

# ALUMASC POLYESTER COATED ALUMINIUM SYSTEMS

This Agrément Certificate Product Sheet<sup>(1)</sup> relates to Alumasc Polyester Coated Aluminium Systems, for use as eaves guttering systems for conveying rainwater from roofs.

(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**

**Compatibility** — the coating protects aluminium from corrosive substances (see section 6).

**Location** — the coating is abrasion resistant, enabling downpipes to be used at ground level (see section 7).

**Durability** — the coating will have a life expectancy of at least 20 years in 'normal' environments and the gutters an overall life expectancy of 40 years in rural and suburban conditions, and 25 years in coastal and industrial conditions (see section 9).

The BBA has awarded this Certificate to the company named above for the systems described herein. These systems have been assessed by the BBA as being fit for their intended use provided they are installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of Third issue: 19 March 2019

Originally certificated on 28 November 1988

AValut .

Paul Valentine Technical Excellence Director

Claure Curtus Momas,

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** Bucknalls Lane Watford Herts WD25 9BA



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## Regulations

In the opinion of the BBA, Alumasc Polyester Coated Aluminium 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 presence of a UK map indicates that the subject is related to the Building Regulations in the region or regions of the UK depicted):

Requirement:H3Rainwater drainage The systems satisfy this Requirement. See sections 4 and 7 of this Certificate.Regulation:7Materials and workmanship (applicable to Wales only) Materials and workmanship (applicable to England only) The systems are acceptable. See section 9 and the Installation part of this Certificate.With the Building (Scotland) Regulations 2004 (as amended)Regulation:8(1)(2)Durability, workmanship and fitness of materials and 9 and the Installation part of this Certificate.Regulation:9Building standards applicable to construction Standard: Comment:3.6Surface water drainage The systems can satisfy the relevant requirements of this Standard. See sections 4 and 7 of this Certificate.With the Building Regulations (Northern Ireland) 2012 (as amended)	E T	The Building Regulations 2010 (England and Wales) (as amended)		
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Regulation: 8(1)(2) Durability, workmanship and fitness of materials   Comment: The systems can contribute to a construction satisfying this Regulation. See sections 8 and 9 and the <i>Installation</i> part of this Certificate.   Regulation: 9 Building standards applicable to construction   Standard: 3.6 Surface water drainage   Comment: The systems can satisfy the relevant requirements of this Standard. See sections 4 and 7 of this Certificate.	<b>Regulation:</b>	7(1)		
Regulation: 8(1)(2) Durability, workmanship and fitness of materials   Comment: The systems can contribute to a construction satisfying this Regulation. See sections 8 and 9 and the Installation part of this Certificate.   Regulation: 9 Building standards applicable to construction   Standard: 3.6 Surface water drainage   Comment: The systems can satisfy the relevant requirements of this Standard. See sections 4 and 7 of this Certificate.	Comment:		The systems are acceptable. See section 9 and the Installation part of this Certificate.	
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Regulation: 9 Building standards applicable to construction   Standard: 3.6 Surface water drainage   Comment: The systems can satisfy the relevant requirements of this Standard. See sections 4 and 7 of this Certificate.	Regulation:	8(1)(2)	Durability, workmanship and fitness of materials	
Regulation: 9 Building standards applicable to construction   Standard: 3.6 Surface water drainage   Comment: The systems can satisfy the relevant requirements of this Standard. See sections 4 and 7 of this Certificate.	Comment:		The systems can contribute to a construction satisfying this Regulation. See sections 8	
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Regulation: 23 Fitness of materials and workmanship	Regulation:	23	Fitness of materials and workmanship	
Comment: The systems are acceptable. See section 9 and the <i>Installation</i> part of this Certificate.	Comment:		The systems are acceptable. See section 9 and the <i>Installation</i> part of this Certificate.	
Regulation: 82 Rainwater drainage	Regulation:	82	Rainwater drainage	
Comment: The systems satisfy this Regulation. See sections 4 and 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: 3 *Delivery and site handling* (3.1) of this Certificate.

# **Additional Information**

## **NHBC Standards 2019**

In the opinion of the BBA, Alumasc Polyester Coated Aluminium 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*, Chapters 7.1 *Flat Roofs and balconies* and 7.2 *Pitched roofs*.

## **Technical Specification**

## **1** Description

1.1 Alumasc Polyester Coated Aluminium Systems are available in a maximum length of 3 m.

1.2 The protective polyester-powder coatings are manufactured and applied to the aluminium products described in Product Sheets 1 to 3 of this Certificate, in accordance with BS EN 12206-1 : 2004.

1.3 Articles to be coated are given an appropriate pre-treatment, dried, sprayed electrostatically with the polyester powder and heat cured.

1.4 The minimum coating thickness is 50  $\mu m.$ 

## 2 Manufacture

2.1 The systems components are manufactured from aluminium which is cut to the required dimensions and powder coated with polyester to BS EN 12206-1 : 2004.

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 Alumasc Exterior Building Products Ltd has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 by Centre for Assessment Ltd (Certificate 02/1832).

## 3 Delivery and site handling

3.1 Alumasc polyester coated aluminium components are delivered to site wrapped in polythene. Reasonable care should be taken to avoid damage to the coating during handling and installation.

3.2 In accordance with normal good practice, the coated products should be stored under cover and away from the possibility of impact and the effects of weather.

#### Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Alumasc Polyester Coated Aluminium Systems.

#### **Design Considerations**

#### 4 Use



4.1 Alumasc Polyester Coated Aluminium Systems are satisfactory for use as guttering systems for conveying rainwater from roofs.

4.2 The polyester-powder coating is suitable for application to the systems described in Product Sheets 1 to 3 of this Certificate.

4.3 The performance of joints, resistance to loading and flow characteristics of the coated components are unchanged from those described in Product Sheets 1 to 3 of this Certificate.

# **5** Practicability of installation

The systems are designed to be installed by a competent general builder, or a contractor, experienced with these types of systems.

# 6 Compatibility

6.1 The polyester-powder coating is an effective barrier against contact with substances which are potentially corrosive to aluminium, other metals, fresh mortar or sealants.

6.2 The measures described in Product Sheets 1 to 3 of this Certificate, section 11, are necessary where there are uncovered areas (eg cut ends and the inside of the downpipe).

## 7 Location



The coating is tough and abrasion resistant, hence the downpipes are suitable for use at ground level in areas readily accessible to the public (eg alongside pedestrian thoroughfares) where accidental damage is possible.

## 8 Maintenance



8.1 Alumasc Polyester Coated Aluminium Systems should be cleaned by hosing with water, using a mild detergent, and rinsing.

8.2 In polluted areas, it will be necessary to clean the coated system at regular intervals to maintain appearance.

8.3 For on-site repair of accidental damage to the coating, treatment of cut ends and for matching colours on such features as fasteners, Alumasc Enamel touch-up paint is available.

# 9 Durability



In the opinion of the BBA, the polyester-powder coating on Alumasc Polyester Coated Aluminium Systems will perform effectively and will extend the ultimate life of the product beyond the 25 to 40 years described in Product Sheets 1 to 3 of this Certificate.

## 10 Reuse and recyclability

The systems components contain polyester coated aluminium, which can be recycled.

#### Installation

# 11 General

11.1 Installation of Alumasc Polyester Coated Aluminium Systems must be carried out in accordance with the Certificate holder's instructions, BS EN 12056-3 : 2000 where applicable, and the *Installation* part of Product Sheets 1 to 3 of this Certificate for that particular design.

11.2 Joints may be made watertight using a low-modulus silicone sealant.

## 12 Tests

Tests were conducted on the coated components and the results assessed to determine:

- abrasion resistance
- impact resistance
- mortar resistance
- compatibility and adhesion of sealants.

# **13** Investigations

13.1 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.

13.2 Site visits were conducted to existing sites to assess the practicability of installation and the performance in use.

13.3 An assessment was made of independent test data relating to the colour stability of the coating, and an assessment was made of the durability of the systems.

## Bibliography

BS EN 12206-1 : 2004 Paints and varnishes — Coating of aluminium and aluminium alloys for architectural purposes — Coatings prepared from coating powder

BS EN 12056-3 : 2000 Gravity Drainage Systems inside Buildings — Roof drainage, layout and calculation

BS EN ISO 9001 : 2015 Quality management systems — Requirements

# **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.

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