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Agrément Certificate

18/5536

Product Sheet 2

LIQUASIL METAL ROOF PROTECTIVE COATINGS

FLEXLAP

This Agrément Certificate Product Sheet⁽¹⁾ relates to FlexLap, for use as a protective coating for cut edges of steel roofing sheets on 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

Properties in relation to fire — steel roofs to which the product is applied will remain unrestricted under the national Building Regulations (see section 6).

Protection from corrosion — the product will provide satisfactory resistance to corrosion of the cut edge of steel substrates (see section 7).

Adhesion — the adhesion of the product to the substrates is satisfactory (see section 9).

Durability — under normal service conditions, the product will provide a durable protection coating with a service life of up to 25 years (see section 11).



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: 16 May 2018

John Albon – Head of Approvals
Construction Products

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.

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Regulations

In the opinion of the BBA, FlexLap, 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 applied to a steel roof, will contribute to enabling the roof to be unrestricted under this Requirement. See section 6 of this Certificate.

Regulation: 7

Materials and workmanship

Comment:

The product is acceptable. See section 11 and the *Installation* part of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation: 8(1)(2)

Durability, workmanship and fitness of materials

Comment:

The use of the product satisfies the requirements of this Regulation. See sections 10 and 11 and the *Installation* part of this Certificate.

Regulation: 9

Building standards applicable to construction

Standard:

2.8

Spread from neighbouring buildings

Comment:

The product, when applied to a non-combustible substrate, can be regarded as having low vulnerability under clause 2.8.1⁽¹⁾ of this Standard and therefore will not affect the classification of the roof. 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⁾ and Schedule 6⁽¹⁾.

(1) Technical Handbook (Non-Domestic).



The Building Regulations (Northern Ireland) 2012 (as amended)

Regulation: 23(a)(b)(i)

Fitness of materials and workmanship

Comment:

The product is acceptable. See section 11 and the *Installation* part of this Certificate.

Regulation: 36b

External fire spread

Comment:

The product, when applied to a steel roof, will contribute to enabling the roof to be unrestricted under this Regulation. See section 6 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: 3 *Delivery and site handling* (3.1 and 3.3) of this Certificate.

Technical Specification

1 Description

1.1 FlexLap is a one-component, silicone based solvent-free, liquid-applied, water repellent coating, for brush or roller application. The standard colour is Goosewing Grey but it is available in RAL other colours.

1.2 Liquasil SWT Primer is used to prepare areas of corrosion on the substrate prior to the application of the product.

2 Manufacture

2.1 The product is manufactured by a batch-blending process.

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 delivered to site in five litre airtight containers bearing the Certificate holder's details, product name, hazard labels, transportation information, colour, expiry date and batch number.

3.2 The product must be stored between 5 and 25°C under well-ventilated, dry and frost-free conditions and away from direct sunlight, oxidising agents and acids.

3.3 The Certificate holder has taken the responsibility of classifying and labelling the product under the *CLP Regulation (EC) No 1272 / 2008 on the classification, labelling and packaging of substances and mixtures*. Users must refer to the relevant Safety Data Sheet(s).

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on FlexLap.

Design Considerations

4 Use

FlexLap is satisfactory for use as a cut edge protection against corrosion for steel roofing sheets on non-domestic buildings.

5 Practicability of installation

Installation of the product must be carried out only by specialist roofing contractors trained and approved by the Certificate holder.

6 Properties in relation to fire



The product will contribute to enabling the roof to which it is applied to be unrestricted under the national Building Regulations.

7 Protection from corrosion

The product will protect the cut edge of steel roofing sheets it is applied to from all normal atmospheric corrosive conditions, including coastal and industrial conditions.

8 Resistance to mechanical damage

The product is resistant to abrasion, but can be damaged by concentrated loads and impacts.

9 Adhesion

The adhesion of the product to the cut edges of primed plastisol coated steel and galvanized steel is satisfactory.

10 Maintenance



10.1 The product should be the subject of annual inspections and maintenance, at the same time as the roof, to ensure continued performance in line with good practice.

10.2 Where damage has occurred, it should be repaired in accordance with section 14 and the Certificate holder's instructions.

11 Durability



Under normal service conditions, the product will provide a durable cut edge protection for the steel substrate with a service life of up to 25 years.

Installation

12 General

12.1 Application of FlexLap is in accordance with the Certificate holder's instructions and this Certificate.

12.2 End laps and overlaps of the steel sheets to which the product is to be applied must be clean, free from loose and flaking rust, and dry.

12.3 Installation should not be carried out during inclement weather (eg rain, fog or snow), when rain is expected within three hours of application or at temperatures below -5°C. In conditions where surface condensation is forming on the substrate, suitable measures must be taken in accordance with the Certificate holder's instructions to remove the moisture.

12.4 Areas of rust are treated with Liquasil Cut SWT Primer, applied using either a brush or roller, at a coating rate of approximately $6 \text{ m}^2 \cdot \ell^{-1}$ prior to the application of the coating. Depending on weather and temperature conditions, Liquasil SWT Primer is touch dry in 2 to 24 hours. Time before application of the FlexLap to the primer is unlimited,

12.5 Once the primer is dry, the area either side of the lap is masked off to provide a straight line guide for application of FlexLap.

13 Procedure

13.1 Installation of the coating is carried out either using a brush or roller.

13.2 The product is applied in one coat at a coverage rate of approximately $1 \text{ m}^2 \cdot \text{L}^{-1}$ to give a finished film thickness of 350 to 500 μm .

13.3 The product is rainproof in two to three hours and thoroughly dry in 16 hours.

14 Repair

The repair of minor damage to the product can be achieved effectively by cleaning back to the unweathered material and recoating the damaged area with the product at the application rates stated in section 13.2.

Technical Investigations

15 Tests

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

- infrared analysis
- solids content
- water vapour permeability
- abrasion resistance
- dynamic indentation
- static loading
- delamination strength
- sulfur dioxide exposure
- salt fog exposure
- heat ageing
- UV ageing.

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 A visit was made to a site in progress to assess the practicability of installation.

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.