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Agrément Certificate

16/5294

Product Sheet 4

SIKALASTIC ROOF WATERPROOFING SYSTEMS

SIKALASTIC -625N LOCALLY-REINFORCED SYSTEM

This Agrément Certificate Product Sheet⁽¹⁾ relates to the Sikalastic -625N Locally-Reinforced System, consisting of a moisture triggered aliphatic polyurethane, for use as a waterproofing with localised reinforcement on pre-coated metal roofing sheets and fibre cement roof sheets.

(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 — the system will resist the passage of moisture into the interior of a building (see section 6).

Properties in relation to fire — the system may enable a roof to be unrestricted under the national Building Regulations (see section 7).

Adhesion — the adhesion of the system is sufficient to resist the effects of any likely wind suction and the effects of thermal or other minor movement likely to occur in practice (see section 8).

Resistance to mechanical damage — the system will accept, without damage, the limited foot traffic and loads associated with installation and maintenance (see section 9).

Durability — under normal service conditions, the system will provide a durable waterproof covering with a service life of at least 10 years (see section 11).



The BBA has awarded this Certificate to the company named above for the system described herein. This system 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 Second issue: 15 July 2022

Originally certificated on 11 May 2020

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 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, the Sikalastic -625N Locally-Reinforced System, 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:		On a suitable substructure, the system may enable a roof to be unrestricted under this Requirement. See section 7 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		The system will enable a roof to satisfy this Requirement. See section 6.1 of this Certificate.
Regulation:	7(1)	Materials and workmanship
Comment:		The system is acceptable. See section 11 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 use of the system satisfies the requirements of this Regulation. See sections 10.1 and 11 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 system, when applied to a suitable structure, may enable a roof to be unrestricted under clause 2.8.1 ⁽¹⁾⁽²⁾ of this Standard. See section 7 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The use of the system will enable a roof to satisfy the requirements of this Standard with reference to clauses 3.10.1 ⁽¹⁾⁽²⁾ and 3.10.7 ⁽¹⁾⁽²⁾ . See section 6.1 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The system 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 system 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)(b)(i)	Fitness of materials and workmanship
Comment:		The system is acceptable. See section 11 and the <i>Installation</i> part of this Certificate.
Regulation:	28(b)	Resistance to moisture and weather
Comment:		The system will enable a roof to satisfy the requirements of this Regulation. See section 6.1 of this Certificate.
Regulation:	36(b)	External fire spread
Comment:		On suitable substructures, the use of the system may enable a roof to be unrestricted under this Regulation. 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 sections: 3 *Delivery and site handling*, 4 *General* (4.4), 9 *Resistance to mechanical damage* (9.2) and 10 *Maintenance* (10.3) of this Certificate.

Additional Information

CE marking

The Certificate holder has taken the responsibility of CE marking the system, in accordance with European Technical Approval (ETA) 20/1023, ETA Danmark A/S, on the basis of EAD 030350-00-0402, Parts 1 and 6.

Registered office

The registered office of Sika Limited is Watchmead, Welwyn Garden City, Hertfordshire, AL7 1BQ (registered in England under company number 226822).

Technical Specification

1 Description

1.1 The Sikalastic -625N Locally-Reinforced System consists of the following components:

- Sikalastic -625N — a one-part, moisture-triggered, aliphatic based polyurethane
- Sika Concrete Primer — a two-part primer for concrete substrates
- Sika Concrete Primer LO — a two-part, low odour primer for concrete substrates
- Sika Metal Primer — a two-part primer for the treatment of previously untreated metal surfaces and for spot priming of areas of corroded metal after preparation
- Sika Bonding Primer — a primer for concrete substrates
- Sikalastic Flexistrip — a 50 mm square self-adhesive patch for use over bolt and fixing heads
- Sika Flexitape Heavy — a nylon mesh for use at fibre-cement and metal substrate joints
- Sika Joint Tape SA — a polymeric, self-adhesive rubberised tape with a woven polyester face, for use at fibre-cement and metal substrate joints, and over bolt and fixing heads
- Sikafloor -701 — a two-component epoxy primer, levelling mortar and mortar screed binder.

1.2 The levels of Use Categories in accordance with EAD 030350-00-0402 from ETA 20/1023 are:

External fire performance	B _{ROOF} (t1), B _{ROOF} (t4)
Reaction to fire	Euroclass E
Categorisation by working life	W2 (10 years)
Categorisation by climatic zones	M (moderate) and S (severe)
Categorisation by imposed loads	P3 (normal)
Categorisation by roof slope	S1 (<5%) to S4 (>30%)
Categorisation by surface temperature	
lowest	TL3 (-20°C)
highest	TH3 (80°C)
Resistance to wind loads	>50kPa.

2 Manufacture

2.1 The liquid components of the system are 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.

2.3 The management system of Sika Limited has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 and BS EN ISO 14001 : 2015 by SGS (Certificates CH15/1206 and CH15/1207 respectively).

3 Delivery and site handling

3.1 The Sikalastic -625N liquid component is delivered to site in 5 or 15 litre tins bearing the product's name, batch number and the BBA logo incorporating the number of this Certificate.

3.2 The liquid component should be stored in a dry, shaded area, above freezing point and away from ignition sources. Storage temperatures of between 10 and 25°C will give the product a shelf-life of 12 months; at higher temperatures the shelf-life will reduce progressively. Once opened, tins should be used within two or three days.

3.3 The Certificate holder has taken the responsibility of classifying and labelling the system components 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 the Sikalastic -625N Locally-Reinforced System.

Design Considerations

4 General

4.1 The Sikalastic -625N Locally-Reinforced System is satisfactory for use as a locally reinforced system on existing fibre cement (including asbestos) and plastisol-coated metal roofs with a maximum pitch of 70° and with limited access.

4.2 Decks to which the system is to be applied must comply with the relevant requirements of BS 6229 : 2018.

4.3 Limited access roofs are defined for the purpose of this Certificate as those subjected only to pedestrian traffic for maintenance of the roof covering, cleaning of gutters, etc.

4.4 Precautions must be taken before work is undertaken on fibre-reinforced asbestos roof sheets to avoid airborne asbestos fibres. Reference should be made to HSE *Health and safety guidance* HSG 33 and HSE *Asbestos essentials* A10 *Cleaning debris from guttering on an asbestos cement roof*, A12 *Cleaning weathered asbestos cement roofing and cladding* and EM9 *Disposal of asbestos waste*.

5 Practicability of installation

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

6 Weathertightness



6.1 The system will adequately resist the passage of moisture into the interior of a building and so contribute to satisfying the relevant requirements of the national Building Regulations.

6.2 To achieve a weathertight coating it is essential that the application rate quoted in the Certificate holder's installation instructions is applied.

7 Properties in relation to fire



7.1 When tested in flat and slope position to DD CEN/TS 1187 : 2012, Test 4, and classified in accordance with BS EN 13501-5 : 2016, the following systems achieved a B_{ROOF}(t4) classification and so are unrestricted with respect to proximity to a boundary, by the documents supporting the national Building Regulations:

- a system⁽¹⁾ comprising a 6 mm calcium silicate board, a base coat of Sikalastic -625N at an application rate of 0.5 l·m⁻² and a top coat of Sikalastic -625N at an application rate of 0.5 l·m⁻²(¹)
- a system⁽²⁾ comprising a 0.7 mm plastisol coated metal sheet, a base coat of Sikalastic -625N at an application rate of 0.5 l·m⁻² and a top coat of Sikalastic -625N at an application rate of 0.5 l·m⁻².

(1) Fire test and classification reports, reference 19938A and 19938B respectively, conducted by Warringtonfire. Report available from the Certificate holder.

(2) Fire test and classification reports, reference 20073A and 20073D respectively, conducted by Warringtonfire. Report available from the Certificate holder

7.2 The classification and permissible areas of use designation of other specifications should be confirmed by reference to the requirements of the documents supporting the national Building Regulations.

8 Adhesion

The adhesion of the system to the substrates indicated in section 4.1 is sufficient to resist the effects of any wind suction, elevated temperatures, thermal shock or minor movement likely to occur in practice.

9 Resistance to mechanical damage

9.1 The system can accept, without damage, the limited foot traffic and light concentrated loads associated with installation and maintenance. However, reasonable care should be taken to avoid puncture by sharp objects or concentrated loads.

9.2 When used on fibre cement substrates, additional precautions must be taken to spread loads when carrying out maintenance work on the roof due to the fragility of the substrate.

9.3 The system is capable of accepting minor structural movement while remaining weathertight.

10 Maintenance



10.1 The system should be the subject of six monthly inspections and maintenance in accordance with the recommendations of BS 6229 : 2018, Chapter 7 and the manufacturers own maintenance requirements, where relevant, to ensure continued satisfactory performance.

10.2 Where damage has occurred it should be repaired, at the earliest opportunity, in accordance with section 15 of this Certificate and the Certificate holder's instructions.

10.3 Asbestos pitched roofs encapsulated with the system must be the subject of six monthly inspections, in autumn after leaf fall and in the spring, to ensure that vegetation and other debris are cleared from the roof, and that drains remain clear and functional. All works should be carried out in accordance with HSE Asbestos Essentials A10, A12 and EM9.

11 Durability



Under normal service conditions, the system will achieve a service life of at least 10 years.

Installation

12 General

12.1 Installation of the Sikalastic -625N Locally-Reinforced System must be carried out only by specialist roofing contractors trained and approved by the Certificate holder, in accordance with the relevant clauses of BS 8000-0 : 2014, BS 8000-4 : 1989, the Certificate holder's instructions and this Certificate.

12.2 The system components must be at a temperature of, or greater than, 10°C for airless spray applications. All components must be applied when the air and substrate temperatures are greater than 5°C. Special precautions may be necessary when temperatures exceed 35°C, as shown in the Certificate holders' Technical Data Sheets.

12.3 Detailing (eg upstands) is carried out in accordance with the Certificate holder's instructions.

13 Site and surface preparation

13.1 Substrates on which the system is to be applied must be properly prepared in accordance with the Certificate holder's instructions.

13.2 Adhesion to substrates will depend on the condition and cleanness of the substrate. Substrates must be visibly dry, sound and free from loose materials or contamination (eg moss or algae).

13.3 The surface must be prepared to remove loose or flaking materials. Areas of corrosion on metal sheets are treated in accordance with the Certificate holder's instructions.

13.4 Damaged areas of the substrate must be repaired in accordance with the with section 15 of this Certificate and the Certificate holder's instructions.

13.5 Deck surfaces must be free from sharp projections.

13.6 When installing over bolt and fixing heads a patch of Sika Flexistrip is applied over the head in accordance with the Certificate holder's instructions.

13.7 Priming requirements of the substrate should be checked and carried out in accordance with the Certificate holder's instructions.

14 Procedure

14.1 Application can be by brush, roller or airless spray. Brush application is normally used only for small roof areas.

14.2 Prior to application, checks must be made to ensure the substrate is dry (ie free from rainwater, surface condensation and frost) and that the prevailing weather and site conditions are acceptable. The following limitations apply:

- application must not take place when the relative humidity is in excess of 95%, or in fog. The temperature/humidity must be such that there is no risk of surface condensation occurring before or during application
- air and substrate temperatures must be in excess of 5°C
- Sikalastic -625N is conditioned at a temperature of 10°C or greater, for use in airless spray applications
- the primer, where used, must be cured prior to application of Sikalastic -625N
- the wind speed must be such that it does not interfere with the application or cause overspray. No attempt to spray should be made if the wind speed exceeds $6.7 \text{ m}\cdot\text{s}^{-1}$ (15 mph), unless precautions such as the use of wind barriers are taken.

14.3 Only areas that can be applied to the full thickness before weather changes occur should be attempted.

14.4 The system is applied at the coverage rate for a smooth texture substrate given in Table 1. The advice of the Certificate holder on coverage rates for intermediate, rough, porous and undulating substrates must be sought. When using Sika Flexistrip, this is embedded in the first coat while the membrane is still wet. Once the first coat is partially cured the second coat is applied.

Layer (unit)	Localised reinforcement system
Base coat (l·m ⁻²)	0.5
Top coat (l·m ⁻²)	0.5
Finished thickness (mm)	0.7

15 Repair

Minor damage can be repaired by cleaning back to the unweathered material and recoating the damaged area with the membrane at the appropriate application rate stated in section 14.4.

Technical Investigations

16 Tests

Tests were carried out and the results assessed to determine:

- water vapour transmission
- resistance to water penetration
- tensile strength and elongation
- static indentation at 23 and 80°C
- dynamic indentation at -20 and 20°C
- resistance to fatigue cycling
- UV ageing for 10 year equivalent, followed by dynamic indentation
- heat ageing for 10 year equivalent, followed by dynamic indentation and fatigue cycling
- water exposure for 10 year equivalent, followed by static indentation.

17 Investigations

17.1 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.

17.2 Data on fire performance were evaluated.

17.3 Tensile bond strength properties were assessed.

Bibliography

BS 6229 : 2018 *Flat roofs with continuously supported flexible waterproof coverings — Code of practice*

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

BS 8000-4 : 1989 *Workmanship on building sites — Code of practice for waterproofing*

BS EN 13501-5 : 2016 *Fire classification of construction products and building elements — Classification using data from external fire exposure to roofs tests*

BS EN ISO 9001 : 2015 *Quality management systems — Requirements*

BS EN ISO 14001 : 2015 *Environmental management systems — Requirements with guidance for use*

DD CEN/TS 1187 : 2012 *Test methods for external fire exposure to roofs*

EAD 030350-00-0402 *Liquid Applied Roof Waterproofing Kits*

18 Conditions

18.1 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.

18.2 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.

18.3 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.

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

18.5 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.

18.6 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.