Sika Limited

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Agrément Certificate 21/5942

Product Sheet 1

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SIKA LIQUID-APPLIED WATERPROOFING SYSTEMS

SIKALASTIC -800 HA LIQUID APPLIED WATERPROOFING SYSTEM

This Agrément Certificate Product Sheet⁽¹⁾ relates to the Sikalastic⁽²⁾ -800 HA Liquid Applied Waterproofing System, a two-component, self-levelling, polyurea waterproofing membrane, for use as a damp-proofing and waterproofing membrane on concrete floor slabs.

- (1) Hereinafter referred to as 'Certificate'.
- (2) Sikalastic is a registered trademark.

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

Resistance to water and water vapour — the system provides an effective barrier to the passage of water under hydrostatic pressure and water vapour from the ground (see section 6).

Resistance to mechanical damage — the system will accept the limited foot traffic and loads associated with installation and in service (see section 7).

Durability — under normal service conditions, the system will provide an effective barrier to the transmission of moisture for the life of the structure in which it is incorporated (see section 9).

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 First issue: 4 November 2021

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 MUST check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly.

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, Sikalastic -800 HA Liquid Applied Waterproofing 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: Comment: C2(a) Resistance to moisture

The system will enable a structure to satisfy this Requirement. See section 6.1 of this

Certificate.

Regulation: 7(1) Materials and workmanship

Comment: The system is acceptable. See section 9 and the *Installation* part of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation: 8(1) Durability, workmanship and fitness of materials

Comment: The system satisfies the requirements of this Regulation. See section 9 and the

Installation part of this Certificate.

Regulation: 9 Building standards applicable to construction

Standard: 3.4 Moisture from the ground

Comment: The system will enable a structure to satisfy the requirements of this Standard, with

reference to clauses $3.4.1^{(1)(2)}$, $3.4.2^{(1)(2)}$ and $3.4.5^{(1)(2)}$ to $3.4.7^{(1)(2)}$. See section 6.1 of this

Certificate.

Standard: 7.1(a) Statement of sustainability

Comment: The system can contribute to satisfying 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) Fitness of materials and workmanship

Comment: (b)(i) The system is acceptable. See section 9 and the Installation part of this Certificate.

Regulation: 28(a) Resistance to moisture and weather

Comment: The system will enable a structure to satisfy the requirements of this Regulation. See

section 6.1 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* (3.2 to 3.4) of this Certificate.

Additional Information

NHBC Standards 2021

In the opinion of the BBA, the Sikalastic -800 HA Liquid Applied Waterproofing System, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Chapter 5.1 *Substructure and ground-bearing floors*, Clause 5.1.20 *Damp proofing concrete floors*, Chapter 5.4 *Waterproofing of basements and other below ground structures*, and Technical Requirement R3.

Where Grade 3 protection is required, and the below ground wall retains more than 600 mm (measured from the top of the retained ground to the lowest finished floor level), the system should be used in combination with either a Type B or C waterproofing protection.

In addition, in the opinion of the BBA, the system when installed and used in accordance with this Certificate can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards for Conversions and Renovations*, taking account of other relevant guidance within the chapter and the suitability of the substrate to receive the system.

Technical Specification

1 Description

- 1.1 The Sikalastic -800 HA Liquid Applied Waterproofing System is a two-component, self-levelling, solvent-free, polyurea-based waterproofing membrane.
- 1.2 The system comprises the following components:
- Sikalastic -800 HA a two-component, low odour, hand-applied polyurea-based waterproofing membrane
- Sikalastic Primer-01 a two-component primer for use on cementitious substrates prior to the application of Sikalastic -800 HA
- Sika Concrete Primer a two-part, rapid curing polyurea based primer for use on cementitious substrates prior to application of Sikalastic 800HA for use at air and substrate temperatures between 5 and 30°C
- Sikafloor 151 a two-part epoxy primer for use on cementitious substrates prior to the application of Sikalastic 800HA for use at air and substrate temperatures between 10 and 30°C.
- 1.3 Other products⁽¹⁾ which may be used with the system, but which are outside the scope of this Certificate, include:
- specialist primers
- extenders/thixotropy additives
- waterstops
- specialist sealants
- drainage boards
- protection boards
- concrete repair systems
- cleaning solvents and biowashes.
- $\hbox{(1)} \quad \hbox{Details of suitable products may be obtained from the Certificate holder}.$

2 Manufacture

- 2.1 The system components are manufactured by batch blending processes.
- 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 systems of the manufacturer have been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 by SGS (Certificate CH18/1439.00).

3 Delivery and site handling

- 3.1 The components are delivered to site in sealed containers, with each component packed separately in the specified mix proportions. Each pack is labelled with the Certificate holder's name, product name, component identification, batch number, date of manufacture/expiry date and health and safety information.
- 3.2 The system components are available in the pack weights given in Table 1.

Table 1 Pack weights and storage life			
Component	Packaging type	Pack weight (kg)	Shelf life (months)
Sikalastic -800 HA Part A + B (composite pack)	Metal drums	25	12
Sikalastic Primer -01 Part A + B (composite pack)	Metal cans	4.73 and 12.08	12
Sika Concrete Primer Part A + B (Composite packs)	Metal cans	11.5	12
Sikafloor -151			
Part A + B (Composite packs)	Metal cans	30	24
Part A	Drums	255	
Part B	Drums	180	

- 3.3 The system components should be stored in cool, dry conditions in unopened sealed containers away from chemicals and sources of ignition. When stored in accordance with the Certificate holder's instructions, the components will have the shelf live detailed in Table 1.
- 3.4 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 -800 HA Liquid Applied Waterproofing System.

Design Considerations

4 General

- 4.1 The Sikalastic -800 HA Liquid Applied Waterproofing System is satisfactory for use in sandwich constructions as a damp-proofing membrane for solid ground floor concrete slabs in accordance with the relevant requirements of CP 102: 1973 Section 3, and as a fully bonded Type A waterproofing protection as defined in BS 8102: 2009.
- 4.2 The system can be used to provide an effective barrier to the transmission of liquid water where Grades 1 to 3 waterproofing protection is required, as defined in Table 2 of BS 8102 : 2009.

- 4.3 Where Grade 3 waterproofing protection is required, the environment must also be controlled by ventilation, dehumidification and/or air conditioning, as appropriate, to ensure that dampness does not occur.
- 4.4 The system must be used in conjunction with a compatible waterproofing system suitable for use to waterproof vertical construction elements. The Certificate holder must be consulted for suitable products/systems.
- 4.5 Detailing requirements (eg at service penetrations, movement joints) must be evaluated on a case-by-case basis. The Certificate holder must be consulted for details for a particular application.

5 Practicability of installation

The system is installed by installers approved by the Certificate holder.

6 Resistance to water and water vapour



The system will adequately resist the passage of water under hydrostatic pressure and moisture from the ground and enable a structure to comply with the requirements of the national Building Regulations.

7 Resistance to mechanical damage

- 7.1 The system can be punctured by sharp objects such as tools and sharp stones, and additional protection must be used prior to trafficking the system. Vehicular traffic must be avoided.
- 7.2 Provided sufficient care is taken, the system will not be damaged by normal foot traffic.
- 7.3 The system will provide a waterproof layer capable of accepting minor structural movement without damage.

8 Maintenance

As the system is confined between the structure and backfill and has satisfactory durability (see section 9), maintenance is not required. Any damage occurring during construction works must be repaired in accordance with section 12, prior to enclosing in the structure.

9 Durability



When subjected to normal service conditions, the system will provide an effective barrier to the transmission of moisture for the life of the structure in which it is incorporated.

Installation

10 General

- 10.1 Installation of the Sikalastic -800 HA Liquid Applied Waterproofing System must be carried out in accordance with the relevant requirements of CP 102: 1973 Section 3, BS 8102: 2009, BS 8000-0: 2014 and BS 8000-4: 1989, the Certificate holder's instructions and this Certificate.
- 10.2 Concrete structures should be designed and built in accordance with BS EN 1992-1-1: 2004 and its UK National Annex.
- 10.3 Substrates to which the system is to be applied must be sound, clean, free from laitance, dry and free from ice and frost.
- 10.4 The substrate must be free from sharp projections such as nail heads and concrete nibs. Power floated concrete must be shot blasted or mechanically abraded to help ensure the primer can penetrate into the surface. The Certificate

holder's advice must be sought as to the suitability of the substrate to receive the system and for suitable cleaning procedures, including the use of a proprietary surface cleaner/HSE approved fungicidal wash where required.

- 10.5 Defects such as large cracks must be repaired prior to application of the system in accordance with the Certificate holder's instructions.
- 10.6 The substrate temperatures must exceed the dew-point by more than 3°C during application and curing, and be between +5°C and 30°C.
- 10.7 A minimum curing period of 28 days is normally required before new substrate surfaces are primed. The Certificate holder must be consulted for advice if priming is to be carried out before this period. The Certificate holder's instructions must be observed with respect to maximum moisture content levels in the substrate.
- 10.8 The concrete should have a minimum compressive strength of 25 N·mm⁻², with a minimum pull off strength of 1.5 N·mm⁻².
- 10.9 Previously coated areas must be checked for integrity and adequate adhesion to the substrate. Adhesion checks must be carried out to ensure that the system is compatible with the existing surface. The Certificate holder must be consulted for details of suitable test methods and requirements before use. If the substrate requires preparing after bond testing, the appropriate methods (such as high pressure washing, captive shot blasting or other mechanical abrasive methods) can be used. Advice must be sought from the Certificate holder.
- 10.10 To assess the suitability of a substrate to receive the system, bond tests should be carried out generally in accordance with BS EN 1542: 1999, in consultation with the Certificate holder. If bonding problems occur, advice should be sought from the Certificate holder.
- 10.11 The system build-up specification is detailed in Table 2.

Table 2 Sikalastic -800 HA Liquid Applied Waterproofing System – build-up specification			
Product	Application rate (kg·m ⁻²)		
Sikalastic Primer-01	$0.15 - 0.2^{(1)}$		
Sika Concrete Primer	0.35(1)		
Sikafloor 151	0.35(1)		
Sikalastic -800 HA waterproofing membrane	≥ 2.5 ⁽²⁾		

- (1) Typical coverage rate per coat. Actual coverage will depend on surface roughness and porosity of the concrete.
- (2) To achieve a dry film thickness of \geq 2.0 mm.
- 10.12 Following installation, the treated surface must be tested using a non-destructive test, eg holiday test, before the system is enclosed by backfilling. Damaged areas must be repaired in accordance with section 12.
- 10.13 The membrane must be protected with a suitable protection board prior to backfilling. The Certificate holder should be consulted for suitable products.

11 Procedure

Priming

- 11.1 Primers must be prepared and mixed in accordance with the Certificate holder's instructions using a suitable slow speed drill fitted with a suitable mixing paddle.
- 11.2 The mixed primer is applied to the prepared substrate using a short-piled roller or brush.
- 11.3 If necessary, a second coat of primer should be applied to ensure that a continuous pore-free primer film is achieved.
- 11.4 The primer coat must be allowed to dry prior to overcoating with Sikalastic -800 HA waterproofing membrane, ensuring that any minimum/maximum drying times are observed in accordance with the Certificate holder's instructions.

Sikalastic -800 HA waterproofing membrane

- 11.5 Prior to mixing the components together, Part A should be mechanically mixed until homogenous. Part A is then added to Part B and mixed for two minutes until a uniform mix is achieved. To ensure thorough mixing, the mixed product should be poured into another suitable container and mixed again to achieve a consistent mix but taking care to minimise air-entrainment.
- 11.6 Sikalastic -800 HA waterproofing membrane is then hand-applied using a suitable roller or squeegee to achieve a minimum dry film thickness of 2 mm.
- 11.7 At day joints, a 100 mm overlap of new material over clean existing membrane should be ensured.
- 11.8 Once installed, the membrane should be inspected, including the use of an appropriate integrity test agreed with the Certificate holder. Any damage to the membrane must be repaired in accordance with section 12.

12 Repair

- 12.1 Any damage to the system must be repaired as soon as possible to ensure that the integrity of the waterproofing is maintained.
- 12.2 Minor damage to the system can be repaired by removing loose material, by abrading the surface of the affected and surrounding area to allow an overlap of 100 mm of fresh material onto sound and well-bonded coating. The system is then reinstated to the original specification.

Technical Investigations

13 Tests

Tests were carried out and the results assessed to determine:

- water vapour transmission
- resistance to water penetration
- tensile bond strength
- resistance to static indentation
- resistance to dynamic impact
- resistance to fatigue movement after heat ageing
- · effect of heat ageing
- effect of exposure to hot water.

14 Investigations

- 14.1 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.
- 14.2 Existing test data was reviewed relating to:
- water vapour permeability
- tensile strength and elongation
- resistance to fatigue movement
- characterisation by infra-red spectroscopy, viscosity and density.

Bibliography

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 8102: 2009 Code of practice for protection of below ground structures against water from the ground

BS EN 1992-1-1: 2004 + A1: 2014 Eurocode 2: Design of concrete structures — General rules and rules for buildings

NA + A2 : 14 to BS EN 1992-1-1 : 2004 + A1 : 2014 UK National Annex to Eurocode 2: Design of concrete structures — General rules and rules for buildings

BS EN ISO 9001: 2015 Quality management systems — Requirements

CP 102: 1973 Code of practice for protection of buildings against water from the ground

Conditions of Certification

15 Conditions

15.1 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.

15.2 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.

15.3 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.

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

15.5 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.

15.6 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.