

Sikalastic®-625

Single component high performance waterproof coating system

Product Description

Sikalastic®-625 is a single component, cold-applied, moisture-triggered polyurethane membrane. It cures to form a seamless, durable and weather-resistant waterproofing solution for exposed roof areas.

Uses

- Water-proofing of flat and pitched roof structures
 - For new construction and refurbishment projects
 - Applicable to existing concrete, roofing felt, brickwork, asbestos cement decks (subject to condition and priming requirements)
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Characteristics / Advantages

- Single component, ready to use
 - Cold applied
 - Easy and quick application – by spray, brush or roller
 - Economic – provides a cost efficient life cycle extension of failing roofs
 - Seamless membrane based upon moisture-triggered chemistry
 - Vapour permeable
 - Retains flexibility at low temperatures
 - Fast curing, develops early rain resistance
 - Minimal disruption and low maintenance
 - Elastic properties – tolerant of thermal movement
 - Flexible, impact resistant membrane
 - Can be applied all year round above 2°C
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Tests

Approvals / Standards

- European Technical Approval No. ETA - 13/0788
 - External fire performance: BRoof (t4) & classification under BS476 Part 3:2004 EXT.F.AC allowing unrestricted use under the current building regulations. For more information please contact Technical Services.
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Product Data

Form

Appearance

Pigmented liquid
RAL 7032 (Pebble Grey), RAL 7042 (Cement Grey), RAL 7035 (Light Grey)
RAL 9016 (White). See Notes on Application Section

Packaging

15 litres

Roofing



Storage

Storage Conditions / Shelf Life

Store in original, unopened and undamaged sealed packaging in dry conditions at temperatures $>0^{\circ}\text{C}$ and $< 25^{\circ}\text{C}$. Protect from frost.

A shelf-life of 6 months is achieved when stored in accordance with the above recommendations at a temperature of 20°C . Exposure to higher temperatures will reduce the shelf-life.

Reference should also be made to the storage recommendations of the material safety datasheet.

Technical Data

Chemical Base

One-component moisture-triggered polyurethane

Density

1.32 kg/L ($+20^{\circ}\text{C}$)

(EN ISO 2811-1)

Solid Content

~ 70.9 % by volume / ~ 78.9 % by weight

(EN ISO 3251)

Flash Point

~ 52°C

(EN ISO 3679)

Service Temperature

-30 to $+80^{\circ}\text{C}$ (intermittent)

Resistance

Chemical Resistance

Resistant to mild acids, alkalis, detergents and some solvents. More details are available on request. Contact Technical Customer Services for specific recommendations.

Prohesion testing to ASTM G85-94; Annex A5 (1000 hours cyclic exposure) and cyclic salt fog/UV-A exposure to ASTM D 5894 (6 cycles totalling 1000 hours).

System Information

Minimum Coverage Rates

Waterproofing Only -

Preparation	Prior to priming all substrates must be clean dry and sound free from any oxidisation, mould and any other deleterious materials. For further information please contact technical services	
Embedment Layer	Sikalastic®-625	1.0 L/m ²
	Sika Reemat Premium	
Top Coat	Sikalastic®-625	1.0 L/m ²

Gutter system	<p>Apply an initial embedment coat of Sikalastic®-625 to the prepared, sound gutter surfaces, using a minimum quantity of 1 litre per square metre (equivalent to a maximum spread rate of 1 square metre per litre) and whilst wet, strengthen by inserting Sika Reemat Premium glass fibre matting,</p> <p>First Top Coat: Apply a coat of Sikalastic®-625 to these reinforced areas by roller (brushes may be used for detail work) using a minimum quantity of 1 litre per square metre (equivalent to a maximum spread rate of 1 square metre per litre).</p> <p>Second Top Coat: Apply a coat of Sikalastic®-625 to these reinforced areas by roller (brushes may be used for detail work) using a minimum quantity of 1 litre per square metre (equivalent to a maximum spread rate of 1 square metre per litre).</p>
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Note: The application of the system must be approached as one operation. Always plan for reasonable progress of each coat. Work only so far in advance that the existing surface can be overcoated as the next operation. Finish the coating system completely before progressing to the next area. The ideal time between coats is within 48 hours.

It is not good practice to plan breaks between coats of more than 7 days. For periods longer than this and less than 14 days the surface must be reactivated with Sika Reactivation Primer. Periods between coats longer than 14 days may affect the normal life term of the system –If this happens consult Sika Liquid Plastics for advice. Ensure each application/coat is clean and dry prior to overcoating

At no stage should the Sika Liquid Plastics system or waterproof coating in its finished or intermediate stage be used as a workspace or access floor without adequate protection.

Please note: the above rates are for smooth substrates only.

Typical Test Data - System

Dry Film Thickness (mm)	1.5	
Tensile Strength (N/mm²)	16.7	N ISO 527 – 1/3
Tear Strength (N/30mm)	550	
Tensile Elongation (%)	20	EN ISO 527 – 1/3
Tear Strength (N/mm)	20	
Tear Force (N)	30	

Application Details

Substrate Quality



Cementitious substrates

New concrete should be cured for at least 28 days* and should have a pull off strength $\geq 1.5 \text{ N/mm}^2$. Inspect the concrete, including upstands, all areas should be hammer tested. Concrete must be suitably finished, preferably by wood float or steel pan. A power float finish is acceptable where the surface is prepared to avoid laitance (a tamped finish is not acceptable). The surface finish must be uniform and free from defects such as laitance, voids or honeycombing. The substrate must be of a suitable quality and condition to receive the system. Please refer to specification for further details.

*unless using DTE primer – see DTE Primer Technical Datasheet for further details

Brick and stone

Bricks, blocks and mortar joints must be sound and preferably flush pointed.

Slates, tiles, etc.

Ensure all slates/tiles are sound and securely fastened, replacing obviously broken or missing sections

Asphalt

Asphalt contains volatiles which can cause bleeding and slight non-detrimental staining. The asphalt must be carefully assessed for moisture and/or air entrapment, grade and surface finish prior to any coating works being carried out

Bituminous felt

Ensure that bituminous felt is firmly adhered or mechanically fixed to the substrate. Bituminous felt should not contain any badly degraded areas.

Metals

Metals must be in sound condition

Timber substrates

Timber and timber based panel roof decks are to be well constructed, in good condition, firmly adhered, and with sufficient fixings for the nature and location of the site

Paints/Coatings

Ensure the existing material is sound and firmly adhered.

Existing Sikalastic®-625 Systems

The existing Sikalastic®-625 System should still be soundly adhered to the substrate.

Substrate Preparation

Cementitious substrates

Laitance, other loose friable material and weak concrete must be completely removed and surface defects such as blowholes and voids must be fully exposed. In severe cases use abrasive blast cleaning, grinding or scarifying equipment to achieve a sound surface.

Repairs to the substrate, filling of joints, blowholes/voids and surface levelling must be carried out using appropriate products.

High spots must be removed e.g. by grinding.

Outgassing is a naturally occurring phenomenon of concrete that can produce pinholes in subsequently applied coatings. The concrete must be carefully assessed for moisture content, air entrapment, and surface finish prior to any coating work. Any requirement for priming must also be considered. Installing the membrane either when the concrete temperature is falling or stable can reduce outgassing. It is generally beneficial, therefore, to apply the embedment coat in the late afternoon or evening

Brick and stone

Thoroughly clean by power wash and allow to dry. Where there is a risk of algal re-growth on absorbent surfaces use Sika Biowash. Please refer to the Sika Biowash Technical Datasheet for further information. Repair any spalling, flaking or other damage and replace any missing jointing.

Asphalt

Thoroughly clean by power wash and allow to dry. All major cracks should be sealed to allow continuity of the Sikalastic-625 System. Asphalt must be carefully assessed for moisture and/ or air entrapment, grade and surface finish prior to any coating works being carried out. Any priming requirement must also be considered

Bituminous felt

Thoroughly clean by power wash and allow to dry. Treat blisters by star cutting and removing any underlying water. Allow to dry and re-adhere using Decostik®. Badly degraded areas should be replaced with Carrier Membrane bonded in Decostik®.

Single ply

Various types of single ply sheeting can be coated. For further information please consult Liquid Plastics Technical Services team.

Bituminous coatings

Remove loose, degraded, tacky or mobile coatings. Apply the Sikalastic 625 System directly.

Metals

Steelwork is ideally prepared to Sa2½ (Swedish Standard SIS 05: 5900 = 2nd quality BS4232 = S.S.P.C. grade SP10) OR as indicated by the blasting specification which may be of a higher standard. Where blasting to Sa2½ (Swedish Standard SIS 05: 5900 = 2nd quality BS4232 = S.S.P.C. grade SP10) is not permitted alternative blast media or clean metal preparation by pin hammer, etc. is acceptable. Less effective methods of preparation that leave corrosion in-situ may reduce expected life term.

Non-ferrous metals are prepared as follows. Remove any deposits of dust and oxidation and abrade to bright metal. Wire brushing can be used for soft metal such as lead. The surface must be clean and free from grease which, if present, must be removed with a proprietary solution. Wash with detergent, rinse and dry

Timber substrates

Timber and timber based panel roof decks require a complete layer of Carrier Membrane SA prior to the application of the chosen system. The substrate should then be treated as a felt roof. Small timber protrusions may be treated directly, provided that the timber is of exterior quality, e.g. marine plywood, (see Substrate Priming for further information).

Paints/Coatings

Remove loose or degraded coatings returning to a firm, feathered firm edge. Remaining coatings can only be overcoated if soundly adhered. Ensure the surface is clean and free from grease.



Existing Sikalastic®-625 Systems

Clean the membrane using a water jet at approximately 14N/mm² (2000 p.s.i) using detergent and rinse thoroughly. Thoroughly clean by power wash and allow to dry.

Note: For the Waiting Time/Overcoating please refer to the technical datasheet of the appropriate cleaner/primer. Other substrates must be tested for their compatibility. If in doubt, apply a test area first.

Substrate Priming

Substrate	Primer
Cementitious Substrates	Quick Cure Primer; Damp Tolerant Epoxy Primer or Sika® Bonding Primer, subject to surface assessment tests
Brick and Stone	Not required
Slate, tiles etc.	Not required
Asphalt	Not required, subject to surface assessment tests
Bituminous Felt	Not required
Single Ply	Adhesion to single ply may vary depending on type, age, etc. Consult Sika Liquid Plastics for further advice on priming requirements.
Bituminous Coatings	Not required
Metals	Sikalastic® Metal Primer
Timber Substrates	Timber based roof decks require a layer of Carrier Membrane. For small areas of exposed timber (i.e. upstands) use Sika Bonding Primer or Quick Cure Primer, (exposed timber should be Marine ply to BS 1088 or equivalent).
Paints	Subject to adhesion tests, Sika Bonding Primer or Metal Primer for aluminium based solar reflective coatings
Existing Sikalastic-625	Sika Reactivation Primer
Carrier Membrane SA	Not required

Note: For the Waiting Time / Overcoating you should refer to the technical datasheet of the appropriate cleaner. Other substrates must be tested for their compatibility. If in doubt, apply a test area first.

Application Conditions / Limitations



Substrate Temperature +2 °C min. / +30 °C max.

Ambient Temperature +2 °C min. / +30 °C max.

Substrate Moisture Content Surfaces must be dry and not at risk of condensation forming.
 Please note: Reference should also be made to the appropriate primer technical datasheet.

Relative Air Humidity 20% min. / 85% max.

Dew Point Beware of condensation. Surface temperature during application and cure must be a minimum of 3°C above dew point.
 Please note: metal surfaces will be more prone to temperature fluctuations occurring and wind chill effects.

Application Instructions

Mixing Gently stir the Sikalastic®-625 before use.

Application Method Apply Sikalastic®-625 using a roller (short pile mohair roller), brush (soft nylon or bristle brush).

Cleaning of Tools Clean all tools and application equipment with proprietary cleaning solvent immediately after use. Flush/wash equipment with cellulose thinners or xylene.

Pot Life The material in opened containers should be applied immediately as a surface film formation will happen within 1 - 2 hours.

Curing Details

Applied Product ready for use

Temperature	Relative humidity	Rain resistant	Touch dry	Full cure
+2°C	50%	12 hour	20 hours	>24 hours
+10°C	50%	9 hour	15 hours	24 hours
+20°C	50%	6 hour	10 hours	18 hours

Note: Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.



**Notes on Application /
 Limitations**

Do not use Sikalastic®-625 for indoor applications.

Do not apply close to the air intake vent of a running air conditioning unit.

Substrate preparation is crucial to ensure durability. Please follow the instructions in the technical datasheet of the corresponding Primer and pretreatment.

Applications of Sikalastic®-625 in confined spaces must be undertaken in accordance with material safety datasheet recommendations.

Do not apply close to the air intake vents of running air conditioning units until either switched off or isolated as vapour may be drawn into the building.

All areas requiring anticorrosive protection must be installed over an appropriate metal primer that has been applied directly to bright metal.

All joints; areas subject to differential movement; guttering and drainage channels; and repairs; must be treated with local reinforcement.

Adhesion suitability must be verified practically on site prior to commencing contract. Refer to Sika Liquid Plastics recommendations and this Technical Data Sheet for installation guidance.

This document provides the most up to date information at the time of print, but is subject to change without notice and should not be used in isolation for pricing purposes. Please refer to Sika Liquid Plastics for project specific information and the latest advice.

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Value Base

All technical data stated in this Product Data Sheets are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

**Health and Safety
 Information**

For information and advice on the safe handling, storage and disposal of chemical products, please refer to the most recent Material Safety Data Sheet.



Disclaimer

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

General Information

Specification assistance NBS is the industry standard specification system, which allows architects, specifiers and engineers to insert clauses into specifications by manufacturer and product, making the process quicker and more efficient. We are members of NBS Plus and therefore detailed up-to-date product information is readily available to create accurate specifications.

Contact Details

For further information please contact:

Sika Liquid Plastics

Sika House

Miller Street

Preston

Lancashire

PR1 1EA

Enquiry line: +44 (0)1772 259781

Fax: +44 (0)1772 255670

e-mail: liquidplastics@uk.sika.com

website: www.liquidplastics.co.uk

Registered office: Sika Ltd, Watchmead, Welwyn Garden City, Hertfordshire, AL7 1BQ
Registered in England: 226822

Roofing



Sikalastic®-625

