

PRODUCT DATA SHEET

Sikalastic®-610 R IN

Pure polyurethane based high performance liquid waterproofing membrane

DESCRIPTION

Sikalastic®-610 R IN is a one-part, elastic, cold applied, moisture-cured pure polyurethane based waterproofing membrane that can be applied directly from the container. The product provides a seamless, smooth, durable and chemical resistant, waterproofing finish for flat roofs and with primer and topcoat.

USES

- For roof waterproofing solutions in both new construction and refurbishment projects
- For roofs displaying complex detail areas, even when accessibility is limited
- For cost efficient life cycle extension of failing roofs
- For waterproofing underneath tiles bonded with adhesives on balconies and terraces
- For roof waterproofing on top of bitumen membranes or polyurethane foams
- For waterproofing applications in green roofs and planters

CHARACTERISTICS / ADVANTAGES

- 1-part, ready to use
- Easy application by squeegee, brush, roller or airless spray
- Seamless
- Resistant to water and frost
- Root resistant
- Cold applied - requires no heat or flame
- High solids content
- Crack-bridging even at lower temperatures
- Vapour permeable
- Good weathering and thermal resistance
- Suitable for various substrates
- Wide service temperature range
- Resistant to detergents, oils, seawater and domestic chemicals
- Easy repair and maintenance
- Good durability

PRODUCT INFORMATION

Chemical base	Aromatic pure polyurethane
Packaging	25 kg container
Shelf life	9 months from date of production
Storage conditions	The product must be stored properly in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C. Protect from moisture and direct sunlight. Higher storage temperatures may reduce shelf life of product.
Appearance / Colour	Viscous Liquid / Grey or White
Density	1.30 ± 0.1 kg/L (+27 °C)
Solid content by weight	> 80 % (ASTM C836)

TECHNICAL INFORMATION

Shore A hardness	~50	(ASTM D2240)
Resistance to root penetration	No penetration	(UNE 53420)
Tensile strength	~2.2 N/mm ²	(ASTM D412)
Elongation at break	~500 %	(ASTM D412)
Crack bridging ability	Up to 2 mm	
Tensile adhesion strength	~1.5 N/mm ²	(ASTM D4541)
Service temperature	-20 °C min. / +80 °C max.	
Water absorption	~0.2 %	
Water tightness	No leakage	(DIN EN 1928)
Permeability to water vapour	~25 g/m ² ·24h	(ISO 9932)
Chemical resistance	Good resistance to acidic and alkali solutions (5 %), detergents, seawater, and oils.	

SYSTEM INFORMATION

System structure

Waterproofing without reinforcement

- For detailed system build up, please refer to table below

Coating system	Product	Consumption
Primer coat	Sikalastic®-10 Primer EP / Sikalastic®-11 Primer W + broadcast Sika® Quartz 02 IN	Refer respective primer PDS ~0.8 kg/m ²
Base coat	Sikalastic®-610 R IN	~0.7 kg/m ²
Top coat	Sikalastic®-610 R IN	~0.6 kg/m ²
(Optional) Seal coat	Sikalastic®-610 R IN	~0.6 kg/m ²

Waterproofing with reinforcement (Sika® Fabric-50 or Sika® Reemat Premium-225)

- Sika® Fabric-50 or Sika® Reemat Premium-225 is applied at areas with movements, irregular substrate or to bridge cracks, joints and seams on the substrate as well as for details.
- For detailed system build up, please refer to table below

Coating system	Product	Consumption
Primer coat	Sikalastic®-10 Primer EP / Sikalastic®-11 Primer W + broadcast Sika® Quartz 02 IN	Refer respective primer PDS ~0.8 kg/m ²
Base coat	Sikalastic®-610 R IN	~0.7 kg/m ²
Reinforcement	Sika® Fabric-50 or Sika® Reemat Premium-225	-
Top coat	Sikalastic®-610 R IN	~0.60 kg/m ²
(Optional) Seal coat	Sikalastic®-610 R IN	~0.60 kg/m ²

Protection layer

- Apply one or two layers of aliphatic overcoat from the Sikalastic® range over the Sikalastic®-610 R IN membrane.
- Alternatively, protect with a protection screed after applying a suitable separation layer.

Note: These figures are theoretical and do not include for any additional material required due to surface porosity, surface profile, variations in level and wastage

APPLICATION INFORMATION

Consumption	1.2–1.8 kg/m ² applied in two or three layers. Note: The consumption will vary depending on application area, substrate type, substrate roughness, surface profile, absorption of the surface and thickness required.		
Ambient air temperature	+10 °C min. / +40 °C max.		
Relative air humidity	20 % min. / 85 % max.		
Dew point	Beware of condensation. Substrate temperature and uncured material during application must be at least +3 °C above dew point.		
Substrate temperature	+10 °C min. / +40 °C max.		
Substrate moisture content	< 4 % parts by weight The following test methods can be used: Sika®-Tramex meter, CM-measurement or Oven-dry-method. No rising moisture according to ASTM D4263 (Polyethylene-sheet). No water / moisture / condensation on the substrate.		
Waiting time / Overcoating	Base layer	Overcoating layer	Waiting time
	Primer	Sikalastic®-610 R IN	~4 h
	Sikalastic®-610 R IN	Sikalastic®-610 R IN	~12–18 h (max. 48 h)
	Sikalastic®-610 R IN	UV top coat / Screed	~3 d
	Note: Above values are at +30 °C and 50 % relative humidity. The drying time of the coating will be affected by changing ambient conditions particularly temperature and relative humidity. Low temperature and high relative humidity retard curing, while high temperature and low relative air humidity accelerate curing progression.		
Applied product ready for use	Rain resistant	Light traffic	Full cure
	~4 h	~12 h	~24 h
	Note: Above values are at +23 °C and 50 % relative humidity. Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.		

BASIS OF PRODUCT DATA

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

FURTHER DOCUMENTS

Sika Method Statement: Sikalastic®-610 R IN

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

EQUIPMENT

Select the most appropriate equipment required for the project:

Substrate preparation equipment

- Abrasive blast cleaning / planing / scarifying or grinding equipment
- Manual or mechanical wire brushes
- High pressure power washer

For other types of preparation equipment, contact Sika Technical Services.

Mixing equipment

- Electric single or double paddle mixer (300–400 rpm) with spiral paddle

Application equipment

- Brush: Soft bristle
- Roller: Solvent resistant fleece
- Float trowels
- Airless spray

SUBSTRATE QUALITY

The supporting structure must be of sufficient structural strength to apply all new and existing layers of the roof build-up. Complete roof system must be designed and secured against wind uplift loadings. Refer to the Sika Method Statement: Sikalastic®-610 R IN

Suitable substrates:

- Concrete and cementitious substrates
- Metal
- Bituminous sheet membranes
- Bituminous coatings
- Brick
- Unglazed ceramic tiles

SUBSTRATE PREPARATION

Cementitious substrate:

- New concrete should be cured for at least 28 days and should have a pull off strength ≥ 1.5 N/mm².
- Cementitious or mineral based substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and to achieve an open textured surface.
- Loose friable material and weak concrete must be completely removed and surface defects such as blowholes and voids must be fully exposed.
- Repairs to the substrate, filling of joints, blowholes/voids and surface levelling must be carried out using appropriate products from the Sika-floor®, Sikadur® and Sikagard® range of materials.
- High spots must be removed by grinding.

All other substrates:

- All contamination such as dust, loose and friable material that could affect final finish or reduce adhesion, must be completely removed from all surfaces before application of the product or subsequent products, preferably by industrial vacuuming equipment.

MIXING

IMPORTANT

Avoid over-mixing to minimise air entrainment.

1. Product is supplied ready to use. Before application, mix for at least 1 minute or until the liquid is uniform.

APPLICATION

IMPORTANT

Protect from rain

After application, the product must be protected from heavy rain or rain showers until dry to prevent surface damage.

IMPORTANT

Application of successive coats

To prevent a reduction in product performance the following actions are necessary when applying successive coats.

1. Ensure product is totally dry and the surface is without pinholes before applying successive coats.

2. Remove surface water between coating applications.
3. Confirm overcoating times have been achieved between coating applications.

IMPORTANT

No application on rising moisture

Do not apply on substrates with rising moisture.

INSTALLATION PROCEDURE

Reference must be made to further documentation where applicable, such as a relevant method statement, application manual and installation or working instructions.

PRIMER

1. Pour the mixed Product onto the surface. The consumption is specified in the individual primer Product Data Sheet Application Information.
2. Apply the Product evenly over the surface with a brush or fleece roller.
3. Back roll the surface in two directions at right angles with a fleece roller.

The coating is continuous and pore free.

ROOF WATERPROOFING

Base coat

1. Install the detailing first (such as corners, upstands, joints) before installation of the main horizontal surfaces.
2. Pour the mixed Product onto the substrate. The consumption is specified in Application Information.
3. Apply the Product with either a trowel, brush or a fleece roller.
4. **IMPORTANT** Avoid going back to re-work areas that are partially dried as this may damage the surface finish. Back roll the surface in two directions at right angles with a fleece roller.

The coating is continuous and pore free.

Reinforcement application (Optional)

1. For the best results work 1.0 m at a time lengthways applying the 1st coat and embedding the reinforcement.
2. Make sure reinforcement overlaps are greater than 50 mm.
3. Lay the reinforcement onto the wet 1st coat.
4. Use a short pile roller to roll over the reinforcement and resin.

The coating is continuous and pore free.

Top coat

1. Check if the reinforcement is embeded properly, if necessary use sand paper to ensure that the surface is even. If the surface was contaminated with dust or dirt clean the surface with water and light detergent,

- wait until the surface is dry before applying 2nd coat. Remove any standing water before application.
2. Install the detailing first (such as corners, upstands, joints) before installation of the main horizontal surfaces.
 3. Pour the mixed Product onto the substrate. The consumption is specified in Application Information.
 4. Apply the Product with one either a brush or a fleece roller.
 5. **IMPORTANT** Avoid going back to re-work areas that are partially dried as this may damage the surface finish. Back roll the surface in two directions at right angles with a fleece roller.
- The coating is continuous and pore free.

Extra coat (optional for high build applications)

1. Install the detailing first (such as corners, upstands, joints) before installation of the main horizontal surfaces.
 2. Pour the mixed Product onto the substrate. The consumption is specified in Application Information.
 3. Apply the Product with one either a brush or a fleece roller.
 4. **IMPORTANT** Avoid going back to re-work areas that are partially dried as this may damage the surface finish. Back roll the surface in two directions at right angles with a fleece roller.
- The coating is continuous and pore free.

Protective coat

1. Protect the final coat with a UV protection coat or protective screed after applying a separation layer.

CLEANING OF TOOLS

Clean all tools and application equipment with Sika® Thinner C immediately after use. Hardened material can only be removed mechanically.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

LEGAL NOTES

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.

Sika India Pvt. Ltd.
620, Diamond Harbour Road
Commercial Complex II
Kolkata - 700 034
West Bengal, India

Contact:
Phone: +91 33 2447 2448
Fax: +91 33 2397 8688
info.india@in.sika.com
www.sika.in



Product Data Sheet
Sikalastic®-610 R IN
April 2023, Version 02.01
02091520500000110

Sikalastic-610RIN-en-IN-(04-2023)-2-1.pdf