BUILDING TRUST

PRODUCT DATA SHEET

Sika® Igolflex®-301

1-PART ELASTOMERIC BITUMINOUS LIQUID APPLIED MEMBRANE

PRODUCT DESCRIPTION

Sika® Igolflex®-301 is a 1-part, water based, elastomeric bituminous liquid applied membrane for waterproofing against water ingress on horizontal and vertical surfaces.

USES

Waterproofing
- Waterproofing and damp proofing of below and above ground concrete structures to protect against water ingress
- Waterproofing beneath final finishes such as tiles in wet rooms and swimming pools

Coating
- Protecting concrete from aggressive atmospheric gases (CO_2 and SO_2)
- Localised repairs and detailing on slate-treated membranes

CHARACTERISTICS / ADVANTAGES

- Seamless, no joints or seams
- Fully bonded system, prevents water underflow
- Low VOC emissions
- High crack bridging ability
- High elongation
- High adhesion to concrete
- Temporary UV resistance
- Ready to use and easy to apply
- Can be spray applied

APPROVALS / STANDARDS

- CE Marking and Declaration of Performance to EN 1504-2 - Surface protection systems for concrete - Coating
- CE Marking and Declaration of Performance to EN 14891 - Liquid applied water impermeable products for use beneath ceramic tiling bonded with adhesives
- CE Marking and Declaration of Performance to EN 15814 - Polymer modified bituminous thick coatings for waterproofing

PRODUCT INFORMATION

Chemical Base	Synthetic resins, bituminous emulsion, filler and additives.	
Packaging	5, 10 and 20 kg containers Refer to current price list for packaging variations.	
Colour	Black	
Shelf Life	12 months from date of production	
Storage Conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C. Always refer to packaging.	
Density	1,50 ± 0,05 kg/L	(EN 2811-1)
Flash Point	Non flammable	

Solid content by weight	73–82 %	
Volatile organic compound (VOC) content	< 2 g/l	(EN 11890-2)
Viscosity	> 40 Pa·s	

TECHNICAL INFORMATION

Dry film thickness	Without reinforcement	2–3,0 mm	
	With Sika® Igolflex® F-05	2–2,5 mm	
Tensile Strength	Without reinforcement	1,4 ± 0,3 MPa	(ISO 37:2017)
	Reinforced with Sika® Igolflex® F-05:		
	Longitudinal	660 ± 10 N	(EN 12311-2)
	Transversal	650 ± 10 N	(EN 12311-2)
Elongation at Break	Without reinforcement	240 ± 40 %	(ISO 37:2017)
	Reinforced with Sika® Igolflex® F-05:		
	Longitudinal	48 ± 20 %	(EN 12311-2)
	Transversal	50 ± 20 %	(EN 12311-2)
Tensile Adhesion Strength	≥ 2,5 MPa		(EN 1542)
	To glass, steel and wood	≥ 1,0 N/mm²	(EN 14891)
	To concrete:	≥ 1,5 N/mm²	(EN 14891)
Crack Bridging Ability	> 3,5 mm at 20 °C		(EN 14891)
	≥ 1,5 mm at -5 °C		(EN 14891)
	Class CB2	No damage for crack width ≥ 2 mm and dry layer thickness ≥ 3 mm	(EN 15814)
Chemical Resistance	Resistant to aggressive substances in natural ground water and soil. Contact Sika Technical Services for additional information.		
Permeability to Water Vapour	5 m ≤ S_d < 50 m - class II		(EN 7783)
Water Tightness	> 500 kPa		(EN 14891)
Service Temperature	-30 °C min. / +80 °C max.		
Reaction to Fire	Class E		(EN13501-1)

SYSTEM INFORMATION

System Structure

For surfaces >25 m² or for components subject to strain, it is recommended to reinforce the product with Sika® Igolflex® F-05 reinforcement fabric.

Layer	Product
1. Base coat	Sika® Igolflex®-301
2. Reinforcement	Sika® Igolflex® F-05
3. Top coat	Sika® Igolflex®-301

APPLICATION INFORMATION

Consumption

~1,5 kg/m² (wet film ~1,0 mm / dry film ~0,8 mm).
Waterproofing in two layers:
Maximum thickness per layer: 2,0 mm (dry film).
These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.

Ambient Air Temperature	+5 °C min. / +35 °C max.
Relative Air Humidity	80 % r.h. max.
Substrate Temperature	+5 °C min. / +30 °C max.
Substrate Moisture Content	≤ 4 % parts by weight
Curing Time	~4 days at +20 °C Time is approximate and will be affected by substrate, film thickness and changing ambient conditions particularly temperature and relative humidity.
Drying time	~6 hours at +20 °C Time is approximate and will be affected by substrate, film thickness and changing ambient conditions particularly temperature and relative humidity.
Waiting Time / Overcoating	~24 hours at +20 °C Time is approximate and will be affected by substrate, film thickness and changing ambient conditions particularly temperature and relative humidity.

APPLICATION INSTRUCTIONS

EQUIPMENT

Select the most appropriate equipment for all applications required for the project:
- Paintbrush
- Large brush,
- Roller,
- Trowel
- Air less spray equipment

SUBSTRATE QUALITY

Substrate must be uniform, dry or slightly damp, free from dust, loose material, surface contamination, existing coatings, oil, grease and other materials, which could reduce adhesion of the coating.
Suitable substrates: concrete, cementitious, brickwork, ceramic tiles, metal, plaster, plasterboard, wood and polystyrene.

SUBSTRATE PREPARATION

General
All dust, loose and friable material must be completely removed from all surfaces before application of the product and associated system products, preferably by vacuum extraction equipment.
To confirm adequate surface preparation and Sika® Igolflex®-301 adhesion, carry out a small trial before full application together with adhesion tests as required.
Cementitious substrates
Substrate must be sound with a minimum tensile adhesion strength of 1,5 N/mm², clean, dry and free of all contaminants such as dirt, oil, grease, coatings, laitance, surface treatments and loose friable material.
Substrates must be prepared mechanically using suitable substrate preparation equipment to remove cement laitance and achieve an open textured gripping surface profile suitable for the product thickness.
High spots can be removed by grinding.
Weak cementitious substrates must be removed and surface defects such as blow holes 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 Sikafloor®, Sikadur® and Sikagard® range of materials. Products must be cured before applying Sika® Igolflex®-301.
Brickwork
Mortar joints must be sound and preferably flush pointed. Use localised Sika® reinforcement over joints.
Ceramic tiles
Ensure all tiles are securely fixed. Replace any broken, loose or missing sections. Power wash and use Sika® Biowash as required.
Metal
Metals must be in a sound surface condition. Abrade exposed surfaces to a bright metal finish. Use localised Sika® reinforcement over joints and fixings.
Wood
Wood must be in good structural condition, firmly adhered or mechanically fixed.
Other substrates
Must be in good condition, firmly adhered or mechanically fixed.

APPLICATION METHOD / TOOLS

Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions.
Prior to application, confirm substrate moisture content, substrate and air temperatures.
Always start the application with the detailing. Refer to the Sika® Method Statement: Bituminous Liquid Applied Membranes.
Base coat
Apply Sika® Igolflex®-301 onto the prepared substrate (with or without reinforcement) using the appropriate application equipment at the required consumption.
No primer is needed.
Top coat

Unreinforced layer:
Apply after the required waiting time / overcoating requirements using the appropriate application equipment at the required consumption.
Reinforcement layer:
If a reinforcement layer is required, embed reinforcement by applying 'wet on wet' onto base coat using the appropriate application equipment at the required consumption. Ensure overlaps are a minimum of 100 mm.

CLEANING OF TOOLS

Clean all tools and application equipment with water immediately after use. Hardened Sika® Igolflex®-301 can be removed with Sika® Colma - Cleaner.

FURTHER DOCUMENTS

- Sika® Method Statement: Bituminous Liquid Applied Membranes

LIMITATIONS

- Do not apply in the rain.
- After the application, product must be protected from rain, dew, frost and direct sunlight etc. until cured.
- After full cure, product can be exposed to temporary foot traffic.
- Do not use for contact with potable drinking water.
- Additional joint sealing using Sika® Joint Sealing Solutions is recommended for connections, around penetrations and expansion joints.

VALUE BASE

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

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 the exact product data and uses.

ECOLOGY, HEALTH AND SAFETY

Local safety regulations must be observed and it advisable to wear PPI when working with this product with particular attention paid to cutting and handling. Transportation Class: The product is not classified as hazardous good for transport. Disposal: The material is recyclable. Disposal must be according to local regulations. Please contact your local Sika sales organisation for more information.

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.

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