BUILDING TRUST

PRODUCT DATA SHEET

Sika® Igolflex®-301

Elastomeric, 1-part bituminous liquid-applied membrane

PRODUCT DESCRIPTION

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

USES

The Product is used as a waterproofing membrane for:
- Protecting above-ground and below-ground concrete structures against percolating water, dampness and moisture ingress
- Protection under final finishes such as tiles in wet rooms and swimming pools

The Product is used as a coating for:
- Protecting concrete from aggressive atmospheric gases such as CO_2 and SO_2
- Detailing and minor repairs on slate-treated membranes

Please note:
- The Product is not suitable for contact with potable water.
- The Product is not suitable for direct exposure to vehicle traffic or pedestrian traffic.

CHARACTERISTICS / ADVANTAGES

- Impermeable to liquids
- Seamless
- Fully bonded to prevent water underflow
- Low VOC emissions
- Very good crack-bridging ability
- Very good elongation
- Good adhesion to concrete
- Temporarily resistant to weathering and UV exposure
- Easy to apply
- Can be applied by spray

APPROVALS / STANDARDS

- CE marking and declaration of performance based on EN 1504-2:2004 Products and systems for the protection and repair of concrete structures — Surface protection systems for concrete — Coating
- CE marking and declaration of performance based on EN 14891:2012/AC:2012 Liquid-applied water impermeable products for use beneath ceramic tiling bonded with adhesives
- CE marking and declaration of performance based on EN 15814:2011+A2:2014 Polymer modified bituminous thick coatings for waterproofing — Definitions and requirements

PRODUCT INFORMATION

Chemical Base	Synthetic resins, bituminous emulsion, filler and additives
Packaging	5 kg, 10 kg and 20 kg containers
Appearance / Colour	Cured 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.

	Refer to the current Safety Data Sheet for information on safe handling and storage.	
Density	(1.50 ± 0.05) kg/L	(EN ISO 2811-1)
Flash Point	Non-flammable	
Volatile organic compound (VOC) content	< 2 g/L	(EN ISO 11890-2)
Viscosity	> 40 Pa·s	
Solid content by mass	75 %	

TECHNICAL INFORMATION

Dry film thickness	Unreinforced	2.0-2.5 mm	(EN 13501-1)
	Reinforced with Sika® Igolflex® F-05:	2.5-3.0 mm	
Tensile Strength	Unreinforced	(1.4 ± 0.3) MPa	(ISO 37)
	Reinforced with Sika® Igolflex® F-05:		
	Longitudinal (MD)	(660 ± 10) N/50 mm	(EN 12311-1; JIS K 6252-1)
	Transversal (CMD)	(650 ± 10) N/50 mm	
Elongation at Break	Unreinforced	(240 ± 40) %	(ISO 37)
	Reinforced with Sika® Igolflex® F-05:		
	Longitudinal (MD)	(48 ± 20) %	(EN 12311-1; JIS K 6251)
	Transversal (CMD)	(50 ± 20) %	
Tensile adhesion strength	≥ 2.5 MPa		(EN 1542)
	Glass, steel and wood	≥ 1.0 MPa	(EN 14891)
	Concrete	≥ 1.5 MPa	
Crack Bridging Ability	Tested at +20 °C	> 3.5 mm	(EN 14891)
	Tested at -5 °C	> 1.5 mm	
	Class CB 2	No damage (crack width ≥ 2 mm and dry layer thickness ≥ 3 mm)	(EN 15812)
Reaction to Fire	Class E		(EN 13501-1)
Chemical Resistance	Resistant to aggressive substances in natural ground water, soil and seawater. Contact Sika Technical Services for additional information.		
Permeability to Water Vapour	5 m ≤ Sd < 50 m - class II		(EN ISO 7783; JIS A 1404)
Water Tightness	> 500 kPa		(EN 14891)
Service Temperature	Maximum	+80 °C	
	Minimum	-30 °C	

APPLICATION INFORMATION

Consumption

UNREINFORCED COATING

Layer	Product	Consumption
Base coat	1 × Sika® Igolflex®-301	1.5–1.8 kg/m²
Top coat	1 × Sika® Igolflex®-301	1.5–1.8 kg/m²

REINFORCED COATING

Layer	Product	Consumption
Base coat	1 × Sika® Igolflex®-301	1.6–2.0 kg/m²
Reinforcement	1 × Sika® Igolflex® F-05	-
Top coat	1 × Sika® Igolflex®-301	1.6–2.0 kg/m²

Note: Consumption data is theoretical and does not allow for any additional material due to surface porosity, surface profile, variations in level, wastage or any other variations. Apply product to a test area to calculate the exact consumption for the specific substrate conditions and proposed application equipment.

Product Temperature

Maximum	+35 °C
Minimum	+5°C

Ambient Air Temperature

Maximum	+35 °C
Minimum	+5°C

Relative Air Humidity

Maximum	80 % r.h. max.

Substrate Temperature

Maximum	+35 °C
Minimum	+5°C

Substrate Moisture Content

Substrate	Test method	Moisture content
Cementitious substrates	Calcium carbide method (CM-method)	≤ 4 %

No rising moisture (ASTM D4263, polyethylene sheet)
The substrate must be visibly dry with no standing water.

Curing Time

~4 days at +20 °C
Note: Times are approximate and will be affected by changing ambient conditions, particularly temperature and relative humidity. Times are also dependant on layer thickness.

Waiting Time / Overcoating

~24 hours at +20 °C
Note: Times are approximate and will be affected by changing ambient conditions, particularly temperature and relative humidity. Times are also dependant on layer thickness.

Drying time

Touch-dry in ~6 hours at +20 °C
Note: Times are approximate and will be affected by changing ambient conditions, particularly temperature and relative humidity. Times are also dependant on layer thickness.

SYSTEM INFORMATION

System Structure

UNREINFORCED COATING

Layer	Product
Base coat	1 × Sika® Igolflex®-301
Top coat	1 × Sika® Igolflex®-301

REINFORCED COATING

Layer	Product
Base coat	1 × Sika® Igolflex®-301
Reinforcement	1 × Sika® Igolflex® F-05
Top coat	1 × Sika® Igolflex®-301

Use Sika® Igolflex® F-05 in areas with high movement (usually > 25 m²), irregular substrate or to bridge cracks, joints and seams on the substrate as well as for details.

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.

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.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

CEMENTITIOUS SUBSTRATES
The 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. Cementitious substrates must be sound with a minimum tensile adhesion strength of 1.5 N/mm².

1. Remove weak surfaces and fully expose defects such as blow holes and voids.
2. Carry out repairs and surface leveling using appropriate products from the SikaTop®, Sikadur® and Sika MonoTop® range of materials.
3. Allow repair products to fully cure before applying the Product.

Suitable substrates for the Product to be applied to:

- Concrete
- Cementitious mortars
- Brick masonry
- Ceramic tiles
- Metal
- Plastered surfaces
- Plasterboards
- Wood
- Polystyrene

SUBSTRATE PREPARATION

GENERAL

1. Completely remove all dust, dirt, loose and friable material from all surfaces with a brush or vacuum cleaner.
2. Carry out a small test including adhesion tests to confirm adequate surface preparation.

CEMENTITIOUS SUBSTRATES
IMPORTANT
Surface defects due to voids in the substrate
Voids and blow holes in the substrate will weaken the surface and damage the covering Product if not repaired during the preparation process.

1. Fully expose blow holes and voids during surface preparation to identify the required repairs.
1. Remove weak cementitious substrates.
2. Prepare cementitious substrates mechanically using abrasive blast cleaning, abrasive planing or scarifying equipment to remove cement laitance.
3. Before applying coatings, remove high spots by grinding.
4. Use industrial vacuuming equipment to remove all dust, loose and friable material from the application surface before applying the Product.
5. Use products from the Sikafloor®, Sikadur® and Sikagard® range of materials to level the surface or fill cracks, blow holes and voids.

Contact Sika® Technical Services for additional information on products for levelling and repairing defects.
BRICKWORK

1. IMPORTANT Mortar joints must be flush-pointed. If required, rake out and repoint the mortar joints.
2. Replace loose bricks, stone and mortar.
3. Thoroughly clean the surface by power washing with Sika® Biowash and allow to dry.

CERAMIC TILES

1. Securely fix all tiles to the substrate.
2. Replace any broken, loose or missing sections.
3. Thoroughly clean the surface by power washing with Sika® Biowash and allow to dry.

METAL

1. Abrade exposed surfaces to a bright metal finish.
2. Apply localised Sika® reinforcement over joints and fixings.

WOOD

1. Ensure the substrate is firmly adhered or mechanic-

ally fixed and in a good structural condition.

SCREED

1. Apply a Sika® Primer to consolidate and protect the screed.
2. Contact Sika Technical Services for additional information.

OTHER SUBSTRATES

1. Ensure the substrate is firmly adhered or mechanically fixed and in a good structural condition.

APPLICATION

IMPORTANT

Strictly follow installation procedures

Strictly follow installation procedures as defined in Method Statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

IMPORTANT

Exposure to UV or weathering

The Product is not resistant to permanent UV exposure or weathering.

1. Contact Sika Technical Services for detailed advice.

Refer to the following Sika® Method Statement: Method Statement — Bituminous LAM

UNREINFORCED COATING

Preconditions

Prior to application, confirm substrate moisture content, substrate and air temperatures.

1. Apply the first layer of the Product evenly over the surface with a brush, roller, trowel or airless spray equipment. Note For consumption details, see Application Information.
2. Leave the Product for the required waiting time to overcoating. Note For details on waiting time to overcoating, see Application Information.
3. Apply a second layer of the Product evenly over the surface with a brush, roller, trowel or airless spray equipment.

REINFORCED COATING

Preconditions

Prior to application, confirm substrate moisture content, substrate and air temperatures.

1. Apply the first layer of the Product evenly over the surface with a brush, roller, trowel or airless spray equipment. Note For consumption details, see Application Information.
2. IMPORTANT Embedment overlaps must be a minimum of 100 mm. Immediately embed the reinforcement 'wet on wet' into the base coat.
3. Leave the Product for the required waiting time to overcoating. Note For details on waiting time to overcoating, see Application Information.
4. Apply a second layer of the Product evenly over the surface with a brush, roller, trowel or airless spray equipment.

CLEANING OF TOOLS

Clean all tools and application equipment with Sika® Colma Cleaner 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 the 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.

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