BUILDING TRUST

PRODUCT DATA SHEET

Sikafloor®-305 W ESD

2-part polyurethane, water-based, matt, coloured ESD seal coat

PRODUCT DESCRIPTION

Sikafloor®-305 W ESD is a two part water-based, low VOC, polyurethane, coloured, matt ESD seal coat. It is used with the Sikafloor® epoxy and polyurethane flooring systems.

USES

Sikafloor®-305 W ESD installation works to be carried out only by Sika Approved Contractors. Please observe information given by Product Data Sheets.

Sikafloor®-305 W ESD is used as an ESD roller coat for the:
- Sikafloor® MultiDur epoxy range
- Sikafloor® MultiFlex polyurethane range

CHARACTERISTICS / ADVANTAGES

- Very low VOC emissions
- Water-based
- Easy to apply
- Easy to refurbish, topcoat can be recoated
- Very low odour
- Good resistance to UV exposure
- Good yellowing resistance
- Easy to clean and low maintenance
- In accordance with general ESD requirements
- Suitable as floor covering acc. DIN VDE 0100-410 / T610 as top coat for conductive and non-conductive Sikafloor products

ENVIRONMENTAL INFORMATION

- Environmental Product Declaration (EPD) in accordance with EN 15804. EPD independently verified by Institut für Bauen und Umwelt e.V. (IBU)

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 13813:2002 Screed material and floor screeds — Screed material — Properties and requirements — Synthetic resin screed material
- Biological Resistance ISO 846, Sikafloor®-305 W ESD, CSM Fraunhofer, Certificate
- Coating compatibility PV 3.10.7, Sikafloor®-305 W ESD, HQM, Report No. 14-04-142
- Insulation Resistance Sikafloor®-305 W ESD, kiwa, Report No. P 9915-E
- Particle emissions ISO 5, Sikafloor®-305 W ESD, CSM Fraunhofer, Approval No. SI
- Resistance to ground IEC 61340-4, Sikafloor®-305 W ESD, SP, Report No. 5F005664:
- Walking test IEC 61340-4, Sikafloor®-305 W ESD, SP, Report No. 5F005664:B

PRODUCT INFORMATION

Chemical Base	Water-based polyurethane		
Packaging	Container Part A	8.5 kg	
	Container Part B	1.5 kg	
	Container Part A + Part B	10 kg	
	Refer to the current price list for available packaging variations.		
Shelf Life	Part A	6 months from date of production	
	Part B	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.		
Appearance / Colour	Part A	coloured, liquid	
	Part B	yellowish, liquid	
	Cured appearance	matt finish	
Density	Part A	1.40 kg/l	(EN ISO 2811-1)
	Part B	1.16 kg/l	
	Mixed Product	1.36 kg/l	

TECHNICAL INFORMATION

Abrasion Resistance	Cured 14 days at +23 °C	< 119 mg (CS 10 / 1000 / 1000)	(DIN 53109)
Tensile adhesion strength	> 1.5 N/mm² (failure in concrete)		(EN 1542)
Electrostatic Behaviour	Resistance to ground	$R_G < 10^9$ Ω	(IEC 61340-4-1)
	Typical average resistance to ground	$R_G < 10^5$–10^6 Ω	
	Body voltage generation	< 100 V	(IEC 61340-4-5)
	System resistance	$R_G < 10^9$ Ω	
	Note: Measurement results can be affected by ESD clothing, ambient conditions, measurement equipment, cleanliness of the floor and the test personnel.		

APPLICATION INFORMATION

Mixing Ratio	Part A : Part B (by weight)	85 : 15
Consumption	0.18-0.20 kg/m² per layer (after dilution with water)	
Ambient Air Temperature	Maximum	+30 °C
	Minimum	+10 °C
Relative Air Humidity	Maximum	75 % r.h.
Dew Point	Beware of condensation. The substrate and uncured applied product must be at least +3 °C above dew point to reduce the risk of condensation on the surface of the applied product.	
Substrate Temperature	Maximum	+30 °C
	Minimum	+10 °C

Pot Life

+10 °C	50 minutes
+20 °C	40 minutes
+30 °C	20 minutes

Applied Product Ready for Use

Temperature	Foot traffic	Light traffic	Full cure
+10 °C	~48 hours	~5 days	~10 days
+20 °C	~24 hours	~3 days	~8 days
+30 °C	~16 hours	~2 days	~7 days

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

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.

FURTHER DOCUMENTS

Refer to the following method statements:
- Sika Method Statement — Evaluation and preparation of surfaces for flooring systems
- Sika Method Statement — Sikafloor® mixing and application

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.

Regulation (EC) No 1907/2006 (REACH) - Mandatory training

As from 24 August 2023 adequate training is required before industrial or professional use of this product. For more information and a link to the training visit https://irl.sika.com/en/knowledge-hub-sika-ireland/pu-training.html.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

Cementitious substrates must be structurally sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum tensile strength of 1.5 N/mm².

Substrates must be clean, dry and free of contaminants such as dirt, oil, grease, coatings, laitance, surface treatments and loose friable material.

SUBSTRATE PREPARATION

IMPORTANT

Application on epoxy substrates

When applying the Product on an epoxy substrate, the floor must be sanded to secure proper adhesion.

1. Sand the substrate with a 3M Brown Stripper Pad in combination with low-speed automatic scrubbers or rotary floor machines (175 to 600 rpm).

IMPORTANT

Insufficient coating due to uneven or dirty substrates

Uneven or dirty substrates cannot be covered by thin seal coats.

1. Clean the substrate and adjacent areas thoroughly prior to application.
1. Vacuum the substrate to remove all dirt and contamination prior to application.

MIXING

1. Prior to mixing all parts, mix Part A (resin) using an electric single paddle mixer. Mix liquid and all the coloured pigment until a uniform colour and mix has been achieved.
2. Add Part B (hardener) to Part A.
3. Mix Part A + B continuously for ~3 minutes while adding 10 % water until a uniformly coloured mix is achieved.
   Note: Avoid excessive mixing to minimise air entrainment.
4. Leave the Product to stand for 10 minutes before application.

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

Protect from moisture

After application, protect the Product from damp, condensation and direct water contact for at least 24 hours.

IMPORTANT

Damaged finish due to heating with fossil fuel heaters

Fossil fuel heaters powered by gas, oil or paraffin produce large quantities of both carbon dioxide and water vapour, which may adversely affect the finish.

1. For temporary heating, use only electrically powered warm air blower systems. Do not use gas, oil, paraffin or other fossil fuel heaters.

IMPORTANT

Reduced conductivity due to mechanical or chemical damage

Damage to the floor surface can lead to reduced conductivity.

1. Monitor the conductivity of floor regularly
2. In the event of floor wear or damage refresh the Product. This must be co-ordinated with the authorised ESD representative.

Exact colour matching

Note: For exact colour matching, ensure the Product in each area is applied from the same control batch number.

Polishes to reduce aesthetic damage

Note: Tires can cause dark marks to the Product from plasticiser migration. To generally improve the ability to clean the floor the Product can be protected with a polish.

1. Overcoat the floor with a static dissipative floor polish such as Jontec ESD or Jontect Destat

Preconditions

The substrate moisture content, relative humidity and dew point are appropriate for application.

Note: The floor must be divided into sections (at expansion joints or doorways when possible) that can be completed without stopping.

1. Apply the mixed Product in the corners, around columns and other installations by short pile roller.
   Note: Maintain a "wet edge" during application to achieve a seamless finish.
2. Distribute the mixed Product at the correct consumption rate crosswise with a short pile nylon roller.
   Note: Maintain a "wet edge" during application to achieve a seamless finish.

CLEANING OF TOOLS

Clean all tools and application equipment with water 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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