

PRODUCT DATA SHEET

Sikafloor®-305 W ESD

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

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 may only be used by experienced professionals.

Sikafloor®-305 W ESD is used as an ESD roller coat for the:

- Sikafloor® MultiDur epoxy range
- Sikafloor® MultiFlex polyurethane range

Please note:

- The Product may only be used by experienced professionals.

FEATURES

- 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

SUSTAINABILITY

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

CERTIFICATES AND TEST REPORTS

- 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

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|------------------------------|--|-----------------------------------|-----------------|
| Composition | 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 and 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/mm ² (failure in concrete) | | (EN 1542) |
| Electrostatic behaviour | Resistance to ground | $R_G < 10^9 \Omega$ | (IEC 61340-4-1) |
| | Typical average resistance to ground | $R_G < 10^5 - 10^6 \Omega$ | |
| | Body voltage generation | < 100 V | (IEC 61340-4-5) |
| | System resistance | $R_G < 10^9 \Omega$ | |
| Note: Measurement results can be affected by ESD clothing, ambient conditions, measurement equipment, cleanliness of the floor and the test personnel. | | | |
| Chemical resistance | Resistant to many chemicals. Contact Sika technical service for specific information. | | |

SYSTEM INFORMATION

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| Systems | Reference must be made to the following System Data Sheets: <ul style="list-style-type: none">▪ Sikafloor® Multiflex PS-27 ESD▪ Sikafloor® Multiflex PS-32 ESD▪ Sikafloor® Multiflex PS-33 ESD▪ Sikafloor® Multidur ES-39 ESD▪ Sikafloor® Multidur ES-43 ESD▪ Sikafloor® Multidur ES-44 ESD▪ Sikafloor® Multidur ES-46 ESD▪ Sikafloor® Multidur ES-51 ESD▪ Sikafloor® Multidur ES-52 ESD▪ Sikafloor® PurCem® HS-25 ESD▪ Sikagard® WallCoat WS-11 ESD |
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APPLICATION INFORMATION

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|---|---|---------------------|----------------------|------------------|
| Mixing ratio | Part A : Part B (by weight) | | 85 : 15 | |
| Consumption | Sikafloor®-305 W ESD 0.18-0.20 kg/m ² 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 | | |
| Curing time | Before overcoating Sikafloor®-305 W ESD allow: | | | |
| | Substrate temperature | Minimum | Maximum | |
| | +10°C | 2 days | 10 days | |
| | +20°C | 1 day | 8 days | |
| | +30°C | 16 hours | 7 days | |
| Based on RH max. 70 % and good ventilation. Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity. | | | | |
| 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. | | | | |

BASIS OF PRODUCT DATA

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 INFORMATION

Refer to the following method statements:

- Sika Method Statement — Evaluation and preparation of surfaces for flooring systems
- Sika Method Statement — Sikafloor® mixing and application

IMPORTANT CONSIDERATIONS

- Freshly applied Sikafloor®-305 W ESD must be protected from damp, condensation and water for at least 24 hours.
- This product may only be used by experienced professionals
- Do not apply Sikafloor®-305 W ESD un-diluted. Please dilute the material always with 10 % water.
- Apply Sikafloor®-305 W ESD only to tack free Epoxy or PUR resin.
- Ensure adequate ventilation during application and drying (especially at temperatures < 13°C). Otherwise the reaction and drying processes may be impaired.
- It is extremely important to apply the coating at a consumption of 0.18–0.2 kg/m²/layer in order to achieve proper appearance, texture, colour development, and consistent ESD properties.

- If the floor is exposed to mechanical and / or chemical loads, the conductivity must be controlled regularly. In case of wear and tear, Sikafloor®-305 W ESD must be refreshed. This must be coordinated with the authorised ESD-representative or comparable.
- Please take care that the material will be mixed and stirred properly for three minutes as described in the paragraph Mixing Time. Incorrect mixing can lead to colour differences.
- If heating is required do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of both CO₂ and H₂O water vapour, which may adversely affect the finish. For heating use only electric powered warm air blower systems.
- The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking - reducing or breaking conductivity.
- For exact colour matching, ensure Sikafloor®-305 W ESD in each area is applied from the same batch. Please control batch numbers.
- Please note: ESD clothing, ambient conditions, measurement equipment, cleanliness of the floor and the test person have a substantial influence on measurement results.
- Tires might generate dark marks on Sikafloor®-305 W ESD because of plasticizer migration.
- In case of increased demands on the cleanability, Sikafloor®-305 W ESD can be over coated with the static dissipative floor polish "Jontec ESD" or "Jontec Destat" from Diversey Care. Please refer to the cleaning regime of Sikafloor®-305 W ESD.

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.

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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.

SUBSTRATE QUALITY / PRE-TREATMENT

The surface must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc. All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by vacuum. Pull off strength shall not be less than 1.5 N/mm². If in doubt apply a test area first. Epoxy surfaces must be sanded e.g. with a 3M™ Brown Stripper Pad in combination with low speed automatic scrubbers or rotary floor machines (175 – 600 rpm) in order to ensure a proper adhesion of Sikafloor®-305 W ESD.

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 EQUIPMENT

Clean all tools and application equipment with water immediately after use. Hardened material can only be removed mechanically.

MAINTENANCE

To maintain the appearance of the floor after application, Sikafloor®-305 W ESD must have all spillages removed immediately and be regularly cleaned. Please refer to the "Sikafloor®- CLEANING REGIME".

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.

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ISO 9001, 14001, 45001 – SGS
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ISO 9001, 14001 – SGS
-Sika Saudi Arabia Limited
ISO 9001, 14001 – TÜV
-Sika MB Construction Chemicals LLC
-Master Builders Solutions LLC

All products are supplied under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and ISO 45001.



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Product Data Sheet

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