

PRODUCT DATA SHEET

Sikafloor®-2350 ESD

2-PART EPOXY ELECTROSTATIC DISSIPATIVE FLOOR COATING

DESCRIPTION

Sikafloor®-2350 ESD is a 2-part self smoothing coloured electrostatic dissipative epoxy resin floor coating.

USES

Sikafloor®-2350 ESD may only be used by experienced professionals.

The Product is used as a:

- Smooth electrostatically conductive floor covering
- Please note:
- The Product may only be used for interior applications.
 - The Product may only be used by experienced professionals.

CHARACTERISTICS / ADVANTAGES

- Reliable long term conductivity
- Meets ESD requirements
- Low VOC emissions
- Good resistance to abrasion
- Low odour during application
- High mechanical resistance

SUSTAINABILITY

- Conforms with LEED v4 MR credit: Building product disclosure and optimization — Environmental Product Declarations (option 1)

- Conforms with LEED v4 MR credit: Building product disclosure and optimization — Material ingredients (option 2)
- Conforms with LEED v4 EQ credit: Low-emitting materials
- 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 13813:2002 Screed material and floor screeds — Screed material — Properties and requirements — Synthetic resin screed material
- 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
- Slip resistance DIN 51130, Roxeler, Certificate No. 020243-20-3
- Slip resistance, DIN 51130, Roxeler, Certificate No. 020243-20-2
- Slip resistance DIN 51130, Roxeler, Certificate No. 020243-20-2a
- Approval for ESD protective products acc. IEC 61340-5-1,RISE Institute, No. ESD-20-0023
- Particle emission ISO 14644-1, Sikafloor®-2350 ESD, CSM Fraunhofer, SI 2011-1195
- Insulation Resistance DIN VDE 0100-600, kiwa, Test report No. P 12819-E
- Outgassing behavior ISO 14644-15, CSM Statement of Qualification, Fraunhofer IPA
- Outgassing Behavior, VOC/ SVOC, CSM Fraunhofer, Certificate No. SI 2011-1195

PRODUCT INFORMATION

Chemical base	Epoxy	
Packaging	Container Part A	24.6 kg containers
	Container Part B	5.4 kg containers
	Container Part A + Part B	30 kg containers

Refer to the current price list for available packaging variations.

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.	
Appearance / Colour	Part A	coloured liquid
	Part B	transparent liquid
	Cured product colour	Refer to the relevant System Data Sheet

Please contact Sika customer service for information on availability.

Exposure to direct sunlight

Note: When the product is exposed to direct sunlight, there may be some discolouration and colour variation. This has no influence on the function and performance of the coating.

Density	Resin	Density at +23 °C	(EN ISO 2811-1)
	Part A	1.7 kg/L	
	Part B	1.0 kg/L	
	Mixed resin	1.5 kg/L	

TECHNICAL INFORMATION

Shore D Hardness	Cured 7 days at +23 °C	~74	(EN ISO 868)
Abrasion Resistance	~1.29 g, resin filled 20% with QS (H22 /1000 g /1000 cycles) (after 20 days at +23°C)		(EN ISO 5470-1)
Compressive Strength	Cured 28 days at +23 °C	~70 MPa	(ISO 604)
Tensile Strength in Flexure	Cured 28 days at +23 °C	~20 MPa	(ISO 178)
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	$R_g \leq 10^5 \Omega$ to $10^7 \Omega$	(EN 1081)
	Body voltage generation	< 100 V	(IEC 61340-4-5)
	System Resistance (per-son/floor/footwear)	< $10^9 \Omega$	(IEC 61340-4-5)
Service temperature	Short-term, maximum 7 days	+60 °C	

IMPORTANT

Simultaneous mechanical and chemical strain

While the Product is exposed to temperatures up to +60 °C, simultaneous mechanical or chemical strain may cause damage to the Product.

1. Do not expose the Product to chemical or mechanical strain at elevated temperatures

IMPORTANT

Exposure to moist or wet heat

Sikafloor® broadcast systems with a minimum thickness of ~3–4 mm, that use this Product, can resist short-term moist or wet heat of up to +80 °C if the exposure is only temporary (less than 1 hour). While the Product is ex-

posed to temperatures up to +80 °C, simultaneous mechanical or chemical strain may cause damage to the Product.

1. Do not expose the Product to chemical or mechanical strain at elevated temperatures

APPLICATION INFORMATION

Mixing ratio	Part A : Part B (by weight)	82 : 18 (by weight)
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Consumption	Coating system	Product	Consumption
	Wearing layer	Sikafloor®-2350 ESD	1.5 kg/m ² to 2.5 kg/m ² filled with 20 % quartz sand 0.1-0.3 mm
Slip resistant broadcast layer	Sikafloor®-2350 ESD	1.1 kg/m ² filled with 20 % quartz sand 0.1-0.3 mm	
Seal coat over broadcast substrates	Sikafloor®-2350 ESD	0.8 kg/m ²	
Textured layer	Sikafloor®-2350 ESD with ~2 % (by weight) Sika® Extender T	0.7 kg/m ² to 0.8 kg/m ²	

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	+30 °C
	Minimum	+15 °C

Ambient Air Temperature	Maximum	+30 °C
	Minimum	+15 °C

Relative Air Humidity	80 % r.h. max
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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 or blooming on the surface of the applied product. Low temperatures and high humidity conditions increase the probability of blooming.
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Substrate Temperature	Maximum	+30 °C
	Minimum	+15 °C

Substrate Moisture Content	Please refer to the product datasheet of the individual epoxy primer.
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Pot Life	Temperature	Time
	+30 °C	~15 minutes
+20 °C	~25 minutes	
+15 °C	~40 minutes	

Applied Product Ready for Use	Temperature	Foot traffic	Light traffic	Full cure
	+30 °C	~16 hours	~36 hours	~3 days
+20 °C	~24 hours	~48 hours	~4 days	
+15 °C	~48 hours	~3 days	~7 days	

Note: Times are approximate and will be affected by changing ambient conditions, particularly temperature and relative humidity. Times are also dependant on layer thickness.

BASIS OF PRODUCT DATA

based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

All technical data stated in this Product Data Sheet are

FURTHER DOCUMENTS

- Sika® Method Statement: Evaluation and preparation of surfaces for flooring systems
- Sika® Method Statement: Mixing and application of flooring systems

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

Refer to individual application text.

SUBSTRATE QUALITY

TREATMENT OF JOINTS AND CRACKS IMPORTANT

Incorrect treatment of cracks

The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking. Construction joints and existing static surface cracks in substrate require pre-treating before full layer application. Use Sikadur® or Sikafloor® resins.

SUBSTRATE CONDITION

Cementitious substrates (concrete / screed) 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 all contaminants such as dirt, oil, grease, coatings, laitance, surface treatments and loose friable material.

MIXING

TEXTURED ROLLER COATING

1. Mix Part A (resin) for ~10 seconds with a single paddle mixer (300–400 rpm).
2. Add Part B (hardener) to Part A.
3. Switch to an electric double paddle mixer (300–400 rpm, > 700 W).
4. While mixing Parts A + B, gradually add the required filler or aggregates.
5. Gradually add the required amount of Sika® Extender T (refer to Consumption).
6. **IMPORTANT** Over mixing must be avoided to minimise air entrainment. Mix for a further 2 minutes until a uniform mix is achieved.
7. To ensure thorough mixing, pour materials into another container and mix again to achieve a smooth and uniform mix.
8. During the final mixing stage, scrape down the sides and bottom of the mixing container with a flat or straight edge trowel at least once to ensure complete mixing.

2-PART + AGGREGATE MIXING PROCEDURE

1. Mix Part A (resin) for ~10 seconds with an electric

- double paddle mixer (300–400 rpm, > 700 W).
2. Add Part B (hardener) to Part A.
3. While mixing Parts A + B, gradually add the required filler or aggregates.
4. **IMPORTANT** Over mixing must be avoided to minimise air entrainment. Mix for a further 2 minutes until a uniform mix is achieved.
5. To ensure thorough mixing, pour materials into another container and mix again to achieve a smooth and uniform mix.
6. During the final mixing stage, scrape down the sides and bottom of the mixing container with a flat or straight edge trowel at least once to ensure complete mixing.

2-PART MIXING PROCEDURE

1. Mix Part A (resin) until the coloured pigment is dispersed and a uniform colour is achieved.
2. Add Part B (hardener) to Part A.
3. Mix Part A + B continuously for ~3 minutes until a uniformly coloured mix is achieved.
Note: Avoid excessive mixing to minimise air entrainment.
4. To ensure thorough mixing, pour materials into another container and mix again to achieve a smooth and uniform mix.
5. During the final mixing stage, scrape down the sides and bottom of the mixing container with a flat or straight edge trowel at least once to ensure complete mixing.

APPLICATION

IMPORTANT

Temporary heating

If temporary heating is required, do not use gas, oil, paraffin or other fossil fuel heaters. These produce large quantities of both carbon dioxide and water vapour, which may adversely affect the finish.

1. For heating, use only electric powered warm air blower systems.

IMPORTANT

Performing pre-trials

Pre-trials/mock-up applications must be performed and procedures agreed with all parties before full project application.

IMPORTANT

Temporary moisture barrier

If the substrate moisture content measured with the CM-method is > 4 % by weight, apply a temporary moisture barrier consisting of Sikafloor® EpoCem®.

1. Contact Sika technical services for more information.

IMPORTANT

Indentations

Under certain conditions, underfloor heating or high ambient temperatures combined with high point loading may lead to indentations in the resin.

SMOOTH WEARING LAYER

Suitable application equipment

- Large-Surface Scraper No. 656, Toothed blades No. 25 (www.polyplan.com)

Procedure

1. Pour the mixed Product onto the substrate.
Note: The consumption is specified in Application Information.
2. Apply the Product evenly over the surface with a serrated trowel.

- To achieve a smooth finish, smooth the surface with the flat side of a trowel.
- Back roll the surface in two directions at right angles with a steel spike roller.

TEXTURED WEARING LAYER

Suitable application equipment

- Trowel No. 999 (www.polyplan.com)
- Adhesive Spreader No. 777, Toothed blades No. 23 = A3 (www.polyplan.com)

Procedure

- Pour the mixed Product onto the substrate.
Note: The consumption is specified in Application Information.
- Apply the Product evenly over the surface with a serrated trowel.
- Back roll the surface in two directions at right angles with a textured roller.

SELF-SMOOTHING BROADCAST WEARING LAYER APPLICATION

- Pour the mixed Product onto the substrate.
Note: The consumption is specified in Application Information.
- Apply the Product evenly over the surface with a serrated trowel.
- Back roll the surface in two directions at right angles with a spike roller.
Note: Maintain a "wet edge" during application to achieve a seamless finish.
- Broadcast the surface with quartz sand or silicon carbide, lightly at first, then to excess.
Note: The aggregate is dependant on the system build-up. Refer to the relevant System Data Sheet.

SEAL COAT FOR BROADCAST SURFACES

- Pour the mixed Product onto the substrate.
Note: The consumption is specified in Application Information.
- Spread the Product evenly over the surface with a squeegee.
- Back roll the surface in two directions at right angles with a medium pile roller.
Note: Maintain a "wet edge" during application for a seamless finish.

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

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

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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