

PRODUCT DATA SHEET

Sikafloor®-2350 ESD

Electrostatic dissipative epoxy floor coating

DESCRIPTION

Sikafloor®-2350 ESD is a two-part, electrostatic dissipative, self-smoothing, coloured epoxy coating. It provides a slip-resistant, hard-wearing, seamless, low-maintenance gloss finish.

USES

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

Sikafloor®-2350 ESD is used as a:

- Smooth roller coat
- Smooth wearing layer
- Seal coat or top coat for slip-resistant broadcast systems

Sikafloor®-2350 ESD is used on the following substrates:

- Concrete and cementitious substrates

Please note:

- The Product may only be used for interior applications.
- The Product may only be used by experienced professionals.

FEATURES

- Low VOC emissions
- Good resistance to abrasion
- Low odour during application
- Very good mechanical resistance

SUSTAINABILITY

- Contributes towards satisfying Materials and Resources (MR) Credit: Building product disclosure and optimization — Environmental Product Declarations under LEED® v4
- Contributes towards satisfying Materials and Resources (MR) Credit: Building Product Disclosure and Optimization — Material Ingredients under LEED® v4

- Contributes towards satisfying Indoor Environmental Quality (EQ) Credit: Low-Emitting Materials under LEED® v4
- Environmental Product Declaration (EPD) in accordance with EN 15804. EPD independently verified by Institut für Bauen und Umwelt e.V. (IBU)
- Complies with the requirements of AgBB including the LCI-values (August 2018) for use in the indoor environment.
- French regulation on indoor VOC emissions class A+

CERTIFICATES AND TEST REPORTS

- 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
- Fire classification report, EN 13501-1, Ghent University, Report No. 20-1069-03
- 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
- 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
- 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

PRODUCT INFORMATION

Composition	Epoxy		
Packaging	Container Part A	24.6 kg	
	Container Part B	5.4 kg	
	Container Part A + Part B	30 kg	
	Refer to the current price list for available packaging variations.		
Shelf life	18 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 the packaging. Refer to the current Safety Data Sheet for information on safe handling and storage.		
Appearance and colour	Part A	coloured liquid	
	Part B	transparent liquid	
	Cured colour	Refer to the system datasheet	
	Cured appearance	Gloss finish	
	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	Part A	1.70 kg/l	(EN ISO 2811-1)
	Part B	1.00 kg/l	
	Mixed Product	1.50 kg/l	
Solid content by mass	100 %		
Solid content by volume	100 %		

TECHNICAL INFORMATION

Shore D Hardness	Cured 7 days at +23 °C	80	(EN ISO 868)
Abrasion resistance	Cured 7 days at +23 °C	1.29 g, resin filled 20% with (quartz sand 0.1-0.3 mm) (H22 / 1000 cycles / 1000 g)	(EN ISO 5470-1)
Compressive strength	Cured 28 days at +23 °C	120 MPa	(EN ISO 604)
Flexural-strength	Cured 28 days at +23 °C	30 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)
	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.		

Service temperatureShort-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

APPLICATION INFORMATION**Mixing ratio**Part A : Part B (by weight) 82 : 18**Consumption**

Layer	Product	Consumption
Wearing layer	Sikafloor®-2350 ESD	1.5–2.5 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 surfaces	Sikafloor®-2350 ESD	0.75–0.85 kg/m ²
Smooth roller coat	Sikafloor®-2350 ESD	0.8 kg/m ²
Textured layer	Sikafloor®-2350 ESD with ~2 % (by weight) Sika® Extender T	0.7–0.8 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 the Product to a test area to calculate the exact consumption for the specific substrate conditions and proposed application equipment.

Material temperature

Maximum	<u>+30 °C</u>
Minimum	<u>+15 °C</u>

Ambient air temperature

Maximum	<u>+30 °C</u>
Minimum	<u>+15 °C</u>

Relative air humidity

Maximum	<u>80 % r.h.</u>
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Dew point

Beware of condensation. The substrate and uncured applied product must be at least +3 °C above the 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.

Substrate temperature

Maximum	<u>+30 °C</u>
Minimum	<u>+15 °C</u>

Pot Life

+15 °C	<u>40 minutes</u>
+20 °C	<u>25 minutes</u>
+30 °C	<u>15 minutes</u>

Note: 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
+15 °C	<u>~48 hours</u>	<u>~3 days</u>	<u>~7 days</u>
+20 °C	<u>~24 hours</u>	<u>~48 hours</u>	<u>~4 days</u>
+30 °C	<u>~16 hours</u>	<u>~36 hours</u>	<u>~3 days</u>

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

FURTHER DOCUMENTATION

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

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

EQUIPMENT

MIXING EQUIPMENT

- Electric double-paddle mixer (> 700 W, 300 rpm to 400 rpm)

APPLICATION EQUIPMENT

- Trowels, including serrated
- Short-pile roller
- Textured roller
- Squeegee

SUBSTRATE QUALITY

IMPORTANT

Reduced service life due to incorrect treatment of cracks

The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.

1. For static cracks, ensure the width is suitable for overcoating with Sikafloor®-2350 ESD.
2. For dynamic cracks, ensure the movement is within the movement capacity of Sikafloor®-2350 ESD.

TREATMENT OF JOINTS AND CRACKS

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 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.

MIXING

TEXTURED ROLLER COATING

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. Gradually add the required amount of Sika® Extender T (refer to Consumption).
4. **IMPORTANT** Do not mix excessively. 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 + AGGREGATE 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. While mixing Parts A + B, gradually add the required filler or aggregates.
4. **IMPORTANT** Do not mix excessively. 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. **IMPORTANT** Do not mix excessively. Mix Part A + B continuously for ~3 minutes until a uniformly coloured mix is achieved.
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

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

Apply approved reference area before full system application

Apply a reference area before the application of a full system. The reference area must be assessed and accepted by all parties before full project application.

IMPORTANT

Temporary moisture barrier required if substrate moisture exceeds 4%

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 in resin due to high temperature combined with high point loading

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

SMOOTH WEARING LAYER

1. Pour the mixed Product onto the substrate. For the consumption, refer to Application Information.
2. Apply the Product evenly over the surface with a serrated trowel.
3. To achieve a smooth finish, smooth the surface with the flat side of a trowel.
4. Back roll the surface in two directions at right angles with a steel spike roller.

TEXTURED WEARING LAYER

1. Pour the mixed Product onto the substrate. For the consumption, refer to Application Information.
2. Apply the Product evenly over the surface with a serrated trowel.
3. Back roll the surface in two directions at right angles with a textured roller.

SELF-SMOOTHING BROADCAST WEARING LAYER APPLICATION

1. Pour the mixed Product onto the substrate. For the consumption, refer to Application Information.
2. Apply the Product evenly over the surface with a serrated trowel.
3. 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.

4. Broadcast the surface with silicone carbide, or conductive quartz sand, 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

1. Pour the mixed Product onto the substrate. For the consumption, refer to Application Information.
2. Spread the Product evenly over the surface with a squeegee.
3. 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.

ROLLER COATING

1. Pour the mixed Product onto the substrate. For the consumption, refer to Application Information.
 2. Spread the Product evenly over the surface with a squeegee.
 3. Back-roll the surface in two directions at right angles with a short pile roller.
- Note: Maintain a "wet edge" during application for a seamless finish.

CLEANING OF EQUIPMENT

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 performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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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Product Data Sheet

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