

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, Textured or Slip Resistant electrostatically conductive floor covering

Please note:

- The Product may only be used for interior applications.

CHARACTERISTICS / ADVANTAGES

- Reliable long term conductivity
- Meets ESD requirements
- 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+

APPROVALS / CERTIFICATES

- 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

Composition	Epoxy	
Packaging		
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 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	Available in the approximate colours RAL 1014, RAL 3012, RAL 5024, RAL 6010, RAL 6020, RAL 6021, RAL 6027, RAL 6033, RAL 6034, RAL 7005, RAL 7015, RAL 7016, RAL 7030, RAL 7032, RAL 7035, RAL 7040, RAL 7047
	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
	Part B	~1.00 kg/l
	Mixed Product	~1.5 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 QS (H22/1000/1000)	(EN ISO 5470-1)
Compressive strength	Cured 28 days at +23 °C	~120 MPa	(EN ISO 604)
Tensile strength in flexure	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)
	Typical average resistance to ground	$R_g \leq 10^5 \Omega$ to $10^7 \Omega$	(EN 1081)
	Body voltage generation	$< 100 \text{ V}$	(IEC 61340-4-5)
	System Resistance (person/floor/footwear)	$< 10^9 \Omega$	(IEC 61340-4-5)

Note Measurement results can be affected by ESD clothing, ambient conditions, measurement equipment, cleanliness of the floor and the test personnel.

Service temperature	Short-term, maximum 7 days	$+60 \text{ }^\circ\text{C}$
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IMPORTANT
Simultaneous mechanical and chemical strain
While the Product is exposed to temperatures up to $+60 \text{ }^\circ\text{C}$, 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.

Material temperature	Minimum	$+15 \text{ }^\circ\text{C}$
	Maximum	$+30 \text{ }^\circ\text{C}$

Ambient air temperature	Minimum	$+15 \text{ }^\circ\text{C}$
	Maximum	$+30 \text{ }^\circ\text{C}$

Relative air humidity	Maximum	80 % r.h.
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Dew point	Beware of condensation. The substrate and uncured applied product must be at least $+3 \text{ }^\circ\text{C}$ 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	Minimum	$+15 \text{ }^\circ\text{C}$
	Maximum	$+30 \text{ }^\circ\text{C}$

Substrate moisture content

Pot Life	+15 °C	40 minutes
	+20 °C	25 minutes
	+30 °C	15 minutes

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
	+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.

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.

LIMITATIONS OF USE

FURTHER INFORMATION

Refer to the following method statements:

- Sika Method Statement — Sikafloor® and Sikagard® evaluation and preparation of surfaces
- 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 Safety Data Sheet (SDS) containing 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.

Substrates must be free from rising moisture.

Primer for substrates <4% moisture (pbw) to be Sikafloor 160.

Primer for substrates <6% moisture (pbw) to be Sikafloor 161.

MIXING

TEXTURED ROLLER COATING

1. Mix Part A (resin) for ~10 seconds with a single paddle mixer (300–400 rpm).
2. Gradually add the required amount of Sika® Extender T (refer to Consumption) and mix until homogenous.
3. Add Part B (hardener) to Part A.
4. Switch to an electric double paddle mixer (300–400 rpm, > 700 W) and mix for 2 minutes.
5. **IMPORTANT** Do not mix excessively. .
6. To ensure thorough mixing, pour materials into another container and mix again to achieve a smooth and uniform mix.
7. 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** 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

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.

Indentations

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

SMOOTH 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.
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

Suitable application equipment

- Trowel No. 999 (www.polyplan.com)
- Adhesive Spreader No. 777, Toothed blades No. 23 = A3 (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.
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. **Note:** The consumption is specified in Application Information.
2. Apply the Product evenly over the surface with a ser-

rated 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 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

1. Pour the mixed Product onto the substrate. **Note:** The consumption is specified in 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.

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 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.

Sika Australia Pty Limited

ABN 12 001 342 329

aus.sika.com

Tel: 1300 22 33 48

Product Data Sheet

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