BUILDING TRUST

PRODUCT DATA SHEET

Sikafloor®-223 W Conductive

Water based epoxy electrostatic conductive flooring primer (Formerly FLORPRIME ESD)

DESCRIPTION

Sikafloor®-223 W Conductive is a 2-part, water dispersed, epoxy resin with a high electrostatic conductivity. It is part of selected Sikafloor® ESD and EDF flooring systems.

USES

Sikafloor®-223 W Conductive may only be used by experienced professionals.

The Product is used as a:
- Conductive primer below Sikafloor® electrostatic conductive floor coatings such as Sikafloor®-281 EDF, Sikafloor®-44 PurCem® EDF, Sikafloor®-278 ESD

CHARACTERISTICS / ADVANTAGES

- Water-based
- Easy to apply
- High electrostatic conductivity
- Gives good adhesion to top coat
- Applied by roller

PRODUCT INFORMATION

Composition	Water based epoxy		
Packaging	Part A+B pre-batched	5 kg set	
	Part A	1 kg container	
	Part B	4 kg container	
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.		
Appearance and colour	Part A	Transparent, liquid	
	Part B	Black, liquid	
Density	~1.08 kg/L (Part A+B mixed, +27 °C)		(EN ISO 2811-1)

TECHNICAL INFORMATION

Electrostatic behaviour	Typical average resistance to ground	Rg ≤ 5 × 10^5 Ω	(EN 1081)
	Readings may vary, depending on ambient conditions (such as temperature, humidity) and measurement equipment.		

SYSTEM INFORMATION

System structure

Layer	Product
Primer	Sikafloor®-167 Primer / Sikafloor®-161 HC
Earthing connection	Sikafloor® Copper Tape IN
Conductive primer	Sikafloor®-223 W Conductive
ESD/EDF wearing course	Sikafloor®-281 EDF or Sikafloor®-278 ESD or Sikafloor®-44 PurCem® EDF

Note: This system configuration as described must be fully complied with and may not be changed.

APPLICATION INFORMATION

Mixing ratio

Part A : part B = 1 : 4 (by weight)

Consumption

~0.1–0.12 kg/m²
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

+10 °C min. / +30 °C max.

Ambient air temperature

+10 °C min. / +30 °C max.

Relative air humidity

75 % max.

Dew point

Beware of condensation!
The substrate and uncured floor must be at least +3 °C above dew point to reduce the risk of condensation or blooming on the floor finish.

Substrate temperature

+10 °C min. / +30 °C max.

Substrate moisture content

Refer to the individual primer Product Data Sheet

Pot Life

Temperatures	Pot life (100 g mass)
+20 °C	~30 minutes
+30 °C	~20 minutes

Waiting time to overcoating

Before overcoating the product, allow:

Substrate temperature	Minimum	Maximum
+20 °C	~24 hours	~5 days
+30 °C	~16 hours	~4 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.

FURTHER INFORMATION

- Sika Method Statement — Sikafloor® and Sikagard® evaluation and preparation of surfaces
- Sika Method Statement — Sikafloor® mixing and application

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

MIXING
- Electric double paddle mixer ~700 W (300 - 400 rpm)

APPLICATION
- Short pile (12 mm) nylon rollers

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 all contaminants such as dirt, oil, grease, coatings, laitance, surface treatments and loose friable material.
- Use industrial vacuuming equipment to remove all dust, loose and friable material from the application surface before applying the Product.

IMPORTANT
The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking - reducing or breaking conductivity.

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 PREPARATION

IMPORTANT
Exposing blow holes and voids
When mechanically preparing the surface, make sure to fully expose blow holes and voids.

1. Remove weak cementitious substrates.
2. Prepare cementitious substrates mechanically using abrasive blast cleaning or planing / scarifying equipment to remove cement laitance.
3. Before applying thin layer resins, remove high spots by grinding.
4. Use industrial vacuuming equipment to remove all dust, loose and friable material from the application surface before applying the Product.
5. Use products from the Sikafloor®, Sikadur® and Sikagard® range of materials to level the surface or fill cracks, blow holes and voids.

Contact Sika® Technical Services for additional information on products for levelling and repairing defects.

SUBSTRATE PREPARATION OF NON-CEMENTITIOUS SUBSTRATES
For information on substrate preparation of non-cementitious substrates, contact Sika technical services.

MIXING

1. Prior to mixing all parts, mix Part A (resin) using an electric double 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. IMPORTANT Do not mix excessively. Mix Part A + B continuously for ~2 minutes until a uniformly coloured mix is achieved.
4. To ensure thorough mixing, pour materials into another container and mix again for at least 30 seconds 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
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
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
Ventilation in confined spaces
Always ensure good ventilation when applying the Product in a confined space.
IMPORTANT
Protecting the material after application
After application, protect the System from damp, condensation and direct water contact for at least 24 hours.
Preconditions
- Apply only on primed or levelled concrete and screed surfaces.
- IMPORTANT Do not blind the primer and only start application of the Sikafloor® conductive primer after all the primer has dried tack-free.

Conductive primer application
1. Pour the mixed Product onto the surface. The consumption is specified in Application Information.
2. Apply the Product evenly over the surface with a short piled roller.
3. Back roll the surface in two directions at right angles to each other. Note: Ensure a continuous, pore free coat covers the substrate.
4. Confirm waiting / overcoating time has been achieved before applying subsequent products.

Conductivity testing
Note: After curing of the Sikafloor® conductive primer and before application of the subsequent conductive or dissipative wearing layers. Conductivity testing of the conductive primer must be carried out. All readings must be below 5×10^5 Ohm (resistance to ground). Insulation Tester Metriso 2000 / 3000 from Warmbier or comparable.

CLEANING OF EQUIPMENT

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 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.

Apurva India Pvt. Ltd.
New Udyog Mandir No. 2,
Office No. 203, 2nd Floor,
7-C, Pitamber Lane, Mahim (West)
Mumbai - 400 016
Maharashtra, India

Contact:
Phone: +91 22 6270 4038
info.india@in.sika.com
www.apurvaindia.in
www.sika.in