

**BUILDING TRUST** 

# PRODUCT DATA SHEET

# Sikafloor®-220 W Conductive

# Electrostatic conductive epoxy primer





# **DESCRIPTION**

Sikafloor®-220 W Conductive is a 2-part, water-dispersed epoxy resin with high electrostatic conductivity. It is part of selected Sikafloor® ECF and ESD flooring systems.

# **USES**

The Product is used as a:

 Conductive primer below Sikafloor® electrostatic conductive floor coatings

Please note:

 The Product may only be used by experienced professionals.

# **CHARACTERISTICS / ADVANTAGES**

- Electrostatically conductive
- Easy to apply

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

# PRODUCT INFORMATION

Chemical Base	Water-based epoxy			
Packaging	Container Part A	4.98 kg		
	Container Part B	1.02 kg		
	Container Part A + Part B	6 kg		
	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	black, liquid		
	Part B	white, liquid		

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Density	Part A 1.17 kg/l			(EN ISO 2811-1)	
	Part B	1.09 kg/			
	Mixed Product 1.16 kg/l				
Solid content by weight	44 %				
Solid content by volume	34 %				
TECHNICAL INFORMATION					
Electrostatic Behaviour	Typical average resistance $Rg \le 10^4 \Omega$ to ground:		(EN 1081)		
	Readings may vary, depending on ambient conditions (i.e. temperature, humidity) and measurement equipment.				
APPLICATION INFORMATION	N				
Mixing Ratio	Part A : Part B (by weigh	i)	83:17		
Consumption	Roller coat		~0.08–0.1 k	g/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.				
Product Temperature	Maximum		+30 °C		
	Minimum		+10 °C		
Ambient Air Temperature	Maximum		+30 °C		
	Minimum +10 °C				
Relative Air Humidity	Maximum 75 %		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 or blooming on the surface of the applied product. Low temperatures and high humidity conditions increase the probability of blooming.				
Substrate Temperature	Maximum		+30 °C		
•	Minimum +10 °C				
Substrate Moisture Content	≤ 4% pbw using Sikafloor®-150 ≤ 6% pbw using Sikafloor®-151 Test method: Sika®-Tramex meter, CM - measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet). Osmosis caused by rising moisture or incorrect primer application is not covered by the product warranty.				
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	od. No rising moisture accor Osmosis caused by rising not covered by the prod  +10 °C +20 °C +30 °C  Before overcoating the F Substrate temperature	ding to ASTM moisture or uct warranty moisture.	(Polyethyle   incorrect pr   ~ 120 minuter   ~ 90 minuter   ~ 30 minuter	tes es es Maximum	
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	od. No rising moisture accor Osmosis caused by rising not covered by the prod  +10 °C +20 °C +30 °C  Before overcoating the F Substrate temperature	ding to ASTM moisture or uct warranty moisture.	(Polyethyle   incorrect pr   ~ 120 minuter   ~ 90 minuter   ~ 30 minuter	tes es es Maximum	

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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 DOCUMENTS**

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 Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

# APPLICATION INSTRUCTIONS

#### **EQUIPMENT**

MIXING

- Electric single paddle mixer (300 to 400 rpm)
   APPLICATION
- Short-pile nylon roller

#### SUBSTRATE QUALITY

Cementitious substrates must be structurally sound and of sufficient compressive strength (minimum 25 MPa) with a minimum tensile strength of 1.5 MPa. Substrates must be clean, dry and free of 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.

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

MECHANICAL SUBSTRATE PREPARATION IMPORTANT

# Surface defects due to voids in the substrate

Voids and blow holes in the substrate will weaken the surface and damage the covering Product if not repaired during the preparation process.

- 1. Fully expose blow holes and voids during surface preparation to identify the required repairs.
- 1. Remove weak cementitious substrates.
- 2. Prepare cementitious substrates mechanically using abrasive blast cleaning, abrasive planing or 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.
- 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.

#### **MIXING**

- 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.
- IMPORTANT Do not mix excessively. Mix Part A + B continuously for ~2 minutes until a uniformly coloured mix is achieved.
- To ensure thorough mixing, pour materials into another container and mix again to achieve a smooth and uniform mix.
- 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**

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**

### 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.

#### **IMPORTANT**

#### **Earthing connections**

Self-adhesive copper tapes can lead to high conductivity of the floor and non-compliance with the requirements of VDE100-610. There is no protective effect at the earthing point and  $^{\sim}10$  cm around the earthing point.

- 1. Do not use self-adhesive copper tapes to form conductive grids across the floor.
- Only use the earthing points contained in the Sikafloor® Conductive Set.
- 3. Do not apply the Product on substrates with rising moisture.

#### 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.



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- 1. Pour the mixed Product onto the surface. For consumption, refer to Application Information.
- 2. Apply the Product evenly over the surface with a short-piled roller.
- Back-roll the surface in two directions at right angles. Note Ensure that a continuous, pore free-coat covers the substrate.
- 4. Confirm that waiting time or 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 wearing layers, conductivity testing of the conductive primer must be carried out.

All readings must be below 104 Ohm.

Resistance to ground: insulation tester Metriso 3000 from Warmbier or comparable

Surface resistance probe: carbon rubber electrode

Weight: 2.5 kg ( $\pm$  0.25 kg); diameter: 65 mm ( $\pm$  5 mm); rubber pad hardness: Shore A 60 ( $\pm$  10)

#### **CLEANING OF TOOLS**

Clean all tools and application equipment with water 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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

#### Sika (NZ) Limited

85-91 Patiki Road Avondale, Auckland 1026 New Zealand 0800 745 269 www.sika.co.nz





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