BUILDING TRUST

PRODUCT DATA SHEET

Sikafloor®-220 W Conductive

2-PART, ELECTROSTATIC CONDUCTIVE EPOXY PRIMER

PRODUCT DESCRIPTION

Sikafloor®-220 W Conductive is a two part, water dispersed, epoxy resin with a high electrostatic conductivity. Sikafloor®-220 W Conductive is a part of different systems. For more details please refer to the System Data Sheet mentioned under the parapraph SYSTEM INFORMATION.

USES

Sikafloor®-220 W Conductive installation works to be carried out only by Sika Approved Contractors. Please observe information given by Product Data Sheets.

- Sikafloor®-220 W Conductive must be applied as conductive primer underneath all Sikafloor® conductive wearing courses, such as Sikafloor®-262 AS N, 262 AS N Thixo, -235 ESD, -381 ECF and -390 ECF.
- Electrostatic conductive coatings on concrete and cementitious screeds for different types of industrial use.

CHARACTERISTICS / ADVANTAGES

- Highly electrostatic conductive
- Easy application
- Economical in use

ENVIRONMENTAL INFORMATION

- Conformity with LEED v2009 IEQc 4.2: Low-Emitting Materials - Paints and Coatings

APPROVALS / STANDARDS

- CE Marking and Declaration of Performance to EN 1504-2 - Surface protection product for concrete - Coating
- CE Marking and Declaration of Performance to EN 13813 - Resin screed material for internal use in buildings
- Varnishability test PV 3.10.7, Sikafloor®-220 W Conductive, HQM, Test report No. 09-09-132-5

PRODUCT INFORMATION

Chemical Base	Waterborne epoxy		
Packaging	Part A	4.98 kg containers	
	Part B	1.02 kg containers	
	Part A + B	6 kg unipacks	
Appearance / Colour	Resin - part A	black, liquid	
	Hardener - part B	white, liquid	
Shelf Life	12 months from date of production.		
Storage Conditions	The packaging must be stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between +5 °C and +30 °C. Part A and part B must be protected from frost.		
Density	Part A	1.15 kg/l	(DIN EN ISO 2811-1)
	Part B	1.06 kg/l	
	Mixed Resin	1.04 kg/l	
	All density values at +23°C.		
Solid content by weight	~44 %		
Solid content by volume	~34 %		

TECHNICAL INFORMATION

Electrostatic Behaviour	Typical average resistance to ground: Rg ≤ 10^4 Ω	(DIN EN 1081)
	* Readings may vary, depending on ambient conditions (i.e. temperature, humidity) and measurement equipment.	

SYSTEM INFORMATION

Systems

Sikafloor®-220 W Conductive is a part of the following systems. For detailed info please refer to the System Data Sheets of:

Sikafloor® Multidur ET-14 ECF	Textured, unicolour conductive epoxy roller coat
Sikafloor® Multidur ES-24 ECF	Smooth, unicolour conductive epoxy floor covering
Sikafloor® Multidur ES-24 ESD	Smooth, unicolour conductive epoxy floor covering with ESD Roller Coating
Sikafloor® Multidur ES-25 ESD	Smooth, unicolour high performance ESD epoxy floor covering
Sikafloor® Multidur ES-31 ECF	Smooth, epoxy floor covering, Chemically resistant conductive epoxy floor covering
Sikafloor® Multidur ES-31 ECF/V	Smooth, epoxy floor covering, Chemically resistant conductive epoxy floor covering for vertical areas
Sikafloor® Multidur EB-31 ECF	Broadcast, unicolour conductive epoxy floor covering with high chemical resistance and slip resistance

Sikafloor® Multidur ES-39 ECF	Smooth, tough-elastic, unicolour conductive epoxy floor covering with high chemical resistance
Sikafloor® Multidur ES-39 ECF/V	Smooth, tough-elastic, Chemically Resistant Conductive epoxy floor covering for vertical areas
Sikafloor® Multidur EB-39 ECF	Broadcast, tough-elastic, unicolour conductive epoxy floor covering with high chemical resistance

APPLICATION INFORMATION

Mixing Ratio

Part A : part B = 83 : 17 (by weight)

Consumption

Coating System	Product	Consumption
Conductive seal coat (optional)	Sikafloor®-220 W Conductive	~0.08 - 0.10 kg/m²

These figures are theoretical and does not allow for any additional material due to surface porosity, surface profile, variations in level and wastage etc. For detailed info, please refer to the system related System Data Sheets.

Ambient Air Temperature

+10 °C min. / +30 °C max.

Relative Air Humidity

75 % r.h. 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

< 4 % moisture content. Test method: Sika®-Tramex meter, CM - measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet).

Pot Life

Temperatures	Time
+10 °C	~120 minutes
+20 °C	~90 minutes
+30 °C	~30 minutes

Curing Time

Before overcoating Sikafloor®-220 W Conductive allow:

Substrate temperature	Minimum	Maximum
+10 °C	26 hours	7 days
+20 °C	17 hours	5 days
+30 °C	12 hours	4 days

Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

Applied Product Ready for Use

Temperature	Foot traffic
+10°C	~ 26 hours
+20°C	~ 13 hours
+30°C	~ 8 hours

APPLICATION INSTRUCTIONS

EQUIPMENT

Mixing Tools
Sikafloor®-220 W Conductive must be thoroughly mixed using a low speed electric stirrer (300–400 rpm) or other suitable equipment.

SUBSTRATE QUALITY / PRE-TREATMENT

The concrete substrate must be sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum pull off strength of 1.5 N/mm².
The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc. If in doubt apply a test area first.
Concrete substrates must be prepared mechanically

using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface.
Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed. Repairs to the substrate, filling of blowholes/voids and surface levelling must be carried out using appropriate products from the Sikafloor®, SikaDur® and SikaGard® range of materials. The concrete or screed substrate has to be primed or levelled in order to achieve an even surface. High spots must be removed by e.g. grinding. All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.

MIXING

Prior to mixing, stir part A mechanically. When all of part B has been added to part A, mix continuously for 2 minutes until a uniform mix has been achieved. To ensure thorough mixing pour materials into another container and mix again to achieve a consistent mix. Over mixing must be avoided to minimize air entrainment.

APPLICATION

Application of Sikafloor® conductive primer:
Uniformly spread 1 x Sikafloor®-220 W Conductive using a short pile nylon roller (12 mm).

CLEANING OF TOOLS

Clean all tools and application equipment with water immediately after use. Hardened and/or cured material can only be removed mechanically.

FURTHER DOCUMENTS

- **Substrate quality & Preparation**
  Please refer to Sika Information Manual: “EVALUATION AND PREPARATION OF SURFACES FOR FLOORING SYSTEMS”.
- **Application instructions**
  Please refer to Sika Information Manual: “MIXING & APPLICATION OF FLOORING SYSTEMS”.

LIMITATIONS

- This product may only be used by experienced professionals.
- Do not apply Sikafloor®-220 W Conductive on substrates with rising moisture.
- Apply Sikafloor®-220 W Conductive only on primed or levelled up concrete and screed surfaces.
- Do not blind the primer.
- Freshly applied Sikafloor®-220 W Conductive should be protected from damp, condensation and water for at least 24 hours.
- Only start application of Sikafloor® conductive primer after the primer has dried tack-free all over. Otherwise there is a risk of wrinkling and impairing of the conductive properties.
- If heating is required do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of both CO_2 and H_2O water vapour, which may adversely affect the finish. For heating use only electric powered warm air blower systems.
- The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking - reducing or breaking conductivity.
- After the curing of Sikafloor®-220 W Conductive and before application of the subsequent conductive wearing couses, the testing to measure the conductivity of Sikafloor®-220 W Conductive, is mandatory. All readings must be below 10^4 Ohms. Measuring equipment: *Resistance to ground:* Insulation Tester Metriso 2000 from Warmbier or comparable. Surface resistance probe: Carbon Rubber electrode. Weight: 2.50 kg (±0.25 kg); Diameter: 65 mm (±5 mm); Rubber pad hardness: Shore A 60 (±10).

VALUE BASE

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

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 the exact product data and uses.

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.

DIRECTIVE 2004/42/CE LIMITATION OF EMISSIONS OF VOC

According to the EU-Directive 2004/42, the maximum allowed content of VOC (Product category IIA / j type wb) is 140 g/l (Limits 2010) for the ready to use product. The maximum content of Sikafloor®-220 W Conductive is < 140 g/l VOC for the ready to use product.

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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