

## SYSTEM DATA SHEET

# Sikafloor® MultiFlex PS-32 ECF

### SMOOTH LOW VOC POLYURETHANE CONDUCTIVE FLOOR SYSTEM

#### DESCRIPTION

Sikafloor® MultiFlex PS-32 ECF is a polyurethane, coloured, low VOC emission, conductive, resin based floor system. It provides a hard-wearing, seamless, chemical resistant, tough-elastic, crack bridging, low maintenance, smooth gloss finish. For industrial applications. Thickness ~1,5 mm. Internal use.

#### USES

Sikafloor® MultiFlex PS-32 ECF may only be used by experienced professionals.

- On concrete and cementitious screeds for industrial applications e.g. automotive, electronics and pharmaceutical manufacturing, storage facilities, hospitals and warehouses.
- Areas where electrostatic conductivity is required for explosion protection.
- Areas with sensitive electronic equipment e.g. CNC machinery, computer rooms, aircraft maintenance sheds and areas subjected to high explosion risk.

#### CHARACTERISTICS / ADVANTAGES

- Electrostatic conductive
- Flexible and tough-elastic
- Crack-bridging
- Good chemical and mechanical resistance
- Low VOC emissions
- Easy to apply
- Good cleanability
- Economical
- Low sensitivity to moisture during application
- Low maintenance
- Seamless

#### SUSTAINABILITY

- Conformity with LEED v4 MRc 2 (Option 1): Building Product Disclosure and Optimization – Environmental Product Declarations - Sikafloor®-220 W Conductive
- Conformity with LEED v2009 IEQc 4.2: Low-Emitting Materials - Paints and Coatings - Sikafloor®-220 W Conductive
- IBU Environmental Product Declaration (EPD) available - Sikafloor®-3240 ECF

#### APPROVALS / CERTIFICATES

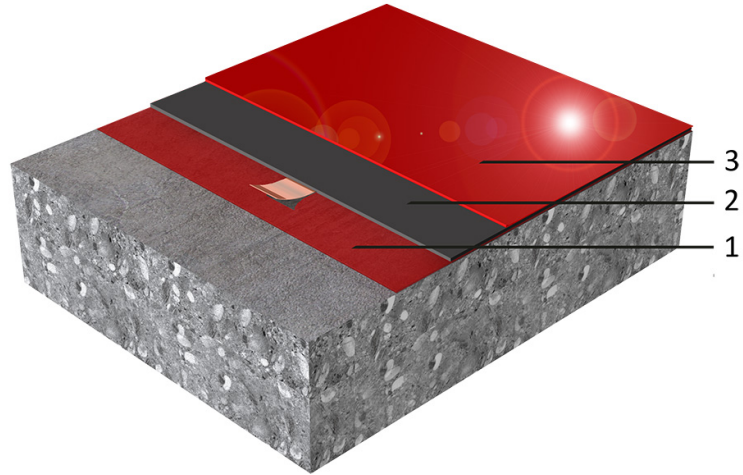
- CE Marking and Declaration of Performance to EN 1504-2 - Surface protection product for concrete - Coating - Sikafloor®-161, Sikafloor®-220 W Conductive
- CE Marking and Declaration of Performance to EN 13813 - Resin screed material for internal use in buildings - Sikafloor®-161, Sikafloor®-220 W Conductive

## PRODUCT INFORMATION

Packaging	Refer to the individual Product Data Sheets
Shelf life	Refer to the individual Product Data Sheets
Storage conditions	Refer to the individual Product Data Sheets

## SYSTEMS

System Structure Sikafloor® MultiFlex PS-32 ECF (~1,5 mm)



Layer	Product	Consumption
1. Primer	Sikafloor®-159/160/161	1 × ~0,4 kg/m <sup>2</sup>
2. Conductive primer	Sikafloor®-220 W Conductive	1 × 0,08–0,10 kg/m <sup>2</sup>
Earthing connection	Sikafloor® Earthing Kit	1 earthing point for 200–300 m <sup>2</sup>
3. Conductive base coat	Sikafloor®-3240 ECF (unfilled)	1 × ~2,1–2,3 kg/m <sup>2</sup>

Optional primers: Sikafloor®-144/-156/-701.

Composition	Polyurethane
Appearance	Smooth gloss finish
Colour	Standard colour RAL 7032. Extended colour range on request.
Nominal Thickness	~1,5 mm

## TECHNICAL INFORMATION

Shore D Hardness	~60 (7 days/23 °C/50 % r.h.)	(DIN 53505)
Abrasion Resistance	~75 mg (28 days/23 °C/50 % r.h.)	(ASTM D 4060)
Tensile Strength	~15 N/mm <sup>2</sup> (14 days/23 °C/50 % r.h.)	(DIN EN ISO 527-2)
Elongation at Break	~ 120 % (resin/14 days/+23 °C/50 % r.h.)	(ISO 527-2)
Chemical Resistance	Resistant to many chemicals. Contact Sika technical service for specific information.	
Electrostatic Behaviour	Resistance to ground <sup>1)</sup>	$R_g < 10^9 \Omega$ (IEC 61340-4-1)
	Typical average resistance to ground <sup>2)</sup>	$R_g \leq 10^6 \Omega$ (DIN EN 1081)

<sup>1)</sup> This product fulfils the requirements of ATEX 137

<sup>2)</sup> Readings may vary, depending on ambient conditions (i.e. temperature, humidity) and measurement equipment.

## APPLICATION INFORMATION

<b>Ambient Air Temperature</b>	+10 °C min. / +30 °C max.			
<b>Relative Air Humidity</b>	~ 75–80 %			
<b>Dew Point</b>	Beware of condensation. The substrate and uncured applied floor material must be at least +3 °C above dew point to reduce the risk of condensation or blooming on the surface of the applied product.			
<b>Substrate Temperature</b>	+10 °C min. / +30 °C max.			
<b>Substrate Moisture Content</b>	≤4 % Test method: Sika® Tramex meter, CM-measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet). Substrate visibly dry with no standing water.			
<b>Applied Product Ready for Use</b>	<b>Temperature</b>	<b>Foot traffic</b>	<b>Light traffic</b>	<b>Full cure</b>
	+10 °C	1 day	3 days	9 days
	+20 °C	12 hours	2 days	5 days
	+30 °C	8hours	1 day	3 days
	Times are approximate and will be affected by changing ambient and substrate conditions particularly temperature and relative humidity..			

## MAINTENANCE

### CLEANING

Refer to Method Statement: Sikafloor®-Cleaning Regime

### FURTHER INFORMATION

- Sika® Method Statement: Mixing & Applications of Flooring Systems
- Sika® Method Statement: Evaluation and Preparation of Surfaces for Flooring Systems

## IMPORTANT CONSIDERATIONS

- Do not apply Sikafloor® MultiFlex PS-32 ECF on substrates with rising moisture.
- After application, the products must be protected from damp, condensation and water for at least 24 hours. Uncured material reacts in contact with water (foaming). During application care must be taken that no 'sweat' drops into fresh Sikafloor® MultiFlex PS-32 ECF (wear head and wrist bands).
- The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.
- Colour variations are un-avoidable due to raw materials. It can occur in colour shades such as light grey, yellow or orange where colour variations due to the carbon fibre content may be visible. Carry out a preliminary trial to assess.
- Under direct sun radiation there may be some discolouration and colour deviation, this has no influence on the function and performance of the coating.
- For exact colour matching, ensure the Sikafloor® MultiFlex PS-32 ECF in each area is applied from the same control batch numbers.
- Do not apply on substrates with a slope > 1 %.

- In smooth applications with UV exposure, use Sikafloor®- 305 W ESD as a seal coat.
- Under certain conditions, under floor heating or high ambient temperatures combined with high point loading, may lead to indentations in the resin.
- If heating is required do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of both CO<sub>2</sub> and H<sub>2</sub>O water vapour, which may adversely affect the finish. For heating use only electric powered warm air blower systems.
- Only start the application of Sikafloor® MultiFlex PS-32 ECF after the conductive priming coat has completely dried tack-free. Otherwise there is a risk of wrinkling or affecting the conductive coating and performance properties.
- Layer thickness of wearing course: ~1,5 mm. Excessive thickness (more than 2,5 kg/m<sup>2</sup>) causes reduced conductivity.
- Sika does not assume any liability for possible changes in the composition of the recommended cleaning- and maintenance agents and their effects on the floor characteristics.
- If the floor is exposed to mechanical and / or chemical exposure, the conductivity must be controlled regularly. If wear and tear occurs in the final conductive coating of the Sikafloor® MultiFlex PS-32 ECF, system must be refreshed. This must be coordinated with the authorized ESD-representative or equivalent.

All measurement values for the Sikafloor® MultiFlex PS-32 ECF system stated in the System Data Sheet (except those referring to proof statements) were measured under the following conditions:

Size of ESD-footwear:	42 (EU) (UK: 8; US: 8,5)
Weight test person:	90 kg
Ambient conditions:	+23 °C/50 %
Measurement device for the Resistance to Ground:	Metriso 2000 or 3000 (Warmbier) or comparable
Surface resistance probe:	Carbon Rubber electrode. Weight: 2,50 kg
Rubber pad hardness:	Shore A 60 (± 10)

The number of conductivity measurements is recommended in the table below:

Ready applied area	Number of measurements
<10 m <sup>2</sup>	6 measurements
<100 m <sup>2</sup>	10–20 measurements
<1000 m <sup>2</sup>	50 measurements
< 5000 m <sup>2</sup>	100 measurements

If values are lower/higher than required, additional measurements have to be carried out, ~30 cm around the point where the faulty readings are located. If the re-measured values are in accordance with the requirements, the total area is acceptable.

Installation of earthing points: Refer to Sika® Method Statement: Mixing & Applications of Flooring Systems. Numbers of earth connections: Per room at least 2 earthing points. The optimum number of earth connections depends on the local conditions and should be specified using available drawings.

## BASIS OF PRODUCT DATA

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

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