

SYSTEM DATA SHEET

Sikafloor® MultiFlex PS-35 ESD

Smooth, low VOC, polyurethane ESD flooring system

DESCRIPTION

Sikafloor® MultiFlex PS-35 ESD is a polyurethane, low VOC ESD flooring system. The system dissipates electrostatic charges (ESD) and protects personnel and sensitive equipment in electrostatic protected areas (EPA).

USES

Sikafloor® MultiFlex PS-35 ESD may only be used by experienced professionals.

The System is used in industrial buildings such as:

- Electronic facilities and data centres
- Microbiology and microchemistry production areas
- Automotive facilities

Please note:

The System may only be used for interior applications.

FEATURES

- Easy to apply
- Good resistance to UV exposure
- Good yellowing resistance
- Easy to refurbish, topcoat can be recoated
- Low maintenance
- Good resistance to specific chemicals
- Easy to refurbish, topcoat can be recoated

CERTIFICATES AND TEST REPORTS

Fire Classification EN 13501-1, GHENT

SYSTEM INFORMATION

System structure	Layer	Product
	1. Primer	Sikafloor®-151 or, Sikafloor®-161 Contact Sika Technical Service for advice on choosing the right primer for your project.
	2. Conductive primer + Earthing connection	Sikafloor®-220 W Conductive + Sikafloor® Conductive Set
	3. Conductive base coat	Sikafloor® BC 375 NAS
	4. ESD Top coat	Sikafloor®-305 W ESD

IMPORTANT

The system structure as described in the table must not be changed.

Composition	Combination of epoxy and polyurethane
Appearance	Smooth matt finish
Colour	Available in various colour shades.
Nominal thickness	~1.5 – 2.0 mm

TECHNICAL INFORMATION

Tensile adhesion strength	≥ 1.5 MPa	(EN 1542)
Electrostatic behaviour	Resistance to ground	RG < 10 ⁹ Ω (IEC 61340-4-1)
	Typical average resistance to ground	RG < 10 ⁵ -10 ⁶ Ω
	Body voltage generation	< 100 V
	System resistance	RG < 10 ⁹ Ω

ESD MEASUREMENT CONDITIONS AND SPECIFICATIONS

All measurement values for the system stated in the System Data Sheet (except those referring to proof statements) were measured using the following equipment and ambient conditions:

Condition or Equipment	Specification
Size of ESD-footwear	42 (EU) (UK: 8; US: 8,5)
Test person weight	90 kg
Ambient conditions	+23 °C/50 %
Measuring device for measuring resistance to ground	Metriso 2000 or 3000 (Warmbier) or comparable
Surface resistance probe	Carbon Rubber electrode. Weight: 2,50 kg Shore A (60 ±10)
Rubber pad hardness	Shore A (60 ±10)
Measuring device for measuring body voltage generation	Walking Test Kit WT 5000 (Warmbier) or comparable

IMPORTANT

ESD footwear requirements

The ESD shoes used in the EPA must have a resistance of < 5 MOhm according to IEC 61340-4-3 at climate class 1 (12 % relative humidity / +23 °C). In order to achieve charges of < 30 volts of human body charge during the walking test (at 12 % relative humidity / +23 °C), we recommend using the following ESD shoes: Weeger ESD clog, art. 48512-30, www.schuhweeger.de.

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

APPLICATION INFORMATION

Consumption	Layer	Product	Consumption
	Primer	Sikafloor®-150 Sikafloor®-161	1-2 × 0.3 - 0.5 kg/m ²
	Levelling (optional)	Sikafloor®-151 Sikafloor®-161	Refer to the individual Product Data Sheet.
	Conductive primer	Sikafloor®-220 W Conductive	1 × 0.08 - 0.10 kg/m ²
	Earthing connection	Sikafloor® Conductive Set	1 earthing point per approx. 200-300 m ² , min. 2 per room
	Conductive base coat	Sikafloor® BC 375 NAS	1 × 2.0 - 2.5 kg/m ²
	ESD Top coat	Sikafloor®-305 W ESD	1-2 × 0.18 - 0.2 kg/m ² /layer diluted with 10% of water

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.

Ambient air temperature	Maximum	+30 °C		
	Minimum	+10 °C		
Relative air humidity	Maximum	75% r.h.		
Dew point	Refer to the individual Product Data Sheet.			
Substrate temperature	Maximum	+30 °C		
	Minimum	+10 °C		
Substrate moisture content	Refer to the individual Product Data Sheet.			
Waiting time to overcoating	For the waiting time to overcoating of the primer, refer to the individual Product Data Sheet.			
	Before applying Sikafloor® BC 375 NAS on Sikafloor®-220 W Conductive, allow:			
	Temperature	Minimum	Maximum	
	+10 °C	~26 hours	~7 days	
	+20 °C	~17 hours	~5 days	
	+30 °C	~12 hours	~4 days	
	Before applying Sikafloor®-305 W ESD on Sikafloor® BC 375 NAS allow:			
	Temperature	Minimum	Maximum	
	+10 °C	~24 hours	~3 days	
	+20 °C	~16 hours	~48 hours	
+30 °C	~8 hours	~36 hours		
Before applying Sikafloor®-305 W ESD on Sikafloor®-305 W ESD allow:				
Temperature	Minimum	Maximum		
+10 °C	~48 hours	~10 days		
+20 °C	~24 hours	~8 days		
+30 °C	~16 hours	~7 days		
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
	+10 °C	~48 hours	~5 days	~10 days
	+20 °C	~24 hours	~3 days	~8 days
	+30 °C	~16 hours	~2 days	~7 days
	Note: Times apply when the last layer of the system has been applied. Times are affected by changing ambient conditions, particularly temperature and relative humidity.			

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.

FURTHER DOCUMENTATION

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

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

APPLICATION

Refer to recommendations stated in individual Product Data Sheet.

INSTALLATION OF EARTHING POINTS

Refer to Sika Method Statement: Sika Method Statement — Sikafloor® mixing and application
Number of earthing connections per room: Minimum of 2 earthing connections. The optimum number of earthing connections depends on the local conditions and must be specified on drawings or other contract documentation.

ESD CONDUCTIVITY MEASUREMENTS

Recommended number of conductivity measurements is specified in the following table:

Ready applied area	Number of measurements
< 10 m ²	6
≥ 10 m ² and < 100 m ²	10 to 20
≥ 100 m ² and < 1000 m ²	50
≥ 1000 m ² and < 5000 m ²	100

If the measurements yield values that are outside of the agreed specification, follow these steps:

1. Carry out one additional measurement within a radius of approximately 30 cm around the original measuring point.

If the value of the new measurement meets the agreed specification, the original measurement can be disregarded. If the value of the new measurement does not meet the agreed specification, repeat the measurement described above until the fulfilment of the requirements have been verified. If the requirements cannot be verified, contact Sika Technical Services.

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.

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All products are supplied under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and ISO 45001.



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