

SYSTEM DATA SHEET

Sikafloor® MultiDur ES-55 ESD

Smooth dissipative epoxy ESD flooring system

DESCRIPTION

Sikafloor® MultiDur ES-55 ESD is a smooth finish, epoxy ESD flooring system. The system is designed to dissipate electrostatic charges (ESD) and protect sensitive equipment in electrostatic protected areas (EPA).

USES

Sikafloor® MultiDur ES-55 ESD may only be used by experienced professionals.

The System is used in industrial buildings such as:

- Pharmaceutical facilities
- Automotive facilities
- Electronic facilities and data centres

Please note:

- The System may only be used for interior applications.

CHARACTERISTICS / ADVANTAGES

- Provides reliable and long lasting ESD protection
- Seamless surface requires minimal cleaning and maintenance
- Functional finish with outstanding appearance
- Low Airborne Molecular Contaminants (AMC) emissions
- Good resistance to specific chemicals
- Smooth gloss finish
- Good resistance to specific chemicals

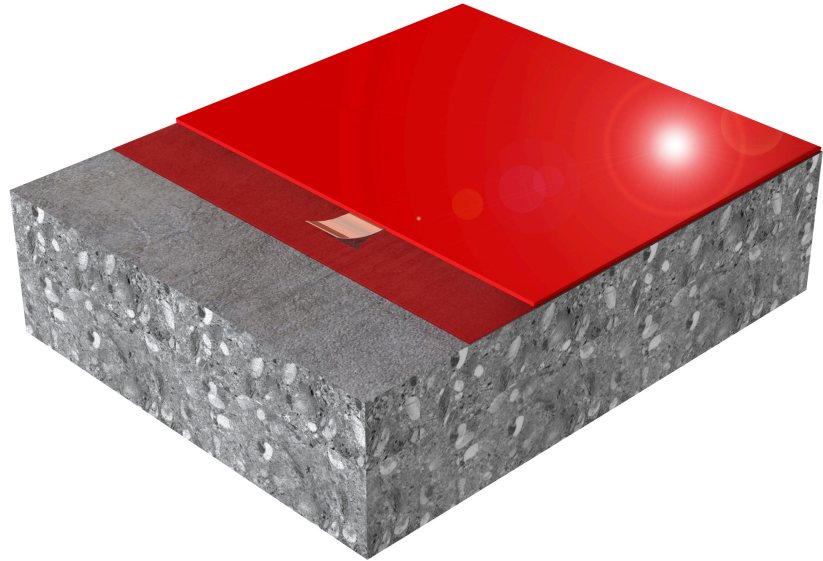
APPROVALS / CERTIFICATES

- Approval for ESD protective products acc. IEC 61340-5-1, RISE Institute, No. ESD-20-0023
- Insulation Resistance DIN VDE 0100-600, kiwa, Test report No. P 12819-E
- Fire Classification Report EN 13501-1, ofi, No. 2102463
- Electrostatic properties ASTM F 150, KIWA, Report No. P 13238-1-E

SYSTEM INFORMATION

System structure

Sikafloor® MultiDur ES-55 ESD



Layer	Product
Primer	Sikafloor®-151 Sikafloor®-161 Contact Sika technical service for information on choosing the right primer for your project.
Wearing layer	Sikafloor®-2350 ESD filled 20 % with quartz sand 0.08–0.3 mm (e.g. Sikadur®-504)

Composition	Epoxy
Colour	Cured system colour Available in the approximate colours RAL 1014, RAL 5012, RAL 6000, RAL 6010, RAL 6020, RAL 6027, RAL 6034, RAL 7001 RAL 7005, RAL 7011, RAL 7021, RAL 7032, RAL 7035, RAL 7038, RAL 7040, RAL 7045, RAL 7047, RAL 9002
Nominal thickness	1.5 mm to 2 mm

TECHNICAL INFORMATION

Reaction to fire	Class B _{fl} -s1		(EN 13501-1)
Electrostatic behaviour	Resistance to ground	$R_G < 10^9 \Omega$	(IEC 61340-4-1)
	Typical average resistance to ground	$R_G < 10^6-10^7 \Omega$	
	Body voltage generation	$< 100 \text{ V}$	(IEC 61340-4-5)
	System resistance	$R_G < 10^9 \Omega$	
<p>Note: Measurement results can be affected by ESD clothing, ambient conditions, measurement equipment, cleanliness of the floor and the test personnel.</p> <p>IMPORTANT</p> <p>ESD footwear requirements</p> <p>The ESD shoes used in the EPA must have a resistance of $< 5 \text{ MOhm}$ 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.</p>			

APPLICATION INFORMATION

Consumption	Self smoothing / resin screed			
	Layer	Product	Consumption	
	Primer	Sikafloor®-151 or Sikafloor®-161	1-2 × ~0.3–0.5 kg/m ²	
	Levelling (if required)	Sikafloor®-151 or Sikafloor®-161	Refer to the individual Product Data Sheet	
	Earthing connection	Sikafloor® Conductive Set	1 earthing point per ~200 m ² to 300 m ² . 2 per room minimum.	
Wearing layer	1 × Sikafloor®-2350 ESD filled with 20 % quartz sand 0.08–0.3 mm (e.g. Sikadur®-504)	1.5–2.5 kg/m ²		
<p>Note: With thinner layers, the chemical and mechanical resistance and the flow properties can be reduced.</p>				
Ambient air temperature	Maximum	+30 °C		
	Minimum	+15 °C		
Relative air humidity	Maximum	80 % r.h.		
Dew point	Refer to the individual Product Data Sheet.			
Substrate temperature	Maximum	+30 °C		
	Minimum	+15 °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.			
Applied product ready for use	Temperature	Foot traffic	Light traffic	Full cure
	+15 °C	~48 hours	~3 days	~7 days
	+20 °C	~24 hours	~48 hours	~4 days
	+30 °C	~16 hours	~36 hours	~3 days
<p>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.</p>				

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 INFORMATION

Refer to the following method statements:

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

IMPORTANT CONSIDERATIONS

- Refer to the individual Product Data Sheets for additional considerations related to Product.
- After application, protect the System from damp, condensation and direct water contact for at least 24 hours.
- Do not apply on substrates with rising moisture.
- No application on sloped substrates. Do not apply on substrates with a slope > 1 %.

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

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, you may repeat the measurement described above, until the fulfilment of the requirements have been verified. If the requirements cannot be verified, contact Sika technical services.

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.

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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ISO 9001, 14001, 45001 –
Lloyd's Register
Sika S.A. LLC
Sika International Chemicals LLC
SIO 9001, 14001, 45001 – SGS
Sika Gulf S.S.C. O.
ISO 9001, 14001 – SGS
Sika Saudi Arabia Limited

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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