BUILDING TRUST

SYSTEM DATA SHEET

Sikafloor® MultiFlex PS-32 ESD

Smooth, low VOC, polyurethane ESD floor system

PRODUCT DESCRIPTION

Sikafloor® MultiFlex PS-32 ESD is a polyurethane, coloured, low VOC emission, conductive, resin based floor coating system. It provides a hard-wearing, seamless, chemical resistant, tough-elastic, crack bridging, low maintenance, smooth matt finish. For internal industrial applications. Thickness ~1,5–2,0 mm.

USES

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

- Dissipative coloured indoor system for electrostatic protected areas (EPA).
- On concrete and cementitious screeds for industrial applications e.g. clean rooms in the electronics industry, microbiology/microchemistry sectors, production plants in the automobile industry, etc.
- Particularly suitable for indoor areas with requirements for the lowest electrostatic charge (low BVG (Body Voltage Generation)) and dissipative surface.

CHARACTERISTICS / ADVANTAGES

- Very low VOC emissions
- Water-based top coat
- Easy to apply
- Easy to refurbish, ESD topcoat can be recoated
- Low odour
- Good UV resistance, non-yellowing
- Easy to clean
- Conforms to the requirements of ANSI/ESD S20.20 and IEC 61340-5-1
- Matt surface finish

ENVIRONMENTAL INFORMATION

- Conformity with LEED v2009 IEQc 4.2: Low-Emitting Materials - Paints and Coatings - Sikafloor®-305 W ESD.

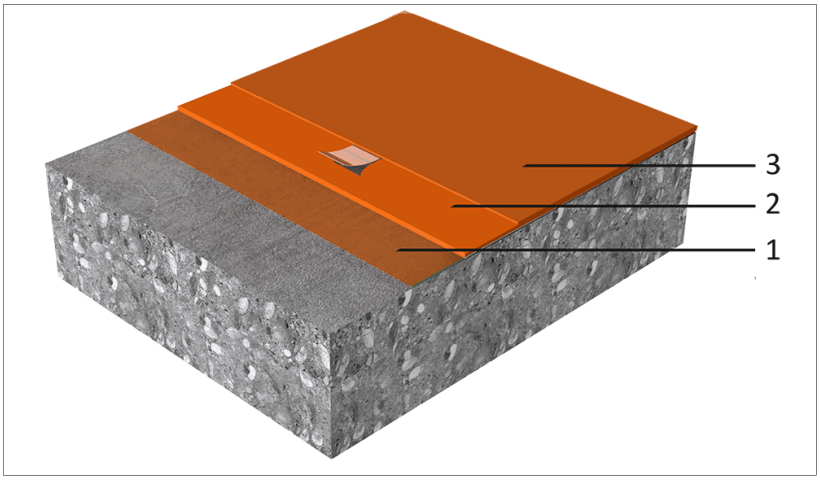
APPROVALS / STANDARDS

- 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.

SYSTEM INFORMATION

System Structure

Sikafloor® MultiFlex PS-32 ESD (~1,5–2,0 mm)



Layer	Product
1. Primer	Sikafloor®-150/-151
2. Base coat + Earthing connection	Sikafloor®-3240 + Sika® Earthing Kit
3. Final conductive coating	Sikafloor®-305 W ESD

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

Composition

Polyurethane

Appearance

Smooth matt finish

Nominal thickness

~1,5–2,0 mm

TECHNICAL INFORMATION

Tensile Strength

~14 N/mm² (14 days/+23 °C/50 % r.h.) (DIN EN ISO 527-2)

Tensile adhesion strength

> 1,5 N/mm² (ISO 4624)

Chemical Resistance

Resistant to many chemicals. Contact Sika Technical Services for additional information.

Thermal Resistance

Exposure*	Dry heat
Permanent	+50 °C
Short-term max. 7 days	+80 °C

Short-term moist/wet heat* up to +80 °C where exposure is only occasional (i.e. during steam cleaning etc.)
* No simultaneous chemical and mechanical exposure.

USGBC LEED Rating

Sikafloor®-305 W ESD conforms to the requirements of LEED EQ Credit 4.2: Low-Emitting Materials: Paints & Coatings. Reference Test Method 304: VOC Content < 100 g/l

Electrostatic Behaviour

Resistance to ground[1]	$R_g < 10^9\ \Omega$	(IEC 61340-4-1)
Typical average resistance to ground[2]	$R_g < \sim 10^5$–$10^6\Omega$	(DIN EN 1081)
Body voltage generation[2]	< 100 V	(IEC 61340-4-5)
System Resistance (Person/Floor/Shoe)	$R_g < 10^9\ \Omega$	(IEC 61340-4-5)

1 In accordance with IEC 61340-5-1 and ANSI/ESD S20.20.
2 Readings may vary, depending on ambient conditions (i.e. temperature, humidity) and measurement equipment.

APPLICATION INFORMATION

Consumption

Layer	Product	Consumption
1. Primer	Sikafloor®-150/-151	1–2 × ~0,3–0,5 kg/m²
2. Levelling (if required)	Sikafloor®-150/-151 levelling mortar	Refer to PDS of Sikafloor®-150/-151
3. Base coat	Sikafloor®-3240	~1,8 kg/m²/layer (~1 mm thickness)
4. Earthing connection	Sika® Earthing Kit	1 earthing point per approx. 200–300 m², min. 2 per room.
5. Final conductive coating	Sikafloor®-305 W ESD	1–2 × 0,18 – 0,2 kg/m²/layer

These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level and wastage etc.
When used in high wear conditions, e.g. castor chairs, a second layer of Sikafloor®-305 W ESD improves the mechanical properties of the final coating.
Lower consumption can cause roller marks, gloss differences and irregular surface structure. Higher consumption results in water retention and can cause pigment floatation as well as unsatisfactory conductivity.

Product Temperature

+10 °C min. / +30 °C max.

Ambient Air Temperature

+10 °C min. / +30 °C max.

Relative Air Humidity

80 % max.

Dew Point

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 floor finish.

Substrate Temperature

+10 °C min. / +30 °C max.

Substrate Moisture Content

Sikafloor® MultiFlex PS-32 ESD can be installed on substrates with a moisture content of ≤ 4 % (checked by Tramex) with no rising moisture. The substrate needs to be visibly dry and have a minimum tensile strength of 1,5 N/mm².

Waiting Time / Overcoating

Before applying Sikafloor®-3240 on Sikafloor®-156/160/161 allow:

Substrate temperature	Minimum	Maximum
+10 °C	24 hours	4 days
+20 °C	12 hours	2 days
+30 °C	8 hours	1 days

Before applying Sikafloor®-305 W ESD on Sikafloor®-3240 allow:

Substrate temperature	Minimum	Maximum
+10 °C	24 hours	72 hours
+20 °C	12 hours	48 hours
+30 °C	8 hours	36 hours

Before applying Sikafloor®-305 W ESD on Sikafloor®-305 W ESD allow:

Substrate temperature	Minimum	Maximum
+10 °C	48 hours	10 days
+20 °C	24 hours	8 days
+30 °C	16 hours	7 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	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 are approximate and will be affected by changing ambient conditions

VALUE BASE

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

- Sika® Method Statement: Sikafloor®-Cleaning Regime
- Sika® Method Statement: Mixing & Applications of Flooring Systems
- Sika® Method Statement: Evaluation and Preparation of Surfaces for Flooring Systems
- Sika® Method Statement: Sikafloor®-305 W ESD
- Individual Product Data Sheets within the flooring system

LIMITATIONS

- Do not apply Sikafloor® MultiFlex PS-32 ESD on substrates with rising moisture.
- After application, all 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 the fresh Sikafloor® MultiFlex PS-32 ESD, wear head and wrist bands.
- The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.
- Sikafloor®-305 W ESD must be diluted with 10 % water.
- Apply Sikafloor®-305 W ESD only to tack free Sikafloor-3240 resin.
- Ensure adequate ventilation during application and drying especially at temperatures < +13 °C, otherwise the reaction and drying processes may be affected.
- If the floor is exposed to mechanical and / or chemical loads, the conductivity must be controlled regularly. In case of wear and tear, Sikafloor®-305 W ESD must be refreshed. This must be coordinated with the authorised ESD-representative or equivalent.
- For exact colour matching, ensure the Sikafloor® MultiFlex PS-32 ESD in each area is applied from the same control batch numbers.
- Do not apply on substrates with a slope > 1 %.
- 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_2 and H_2O water vapour, which may adversely affect the finish. For heating use only electric powered warm air blower systems.
- 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.
- Measurement results can be affected by ESD clothing, ambient conditions, measurement equipment, cleanliness of the floor and test personnel.
- Rubber tyres may produce dark marks on the Sikafloor®-305 W ESD from plasticiser migration.
- If their are increased demands on the cleanability, Sikafloor®-305 W ESD can be over coated with the static dissipative floor polish "Jontec ESD" or "Jontec Destat" from Diversey Care or equivalent. Refer to the cleaning regime of Sikafloor®-305 W ESD.

All measurement values for the Sikafloor® MultiFlex PS-32 ESD 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 m²	6 measurements
<100 m²	10–20 measurements
<1000 m²	50 measurements
< 5000 m²	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 must be specified using available drawings.

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.

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.

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