BUILDING TRUST

PRODUCT DATA SHEET

Sikafloor®-237 EDF

2-part epoxy electrostatically dissipative self-smoothing flooring

DESCRIPTION

Sikafloor®-237 EDF is a two part, self-smoothing, coloured epoxy resin coating, it has carbon nanotubes filler to provide very good appearance.

USES

Sikafloor®-237 EDF may only be used by experienced professionals.

- Decorative and protective dissipative self-smoothing system for concrete or cement screeds with normal up to medium heavy wear.
- Particularly suitable for areas with requirements for dissipative surface.
- Typical applications include industries that process, assemble, install,package, test or transport, such as clean room, pharmaceutical, automotive industries etc.

CHARACTERISTICS / ADVANTAGES

- Single-Walled Carbon Nanotubes
- Electrostatically dissipative
- Good mechanical and chemical resistance
- low consumption
- Easy application
- Easy to clean
- Solvent free

APPROVALS / STANDARDS

- Meets to the standard of GB/T 22374-2018

PRODUCT INFORMATION

Chemical base	Epoxy resin	
Packaging	Part A:	20.5 kg/pail
	Part B:	4.5 kg/pail
	Part A+B:	25 kg/set
Appearance / Colour	Resin - part A	coloured, liquid
	Hardener - part B	transparent, liquid
	Sikafloor®-237 EDF is available in a range of colors,please inquire Sika. Due to the inclusion of conductive substance materials, it is not possible to match the colors exactly to the requirements, which makes it more difficult for brightly colored colors (such as yellow and orange).	
Shelf life	12 months from date of production.	
Storage conditions	The product has to be stored in closed, sealed and undamaged packaging in dry conditions at temperatures between +5°C and +30°C. The packagingmust be protected from direct sunlight.	

Density	Part A:	~1.61 kg/l	(GB/T 6750)
	Part B:	~1.03 kg/l	
	Mixed Resin:	~1.45 kg/l	
	All density values at +23 °C.		
Volatile organic compound (VOC) content	< 60 g/L		ASTM D2369
Solid content by weight	~100%		
Solid content by volume	~100%		

TECHNICAL INFORMATION

Shore D Hardness	~80	ASTM D2240
Abrasion Resistance	< 0.03 g	ASTM D4060
Compressive Strength	≥ 45 MPa	ASTM C579
Tensile Strength	≥ 1.5 MPa (concrete failed)	ASTM D4541
CHEMICAL RESISTANCE	Resistant to many chemicals. Please contact Sika technical service for detailed information.	

Thermal Resistance

exposure*	Dry heat
Permanent	+50 °C
Short-term	max. 7 d +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.

Electrostatic Behaviour (SJ/T 11294-2018)

Resistance to ground / point to point resistance	1*10⁶Ω ~1*10⁹Ω
System Resistance (Person/Floor/Shoe)	< 10⁹ Ω

1) In accordance with SJ/T 11294-2018 and GB/T 22374-2018
2) Readings may vary, depending on ambient conditions (i.e. temperature, humidity) and measurement equipment.

Mixing ratio

A : B = 82 : 18 (by weight)

Consumption

Self-smoothing wearingcourse (Film thickness ~0.5 mm)

Coating System	Product	Consumption
Primer:	Sikafloor®-161 HC	0.3-0.5 kg/m²
Leveling(Optional)	Sikafloor®-161 HC	Refer to the PDS of Sikafloor®-161 HC
Conductive layer:	Sikafloor®-220 W Conductive	0.08-0.10 kg/m²
Wearing coat:	Sikafloor®-237 EDF	0.8kg/m²(DFT ~0.5mm)

These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc. For detailed info, please refer to method statement.

Product Temperature	+10 °C min. / +30 °C max.
Ambient Air Temperature	+10 °C min. / +30 °C max.
Relative Air Humidity	80% 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 % pbw moisture content.
Test method: Sika Tramex Meter, CM-measurement or Oven-Dry-Method.
No rising moisture according to ASTM (Polyethylene-sheet).

Pot Life

Temperature	Time
+25°C	~45min

Waiting Time / Overcoating

Before applying Sikafloor®-237 EDF on Sikafloor®-220 W conductive allow:

Substrate temperature	Minimum	Maximum
+10°C	24 hours	3 days
+20°C	15 hours	2 days
+30°C	10 hours	1 day

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

Applied Product Ready for Use

Temperature	Foot traffiic	Light traffic	Full cure
+10°C	~ 30 hours	~ 5 days	~ 10 days
+20°C	~ 24 hours	~ 3 days	~ 7 days
+30°C	~ 16 hours	~ 2 days	~ 5 days

Note: Times are approximate and will be effected by changing ambient conditions.

Systems

Self-levelling system: approx. 0.5mm

Primer:	1 x Sikafloor®-161
Earthing connection:	Sikafloor®-Earthing Kit
Conductive coat:	1 x Sikafloor®-220 W Conductive
Conductive wearing coat:	1 x Sikafloor®-237 EDF

Note: This system configuration must be fully complied with as described and may not be changed.

BASIS OF PRODUCT DATA

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.

IMPORTANT CONSIDERATION

- This product may only be used by experienced professionals.
- Placing of earthing plates: Sikafloor® Earthing Kit conductor system are highly recommended.
- Do not apply Sikafloor®-237 EDF on substrates in which significant vapour pressure may occur.
- Do not blind the primer.
- Freshly applied Sikafloor®-237 EDF must be protected from damp, condensation and water for at least 24 hours.
- Avoid forming water on the primer that has been applied.
- Only start application of Sikafloor® conductive coat after the priming coat has dried tack-free all over. Otherwise there is a risk of wrinkling or impairing of the conductive properties.
- Under certain conditions, underfloor heating or high ambient temperatures combined with high point loading, may lead to imprints 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.
- If the consumption is lower (less than 0.6 kg/m²) ,some fibres maybe on the surface. so please apply the film as evenly as posible.
- Before the application of a conductive flooring system,a reference area has to be applied. This reference area must be assessed and accepted from the contractor/client. The desired result and method of conductivity measurement must be stated in the Specification and Method Statement. The number of conductivity measurements is strongly recommended to be as shown in the table below:

Applied area	Number of measurements
< 10 m²	1 measurement /m²
10 - 100 m²	10 - 20 measurement
> 100 m²	10 measurements /100m²

The measuring points must have a distance of at least 50 cm to the next measuring point. In case of a measurement lower/higher than required, an additional measurement has to be carried out within 50 cm of the point with the insufficient result.
Note: The measurement results of Sikafloor®-237 EDF will vary slightly due to the difference in surface profile.The measurement result of the resistance value is obviously affected by factors such as the clothes worn by the construction personnel, such as: ESD anti-static footwear, socks, weight, atmospheric environment, probes and the cleanliness of the ground.

- Placing of earthing plates: If the Sikafloor® Earthing Kit conductor system (system of anchored brass-plates with stable earth connection) is applied, the instructions for use have to be followed exactly.

Every earthing point is able to conduct approx. 300 m². Ensure the longest distance of each point in the area is max. 10 m to the next earthing point. Clean the earthing spots carefully. For longer distances, additional earthing points have to be placed. If site conditions do not allow placing of additional earthing points, longer distances (>10 m) have to be bridged with copper tapes. The earthing spots have to be connected to the ring-mains. This work must be executed and approved by an electrical engineer and in accordance with any relevant regulations.

- Numbers of earth connections: Per room at least 2 earthling points. The optimum number of earth connections depends on the local conditions and should be specified with documents. The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking -reducing or breaking conductivity.For exact colour matching, ensure the Sikafloor®-237 EDF in each area is applied from the same control batch numbers.The measuring points must have a distance of at least 50 cm to the next measuring point. In case of a measurement lower/higher than required,an additional measurement has to be carried out within 50 cm of the point with the insufficient result.

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

EQUIPMENT

Sikafloor®-237 EDF 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 a profiled open textured surface.
- Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed.
- Repairs to substrate, filling of blowholes/voids and surface levelling can 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 up 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. add all of part B has been added to part A, continuously mix for 3 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

- Prior to application, confirm substrate moisture content, r.h. and dew point. Moisture content of concrete substrate must be ≤ 4% by mass (pbw – part by weight) as measured with a Sika Tramex or Tramex® CME/CMExpert type concrete moisture meter on mechanically prepared surface according to this product data sheet (preparation to CSP-3 to CSP-4 as per ICRI guidelines).
- Thin self-leveling layer: Sikafloor®-237 EDF is applied with a fine serrated trowel, (max. 1 mm teeth), Roll immediately in two directions with a spiked roller to ensure even thickness and to remove entrapped air.

CLEANING OF TOOLS

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

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product 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 can always refer to the most recent version of the local Product Data Sheet for the relevant product, available on our website. The information in any downloaded version is valid as of the time of download.

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