BUILDING TRUST

PRODUCT DATA SHEET

Sikafloor®-3240 ECF

Polyurethane self-smoothing conductive low VOC resin floor

DESCRIPTION

Sikafloor®-3240 ECF is a 2-part polyurethane, coloured, low VOC emission, conductive, resin based floor coating. It provides a hard-wearing, seamless, chemical resistant, tough-elastic, crack bridging, low maintenance, smooth gloss finish. For industrial applications. Internal use.
Sikafloor®-3240 ECF is the main wearing layer of the Sikafloor® MultiFlex PS-32 ECF System.

USES

Sikafloor®-3240 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
- IBU Environmental Product Declaration (EPD) available

PRODUCT INFORMATION

Composition	Polyurethane	
Packaging	Part A	20,25 kg containers
	Part B	4,75 kg containers
	Part A+B	25,0 kg ready to mix units
	Refer to current price list for packaging variations	
Shelf life	12 months from date of production	
Storage conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C. Always refer to packaging.	

Appearance and colour	Part A	coloured, liquid
	Part B	Brown
	Available in various colour shades. Applied colours selected from colour charts will be approximate. Colour deviations may occur due to carbon fibre filaments. It is recommended that applied colour samples must be compared against colour chart colours under the same lighting conditions before final selection. When product is exposed to direct sunlight there may be some discolouration and colour variation, this has no influence on the function and performance of the coating.	
Density	Part A	1,42 kg/l (DIN EN ISO 2811-1)
	Part B	1,21 kg/l
	Mixed resin (Part A+B)	1,38 kg/l
	Sikafloor®-3240 ECF is applied without filling with quartz sand. All density values at +23 °C.	
Solid content by mass	~100 %	
Solid content by volume	~100 %	

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/mm² (14 days/23 °C/50 % r.h.)	(DIN EN ISO 527-2)
Tensile strain at break	~120 % (resin / 14 days / +23 °C / 50 % r.h)	(ISO 527-2)
Tensile adhesion strength	>1,5 N/mm² (failure in concrete)	(EN 13892-8)
Electrostatic behaviour	Resistance to ground[1] $R_g < 10^9\ \Omega$	(IEC 61340-4-1)
	Typical average resistance to ground[2] $R_g \leq 10^6\ \Omega$	(DIN EN 1081)
	1 This product fulfils the requirements of ATEX 137 2 Readings may vary, depending on ambient conditions (i.e. temperature, humidity) and measurement equipment.	
Chemical resistance	Resistant to many chemicals. Contact Sika Technical Services for additional information.	

SYSTEM INFORMATION

Systems	Refer to the Sikafloor® MultiFlex PS-32 ESD system data sheet

APPLICATION INFORMATION

Mixing ratio	Part A : Part B = 81 : 19 (by weight)
Consumption	~2,1–2,3 kg/m². 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 information, refer to the system data sheet: Sikafloor® MultiFlex PS-32 ESD
Layer thickness	Wearing course: ~1,5 mm
Ambient air temperature	+10 °C min. / +20 °C max. < 80 % r.h +20 °C min. / +30 °C max. < 75 % r.h
Relative air humidity	~75–80 %

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 surface of the applied product. Low temperatures and high humidity conditions increase the probability of blooming.

Substrate temperature

+10 °C min. / +30 °C max.

Substrate moisture content

≤4 % parts by weight.
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.

Pot Life

Temperatures	Time
+10 °C	~40 minutes
+20 °C	~30 minutes
+30 °C	~20 minutes

Waiting time to overcoating

Before overcoating Sikafloor®-3240 ECF allow:

Substrate temperature	Minimum	Maximum
+10 °C	~30 hours	~72 hours
+20 °C	~24 hours	~48 hours
+30 °C	~16 hours	~36 hours

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	1 day	3 days	9 days
+20 °C	12 hours	2 days	5 days
+30 °C	8 hours	1 day	3 days

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

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.

FURTHER INFORMATION

- Sika Method Statement: Evaluation and Preparation of Surfaces for Flooring Systems
- Sika Method Statement: Mixing & Application of Flooring Systems
- Sikafloor® Cleaning Regime

IMPORTANT CONSIDERATIONS

- Do not apply Sikafloor®-3240 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®-3240 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®-3240 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_2 and H_2O water vapour, which may adversely affect the finish. For heating use only electric powered warm air blower systems.
- Only start the application of Sikafloor®-3240 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/m²) 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®-3240 ECF, system must be refreshed. This must be coordinated with the authorized ESD-representative or equivalent.
- If maximum waiting time is exceeded, the surface must be appropriately prepared preferably by grinding to obtain a mechanical key between the layers.

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.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Cementitious substrates (concrete / screed) must be structurally sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum tensile strength of 1,5 N/mm².
Substrates must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings, laitance, surface treatments and loose friable material.
Cementitious substrates must be prepared mechanically using suitable abrasive blast cleaning or planing / scarifying equipment to remove cement laitance and achieve an open textured gripping surface profile suitable for the product thickness. (Reference: CSP 3 International Concrete Repair Institute or equivalent).
High spots can be removed by grinding.
Weak cementitious substrates must be removed and surface defects such as blow holes and voids must be fully exposed.
Repairs to the substrate, filling of cracks, blowholes/voids and surface levelling must be carried out using appropriate products from the Sikafloor®, Sikadur® and Sikagard® range of materials. Products must be cured before applying Sikafloor®-3240 ECF.
All dust, loose and friable material must be completely removed from all surfaces before application of the product and associated system products, preferably by vacuum extraction equipment.

MIXING

Prior to mixing all parts, mix part A (resin) using a low speed double paddle electric stirrer (300–400 rpm) or other suitable equipment to mix liquid and all the coloured pigment until a uniform colour has been achieved. Add part B (hardener) to part A and mix part A + B continuously for 3,0 minutes until a uniformly coloured mix has been achieved. To ensure thorough mixing pour materials into a clean container and mix again for at least 1,0 minute to achieve a smooth consistent mix. Excessive mixing must be avoided to minimise air entrainment. During the final mixing stage, scrape down the sides and bottom of the mixing container with a straight edge trowel or spatula at least once to ensure complete mixing. Mix full units only.
Mixing time for A+B = ~4,0 minutes.

APPLICATION

Prior to application, confirm substrate moisture content, relative air humidity, dew point, substrate, air and product temperatures.
Pour mixed Sikafloor®-3240 ECF onto prepared substrate and spread evenly using a suitable trowel or pin leveller to the required thickness. If required smooth the surface again to achieve an aesthetically higher grade of finish. Spike roller (steel) immediately in two directions at right angles to each other passing only once in each direction to remove trowel marks, aid air release, ensure an even thickness and obtain the required surface finish.

CLEANING OF EQUIPMENT

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

MAINTENANCE

CLEANING

To maintain the appearance of the floor after application, Sikafloor®-3240 ECF must have all spillages removed. Sika Method Statement: Sikafloor®-Cleaning Regime.

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

Any information or suggestions for use concerning Sika's products, which we either in writing or orally have given buyers or end-users of the product, have been given in good faith based on our own experiences and based on approved praxis and the technological and scientific knowledge on the time of giving such suggestions and information, which are given without any type of guarantees, and which do not lead to any further responsibility from Sika Danmark A/S, besides what is stated in the sales agreement in question. The buyer or end-user should themselves investigate or otherwise make sure, that our products are suitable for the use in question and further make sure that the products are kept and used correct and in agreement with the published rules and considering the actual conditions in order to avoid damages or less satisfactory results. Any order is accepted and any deliverance is affected according to the general terms of sales and delivery from Sika Danmark A/S, which are considered known and accepted, and which could be handed out when asked for. Our catalogues are not up-dated automatically. The present product data sheet is only for use in Denmark. Values stated in the present product data sheet should be seen as recommended, unless stated otherwise.

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