BUILDING TRUST

PRODUCT DATA SHEET

Sikafloor®-169

EPOXY BINDER FOR MORTARS, SCREEDS AND SEAL COATS

DESCRIPTION

Sikafloor®-169 is a 2- part, low yellowing, low viscous, transparent epoxy resin binder for mortars, screeds and seal coats. For normal up to medium heavy and heavy mechanical loading conditions. Internal use.

USES

Sikafloor®-169 may only be used by experienced professionals.

- Transparent binder for coloured quartz mortars, screeds and Sikafloor® Decodur systems
- Transparent sealer coat for broadcast coloured quartz mortar screeds and Sikafloor® Decodur systems
- Normal up to medium heavy and heavy mechanical loading conditions
- Food and pharmaceutical industries, show rooms, workshops and production areas etc.

CHARACTERISTICS / ADVANTAGES

- Transparent
- Low VOC-content
- Low yellowing
- Good mechanical and abrasion resistance
- Low viscous
- Multi-purpose binder

ENVIRONMENTAL INFORMATION

- Conformity with LEED v4 MRc 2 (Option 1): Building Product Disclosure and Optimization – Environmental Product Declarations
- Conformity with LEED v4 MRc 4 (Option 2): Building Product Disclosure and Optimization - Material Ingredients
- Conformity with LEED v2009 IEQc 4.2: Low-Emitting Materials - Paints and Coatings
- IBU Environmental Product Declaration (EPD)
- VOC emission certificate according to AgBB und DIBt approval requirements, eurofins

APPROVALS / STANDARDS

- Particle Emission, Biological Stress ISO 846, Sikafloor®-169/-DecoFiller/-304 W, CSM Fraunhofer, Certificate No. SI/1008-533
- Emission Behaviour EN 13813, Sikafloor®-144/-156/-161/-264/-169/-304 W, Sikagard®-186, DIBt, Certificate No. Z-156.605-1004
- Sliding test DIN 51130, Sikafloor®-169, Roxeler, Certificate No. 020109-15-11
- Sliding test DIN 51131, Sikafloor®-169, Roxeler, Certificates No. 020108-13-30a, 020108-13-31a, 020109-15-10a, 020109-15-13a, 020109-15-4a, 020171-14-1a, 020197-15-1a, 020197-15-5a
- Coating compatibility test PV 3.10.7, Sikafloor®-169, HQM, Report No. 14-04-14201871-7
- CE Marking and Declaration of Performance to EN 13813 - Resin screed material for internal use in buildings - Sikafloor®-169
- CE Marking and Declaration of Performance to EN 1504-2 - Surface protection product for concrete - Coating - Sikafloor®-169

PRODUCT INFORMATION

Chemical Base

Epoxy

Packaging

Part A	7,5 kg container
Part B	2,5 kg container
Part A+B	10 kg unipack
Part A	190 kg drum
Part B	190 kg drum

Refer to current price list for packaging variations.

Appearance / Colour

Final floor appearance: Gloss finish
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.

Resin - Part A	cloudy liquid
Hardener - Part B	yellowish, liquid

Shelf Life

24 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.

Density

Part A	~1,1 kg/l	(DIN EN ISO 2811-1)
Part B	~1,0 kg/l	
Mixed resin	~1,1 kg/l	

All Density values at +23 °C.

TECHNICAL INFORMATION

Shore D Hardness

~80 (7 days / +23 °C) (DIN 53 505)

Abrasion Resistance

47 mg (CS 10/1000/1000) (8 days / +23 °C) (DIN 53 505)

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 max. 12 hours	+100 °C

Short-term moist/wet heat* up to +80 °C where exposure is only occasional (steam cleaning etc.).
* No simultaneous chemical and mechanical exposure and only in combination with Sikafloor® systems as a broadcast system with ~3 - 4 mm thickness.

SYSTEM INFORMATION

Systems

Refer to the following System Data Sheets:
- Sikafloor® Decodur ES-22 Granite
- Sikafloor® Decodur ES-26 Flake
- Sikafloor® Decodur EB-26 Quartz
- Sikafloor® Decodur EM-21 Compact

APPLICATION INFORMATION

Mixing Ratio

Mixed resin
Part A : Part B = 75 : 25 (by weight)
Mixed resin and Decodur Part C filler
Sika-CompactFloor: 1 part resin: 1 part Sikafloor®-CompactFiller
Wearing course Sika-DecoFloor: 1 part resin: 1,5 part Sikafloor®-DecoFiller

Consumption

~0,15 kg/m² applied as a top coat
~0,7-2 kg/m² applied as a wearing course
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 Sheets: Sikafloor® Decodur ES-22 granite, Sikafloor® Decodur ES-26 flake, Sikafloor® Decodur EB-26 Quartz and Sikafloor® Decodur EM-21 Compact.

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.
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).

Pot Life

Temperature	Time
+10 °C	~60 minutes
+20 °C	~30 minutes
+30 °C	~20 minutes

Curing Time

Before overcoating Sikafloor®-169 allow:

Substrate temperature	Minimum	Maximum
+10°C	45 hours	4 days
+20°C	36 hours	3 days
+30°C	24 hours	2 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	~36 hours	~5 days	~10 days
+20 °C	~12 hours	~3 days	~7 days
+30 °C	~8 hours	~2 days	~5 days

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

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.
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®-169.
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 separately part A (resin) using a low speed single paddle electric stirrer (300–400 rpm). Add Part B (hardener) to Part A and mix part A + B continuously for 2,0 minutes until a uniform mix has been achieved. When parts A and B have been mixed. Using a double paddle (axis) electric stirrer (> 700 W), pan type revolving or forced action mixer or other suitable equipment (free fall mixers must not be used). Gradually add the required Decodur Part C filler or for mortars the appropriate granulometry of aggregate. Mix for a further 2,0 minutes until a uniform mix has been achieved. To ensure thorough mixing, pour materials into another container and mix again 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 flat or straight edge trowel at least once to ensure complete mixing. Mix full units only. Mixing time for A+B = 2,0 minutes. A+B+C = 4,0 minutes.

APPLICATION

Refer to the System Data Sheets: Sikafloor® Decodur ES-22 Granite, Sikafloor® Decodur ES-26 Flake, Sikafloor® Decodur EB-26 Quartz and Sikafloor® Decodur EM-21 Compact.

CLEANING OF TOOLS

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

FURTHER DOCUMENTS

- Sika® Method Statement: Evaluation and Preparation of Surfaces for Flooring Systems
- Sika® Method Statement: Mixing & Application of Flooring Systems
- Sika® Method Statement: Sikafloor®-Cleaning Regime
- System Data Sheet: Sikafloor® Decodur ES-22 Granite
- System Data Sheet: Sikafloor® Decodur ES-26 Flake
- System Data Sheet: Sikafloor® Decodur EB-26 Quartz
- System Data Sheet: Sikafloor® Decodur EM-21 Compact

LIMITATIONS

- After application, Sikafloor®-169 must be protected from damp, condensation and direct water contact or at least 24 hours
- The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective surface cracking.
- Under certain conditions, under floor heating or high ambient temperatures combined with high point loading, may lead to indentations in the resin.
- If temporary 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.
- Do not apply on substrates with rising moisture.
- Trials must be carried out on screed and mortar mixes to confirm and evaluate suitable aggregate colour blends and size distribution (granulometry).
- Free fall mixers must not be used for mixing.

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.

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.

ECOLOGY

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.

DIRECTIVE 2004/42/CE - LIMITATION OF EMISSIONS OF VOC

According to the EU Directive 2004/42/CE, the maximum allowed content of VOC (product category IIA / x type xx) is 500 g/l (Limits 2010) for the ready to use product.
The maximum content of Sikafloor®-169 is ≤ 500 g/l VOC for the ready to use product.

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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