

# PRODUCT DATA SHEET

## Sikafloor®-169

### 2-PART EPOXY BINDER FOR MORTARS, SCREEDS AND SEAL COATS

#### DESCRIPTION

Sikafloor®-169 is a two part, very low yellowing, low viscous, transparent epoxy resin.  
"Total solid epoxy composition acc. to the test method Deutsche Bauchemie e.V. (German Association for construction chemicals)"

#### USES

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

Sikafloor®-169 is used as:

- Transparent binder for coloured quartz mortars and screeds like Sikafloor® Decodur ES-22 Granite, Sikafloor® Decodur ES-26 Flake, Sikafloor® Decodur EB-26 Quartz and Sikafloor® Decodur EM-21 Compact
- Transparent sealer coat for broadcast colour quartz mortar screeds and smooth coatings fully broadcast to excess with coloured chips
- Suitable for normal up to medium heavy and heavy mechanical loading
- Particularly used in the food and pharmaceutical industries, for show rooms, workshops and production areas etc.

#### CHARACTERISTICS / ADVANTAGES

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

#### ENVIRONMENTAL INFORMATION

Sikafloor®-169 conforms to the requirements of LEED EQ Credit 4.2: Low-Emitting Materials: Paints & Coatings EPA Reference Test Method 24 VOC Content < 100 g/l

#### APPROVALS / STANDARDS

- Biological resistance certificate Sikafloor®-169 CSM Statement of Qualification – ISO 846, very good - Report No. SI 1008-533.
- Food compliance according to EC Nr. 1935/2004 and the German Food and Feed Act, Hygiene Institut des Ruhrgebiet; test report H-193755-10 August 2010 ( tested system: Sikafloor® -169 sealed with Sikafloor®-304 W )
- Eurofins Emission testing of Sikafloor®-169 according to the AgBB-scheme and guidelines of the DiBt (AgBB – Committee for Health-related Evaluation of Building Products, DiBt – German Institute for Building Technology).
- Sampling, testing and evaluation were performed according to ISO-16000, Report No. 766563C.
- Synthetic resin screed material according to EN 13813:2002, Declaration of Performance 02 08 01 02 009 0000010 1008, certified by notified factory production control certification body 0921, certificate of conformity of the factory production control 2017, and provided with the CE marking.
- Coating for surface protection of concrete according to EN 1504-2:2004, Declaration of Performance 02 08 01 02 009 0000010 1008, certified by notified factory production control certification body 0921, certificate of conformity of the factory production control 2017, and provided with the CE marking.



## PRODUCT INFORMATION

<b>Chemical Base</b>	Epoxy		
<b>Packaging</b>	Part A:	6.4 ltr or 7.4 kg containers	
	Part B:	2.6 ltr or 2.6kg containers	
	Part A+B:	9 ltr or 10 kg kit	
<b>Appearance / Colour</b>	Resin - part A:	turbid, liquid	
	Hardener - part B:	yellowish, liquid	
<b>Shelf Life</b>	24 months from date of production		
<b>Storage Conditions</b>	The product must be stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between +5 °C and +30 °C. Protect from direct sunlight.		
<b>Density</b>	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

<b>Shore D Hardness</b>	~80 (7 days / +23 °C)	(DIN 53 505)
<b>Abrasion Resistance</b>	47 mg (CS 10/1000/1000) (8 days / +23 °C)	(DIN 53 505)
<b>Chemical Resistance</b>	Resistant to many chemicals. Contact Sika technical service for specific information.	
<b>Thermal Resistance</b>	<b>Exposure*</b>	<b>Dry heat</b>
	Permanent	+50 °C
	Short-term max. 7 d	+80 °C
	Short-term max. 12 h	+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 approx. 3 - 4 mm thickness.		

## SYSTEM INFORMATION

<b>Systems</b>	Please refer to the system data sheet of :	
	Sikafloor® Decodur ES-22 Granite	Smooth low voc coloured granite effect epoxy floor covering
	Sikafloor® Decodur ES-26 Flake	Smooth low voc coloured full flaked epoxy floor covering
	Sikafloor® Decodur EB-26 Quartz	Slip resistant low voc colour quartz broadcasted epoxy floor covering
	Sikafloor® Decodur EM-21 Compact	Smooth high resistant power floated broadcast colour quartz epoxy screed

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	Part A : part B = 75 : 25 (by weight)																		
<b>Consumption</b>	<p>~0.15 kg/m<sup>2</sup> applied as a top coat          ~0.7-2 kg/m<sup>2</sup> 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 info, please refer to the System data sheet Sikafloor® Decodur ES-22 granite, Sikafloor® Decodur ES-26 flake, Sikafloor® Decodur EB-26 Quartz and Sikafloor® Decodur EM-21 Compact.</p>																		
<b>Ambient Air Temperature</b>	+10 °C min. / +30 °C max.																		
<b>Relative Air Humidity</b>	80 % r.h. max.																		
<b>Dew Point</b>	<p>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.          Note: Low temperatures and high humidity conditions increase the probability of blooming.</p>																		
<b>Substrate Temperature</b>	+10 °C min. / +30 °C max.																		
<b>Substrate Moisture Content</b>	<p>&lt; 4 % pbw moisture content.          Test method: Sika®-Tramex meter, CM-measurement or Oven-dry-method.          No rising moisture according to ASTM (Polyethylene-sheet).</p>																		
<b>Pot Life</b>	<b>Temperature</b>	<b>Time</b>																	
	+10 °C	~ 60 minutes																	
	+20 °C	~ 30 minutes																	
	+30 °C	~ 20 minutes																	
<b>Curing Time</b>	<p>Before overcoating Sikafloor®-169 allow:</p> <table border="1"> <thead> <tr> <th>Substrate temperature</th> <th>Minimum</th> <th colspan="2">Maximum</th> </tr> </thead> <tbody> <tr> <td>+10°C</td> <td>45 hours</td> <td colspan="2">4 days</td> </tr> <tr> <td>+20°C</td> <td>36 hours</td> <td colspan="2">3 days</td> </tr> <tr> <td>+30°C</td> <td>24 hours</td> <td colspan="2">2 days</td> </tr> </tbody> </table> <p>Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.</p>			Substrate temperature	Minimum	Maximum		+10°C	45 hours	4 days		+20°C	36 hours	3 days		+30°C	24 hours	2 days	
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<b>Applied Product Ready for Use</b>	<b>Temperature</b>	<b>Foot traffic</b>	<b>Light traffic</b>	<b>Full cure</b>															
	+10 °C	~ 36 hours	~ 5 days	~ 10 days															
	+20 °C	~ 12 hours	~ 3 days	~ 7 days															
	+30 °C	~ 8 hours	~ 2 days	~ 5 days															
	<p>Note: Times are approximate and will be affected by changing ambient conditions.</p>																		

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY / PRE-TREATMENT

- The concrete substrate must be sound and of sufficient compressive strength (minimum 25 N/mm<sup>2</sup>) with a minimum pull off strength of 1.5 N/mm<sup>2</sup>.
- The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc.
- 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. When all of part B has been added to part A, mix continuously for 2 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 minimise air entrainment.

When using an additional C component like the Sikafloor®-CompactFiller or the Sikafloor®-DecoFiller, please add the C component after Parts A and B have been mixed, in the correct mixing ratio (Slurry Sikafloor®-CompactFloor; 1 part resin: 1 part Sikafloor®-CompactFiller; Wearing course Sikafloor®-DecoFloor; 1 part resin: 1,5 part Sikafloor®-DecoFiller) and mix for a further 2 minutes until a uniform mix has been achieved.

For mortars add the premixed Sikafloor®-169 to the aggregates and mix until a uniform mix has been achieved.

#### **Mixing Tools:**

Sikafloor®-169 must be thoroughly mixed using a low speed electric stirrer (300 - 400 rpm) or other suitable equipment. For the preparation of mortars use a forced action mixer of rotating pan, paddle or trough type. Free fall mixers must not be used.

#### **APPLICATION**

Please refer to the System data sheet 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 Thinner C immediately after use. Hardened and/or cured material can only be removed mechanically

#### **FURTHER DOCUMENTS**

##### **Substrate quality & Preparation**

Please refer to Sika Method Statement: "EVALUATION AND PREPARATION OF SURFACES FOR FLOORING SYSTEMS".

##### **Application instructions**

Please refer to Sika Method Statement: "MIXING & APPLICATION OF FLOORING SYSTEMS".

##### **Maintenance**

Please refer to "Sikafloor®- CLEANING REGIME".

#### **LIMITATIONS**

- Do not apply Sikafloor®-169 on substrates with rising moisture.
- Freshly applied Sikafloor®-169 should be protected from damp, condensation and water for at least 24 hours.
- Trials should be carried out on mortar mixes to confirm and evaluate suitable aggregate colour blends and size distribution (granulometry).
- The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.
- Under certain conditions, under floor heating or high ambient temperatures combined with high point loading, may lead to imprints in the resin.
- Under UV-exposure some discolouration (yellowing) will occur, however this has no influence on the function and performance of the coating.
- If heating is required do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of both CO<sub>2</sub> and H<sub>2</sub>O water vapour, which may adversely affect the finish. For heating use only electric powered warm air blower systems.

#### **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 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.

#### **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.

## 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  $\leq 500$  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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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