

PRODUCT DATA SHEET

Sikafloor®-151

Multipurpose epoxy primer and binder for levelling screeds and mortars

DESCRIPTION

Sikafloor®-151 is a 2-part, low viscosity multipurpose filled epoxy resin for priming and levelling concrete and cementitious substrates.

Total solid according to test method DEUTSCHE BAUCHEMIE

USES

Sikafloor®-151 may only be used by experienced professionals.

- Primer for concrete substrates, cement screeds and epoxy mortars
- Primer for low to medium absorbent substrates
- Primer for Sika® epoxy and polyurethane flooring systems
- Binder for levelling mortars and mortar screeds

CHARACTERISTICS / ADVANTAGES

- Suitable for indoor applications due to low odour
- Multipurpose product - can be used in many different kinds of applications
- Improves the project's ecological footprint
- Low viscosity
- Good penetration
- Good bond strength
- Short waiting times

PRODUCT INFORMATION

Composition	Solvent free epoxy
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Packaging	Container	
	Part A	8.5 kg, 25.5 kg
	Part B	1.5 kg, 4.5 kg
	Part A+B	9 kg, 30 kg

Drum		
Part A		255 kg
Part B		180
Part A+B		4 Drum Part A (255 kg) + 1 Drum Part B (180kg)
Appearance / Colour		
Part A		Brownish-transparent, liquid
Part B		Transparent, 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.		
Density		
Part A	~1,6 kg/l	(EN ISO 2811-1)
Part B	~0,99 kg/l	
A+B	~1,47 kg/l	
Solid content by mass		
~100 %		
Solid content by volume		
~100 %		

TECHNICAL INFORMATION

Shore D Hardness	~80 (7 days / +23 °C / 50 % r.h.)	(EN ISO 868)
Tensile adhesion strength	> 1,5 N/mm ² (failure in concrete)	(EN 1542)

SYSTEM INFORMATION

System	<u>Primer</u>	
	Low / medium porous concrete	1–2 × Sikafloor®-151
	<u>Levelling (roughness depth < 1 mm)</u>	
	Primer	1–2 × Sikafloor®-151
	Levelling	1 × Sikafloor®-151 + Quartz sand (0,1–0,3 mm)
	<u>Levelling (roughness depth 2 mm)</u>	
	Primer	1–2 × Sikafloor®-151
	Levelling	1 × Sikafloor®-151 + Quartz sand (0,1–0,3 mm)
	<u>Intermediate layer (Self-levelling 1,5 - 3,0 mm)</u>	
	Primer	1-2 × Sikafloor®-151
	Levelling layer	1 × Sikafloor®-151 + Quartz sand (0,1–0,3 mm)
	<u>Epoxy mortar (15 - 20 mm) / Repair mortar</u>	
	Primer	1–2 × Sikafloor®-151
	Bonding bridge	1 × Sikafloor®-151
	Screed	1 × Sikafloor®-151 + suitable sand mixture

In practice, the following sand mixture has proven successful (grain size distribution for layer thicknesses of 15 - 20 mm).

25 pbw quartz sand 0,1–0,5 mm

25 pbw quartz sand 0,4–0,7 mm

25 pbw quartz sand 0,7–1,2 mm

25 pbw quartz sand 2–4 mm

Depending on the grain shape and processing temperature, the aggregates must be matched in a preliminary test. Ready-made sand mixtures tend to segregate during transport, therefore only use in bags.

APPLICATION INFORMATION

Mixing ratio	Part A : Part B	85 : 15 (by weight)	
Consumption	Floor System	Product	Consumption
	Priming	1–2 x Sikafloor®-151	1–2 × 0,35–0,55 kg/m ²
	Levelling mortar fine (surface roughness < 1 mm)	1 pbw Sikafloor®-151 + 0,5 pbw quartz sand (0,1–0,3 mm)	1,7 kg/m ² /mm
	Levelling mortar medium (surface roughness up to 2 mm)	1 pbw Sikafloor®-151 + 1 pbw quartz sand (0,1–0,3 mm)	1,9 kg/m ² /mm
	Intermediate layer (self-smoothing 1,5 to 3 mm)	1 pbw Sikafloor®-151 + 1 pbw quartz sand (0,1–0,3 mm) + optional broadcast quartz sand 0,4–0,7 mm	1,9 kg/m ² /mm ~4,0 kg/m ²
	Bonding bridge	1–2 x Sikafloor®-151	1–2 × 0,3–0,5 kg/m ²
	Epoxy screed (15–20 mm layer thickness) / Repair mortar	1 pbw Sikafloor®-151 + 8 pbw quartz sand	2,2 kg/m ² /mm
	<p>The following sand mixtures are indicative mix design quantities that must be confirmed by pre-trials. Grain size distribution for layer thicknesses of 15–20 mm , parts by weight (pbw):</p> <ul style="list-style-type: none"> 25 pbw quartz sand 0,1–0,5 mm 25 pbw quartz sand 0,4–0,7 mm 25 pbw quartz sand 0,7–1,2 mm 25 pbw quartz sand 2–4 mm <p>Note: The largest grain size may not exceed 1/3 of the finished layer thickness. Dependent on the grain shape and application temperatures, the sand and the most suitable mix must be selected and confirmed by pre-trials.</p>		
	Product temperature	Minimum	+10 °C
		Maximum	+30 °C
Ambient air temperature	Minimum	+10 °C	
	Maximum	+30 °C	
Relative air humidity	80 % r.h. 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 surface of the applied product. Low temperatures and high humidity conditions increase the probability of blooming.		
Substrate temperature	Minimum	+10 °C	
	Maximum	+30 °C	
Substrate moisture content	<p>≤ 4 CM% for cementitious substrates 4-6 CM% for cementitious substrates non-porous application of at least 0.5 kg/m². ≤0.3 CM% for anhydrite screeds</p>		
Pot Life	+10 °C	~50 minutes	
	+20 °C	~25 minutes	
	+30 °C	~15 minutes	

Curing time

Before applying non-solvented products on Sikafloor®-151 allow:

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

Before applying solvented products on Sikafloor®-151 allow:

Substrate temperature	Minimum	Maximum
+10 °C	36 hours	6 days
+20 °C	24 hours	4 days
+30 °C	16 hours	2 days

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

Waiting time to overcoating

Before applying non-solvent based products on the product allow:

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

Before applying solvent based products on the product allow:

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

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

BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

FURTHER INFORMATION

Substrate quality / preparation:

For further information, please refer to the system data sheet "Sikafloor flooring: surface assessment, preparation, priming".

Application instructions:

For further information please refer to the system data sheet "Mixing and Application of Floor Coatings".

Maintenance:

For further information, please refer to "the cleaning and maintenance instructions".

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. Further notes and information data sheets on product safety and disposal can be found on the Internet at www.sika.de.

CE-MARKING

See declaration of performance

HAZARD INFORMATION

GISCODE: RE 30 (previously RE 1)

This coding makes it possible to obtain further information on the service pages of the BG Bau (www.bgbau.de/gisbau), as well as assistance in drawing up operating instructions (www.wingis-online.de/wingisonline/).

Skin contact with epoxy resins can lead to allergies! When handling epoxy resins, direct skin contact must be avoided at all costs! For the selection of suitable protective equipment, please refer to our information data sheets "General notes on occupational safety" (reference number 7510) and "General notes on wearing protective gloves" (reference number 7511) at www.sika.de. In this context, we also recommend the service pages of the BG Bau for handling epoxy resins (www.bgbau.de/gisbau/fachthemen/epoxi).

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

- The substrate must be sufficiently load-bearing (compressive strength min. 25 N/mm²) and the adhesive tension must not fall below 1.5 N/mm².
- The surface must be even, fine-grained, solid, dry, free of grease and oil, and free of loose and sanding particles.
- Insufficiently load-bearing layers and soiling must be removed mechanically, e.g. by blasting or milling.
- Defective areas, holes or break-outs must be levelled with Sika products.

MIXING

Before mixing, stir component A mechanically. Carefully mix the components with A + B in the prescribed mixing ratio before application. To prevent splashing or even spilling of the liquid, mix the components with an infinitely variable electric stirrer for a short time at low speed.

Then increase the stirring speed to a maximum of 300 rpm for intensive mixing. After approx. 2 minutes, add the specified proportions of quartz sand or Sikafloor filler. The mixing time is at least 3 minutes and is only finished when a homogeneous mixture is obtained. Transfer the mixed material into a clean container (re-pot) and mix again briefly as described above.

APPLICATION

Check substrate moisture, relative humidity and dew point before application. If the substrate has a residual moisture content higher than 6 %, apply Sikafloor®-81 EpoCem, as a temporary moisture barrier.

Primer:

To achieve an even wetting of the substrate, we recommend applying the material twice. The material can be applied with a brush, roller or squeegee. The preferred application is with the squeegee. Follow up with a roller in a criss-cross pattern.

Levelling filler:

On the primed surface, the levelling filler is spread evenly with a squeegee / spatula / trowel or squeegee.

Bonding bridge:

Application can be done with a brush, roller or squeegee. The preferred application is with the squeegee and additional re-rolling in a cross pattern.

Screed preparation:

Apply Sikafloor®-151 plus 0.5 - 1 wt% Sika® Stellmittel T to the prepared substrate as a primer and bonding agent. The screed mixture is then applied fresh in fresh, spread and compacted and smoothed with a trowel or plate trowel.

CLEANING OF EQUIPMENT

Sika® Thinner C.

Fully cured material can only be removed mechanically.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

DIRECTIVE 2004/42/CE LIMITATION OF EMISSIONS OF VOC

According to the EU-Directive 2004/42, the maximum allowed content of VOC (Product category IIA / j type sb) 500 g/l (Limit 2010) for the ready to use product. The maximum content of Sikafloor®-151 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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