BUILDING TRUST

PRODUCT DATA SHEET

Sikafloor®-151

EPOXY PRIMER, LEVELLING MORTAR AND MORTAR SCREED

DESCRIPTION

Sikafloor®-151 is a 2-part, low viscosity, multipurpose, epoxy resin which can be used as an epoxy primer, levelling mortar and mortar screed

USES

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

- Priming concrete substrates, cement screeds and epoxy mortars
- For low to medium absorbent substrates
- Primer for the Sikafloor®-263 SL N and Sikafloor®-264 N flooring systems
- Binder for levelling mortars and mortar screeds
- Intermediate layer underneath Sikafloor®-263 SL N and Sikafloor®-264 N

CHARACTERISTICS / ADVANTAGES

- Low viscosity
- Good penetration
- Good bond strength
- Easy application
- Short waiting times
- Multi-purpose

SUSTAINABILITY

- Conformity with LEED v4 EQc 2: Low-Emitting Materials

APPROVALS / CERTIFICATES

- CE Marking and Declaration of Performance to EN 1504-2 - Surface protection product for concrete - Coating
- CE Marking and Declaration of Performance to EN 13813 - Resin screed material for internal use in buildings

PRODUCT INFORMATION

Composition	Epoxy	
Packaging	Part A	25,5 kg
	Part B	4,5 kg
	Part A+B	30 kg ready to mix units
	Please contact our customer service, for information on what packaging sizes are sold in Denmark.	
Appearance / Colour	Resin - Part A	Brownish-transparent, liquid
	Hardener - 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 temperatures between +5 °C and +30 °C. Always refer to packaging.

Density	Part A	1,6 kg/l	(DIN EN ISO 2811-1)
	Part B	0,99 kg/l	
	Mixed Resin	1,47 kg/l	
	All density values at +23°C.		
Solid content by weight	~100 %		
Solid content by volume	~100 %		

TECHNICAL INFORMATION

Shore D Hardness	~80 (7 days / +23 °C / 50 % r.h.)	(DIN 53505)
Tensile Adhesion Strength	> 1,5 N/mm² (failure in concrete)	(ISO 4624)

SYSTEMS

Systems

Primer

Low / medium porosity concrete	1–2 × Sikafloor®-151

Levelling mortar fine
(Surface roughness < 1 mm)

Primer	1–2 × Sikafloor®-151
Levelling mortar	1 × Sikafloor®-151 + quartz sand (0,1–0,3 mm)

Levelling mortar medium
(Surface roughness up to 2 mm)

Primer	1–2 × Sikafloor®-151
Levelling mortar	1 × Sikafloor®-151 + quartz sand (0,1–0,3 mm)

Intermediate layer
(Self-smoothing 1,5 to 3 mm)

Primer	1 × Sikafloor®-151
Levelling mortar	1 × Sikafloor®-151 + quartz sand (0,1–0,3 mm)

Epoxy screed / repair mortar
(15–20 mm layer thickness per layer)

Primer	1–2 × Sikafloor®-151
Bonding bridge	1 × Sikafloor®-151
Screed / repair mortar	1 × Sikafloor®-151 + suitable sand mixture

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):
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
Note: The largest grain size must be a maximum 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.

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/m²
Levelling mortar fine (surface roughness < 1 mm)	1 pbw Sikafloor®-151 + 0,5 pbw quartz sand (0,1–0,3 mm)	1,7 kg/m²/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/m²/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/m²/mm ~4,0 kg/m²
Bonding bridge	1–2 × Sikafloor®-151	1–2 × 0,3–0,5 kg/m²
Epoxy screed (15–20 mm layer thickness) / Repair mortar	1 pbw Sikafloor®-151 + 6 pbw quartz sand	2,2 kg/m²/mm

These figures are theoretical and do not allow for any additional material required due to surface porosity, surface profile, variations in level or wastage etc.

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	~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	60 hours	6 days
+20 °C	36 hours	4 days
+30 °C	28 hours	2 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®-151.
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 3,0 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). If required, gradually add the appropriate granulometry of dried quartz sand and if required Extender T. 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+quartz sand = 5,0 minutes.

APPLICATION

Strictly follow application procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions.
Prior to application, confirm substrate moisture content, relative air humidity, dew point, substrate, air and product temperatures. If moisture content > 4 % parts by weight, Sikafloor® EpoCem® may be applied as a Temporary Moisture Barrier (T.M.B.) system.

Primer
Pour mixed Sikafloor®-151 onto the prepared substrate and apply by brush, roller or squeegee then back roller in two directions at right angles to each other. Ensure a continuous, pore free coat covers the substrate. If necessary, apply two priming coats. Confirm primer waiting /overcoating time has been achieved before applying subsequent products. Refer to individual primer Product Data Sheet.

Levelling mortar
Apply the levelling mortar by squeegee/trowel to the required thickness.

Intermediate layer
Pour mixed Sikafloor®-151 onto the prepared substrate and spread evenly using a serrated trowel to the required thickness. Roll immediately in two directions at right angles to each other with a spiked roller to ensure even thickness and if required broadcast with quartz sand. Broadcast between ≥ 15 minutes minimum, ≤ 30 minutes maximum (at +20 °C), lightly at first and then to excess.

Bonding bridge
Pour mixed Sikafloor®-151 onto the prepared substrate and apply by brush, roller or squeegee. For epoxy screed, back roller in two directions at right angles to each other. Ensure a continuous, pore free coat covers the substrate. If necessary, apply two priming coats.

Epoxy screed / repair mortar
Apply the repair or screed mortar onto the “tacky” bonding bridge. For the screed, use levelling battens and screed rails as necessary. After a short waiting time, compact and smoothen the mortar with a trowel. For the screed, a teflon coated power float (~20–90 rpm) is recommended.

CLEANING OF EQUIPMENT

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

FURTHER INFORMATION

- 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

IMPORTANT CONSIDERATIONS

- After application, Sikafloor®-151 must be protected from damp, condensation and direct water contact (rain) for 24 hours.
- 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.
- Discard any material over the pot life recommenda-

tions.
- Do not apply on substrates with rising moisture.
- Sikafloor®-151 mortar screed is not suitable for frequent or permanent contact with water unless sealed.
- Pre-trials must be carried out for mortar mixes to assess suitable aggregate grain size distribution.
- For external applications, apply on a falling temperature. If applied during rising temperatures “pin holing” may occur from rising air. These pinholes can be closed after light grinding by applying a scratch coat of Sikafloor®-151 mixed with ~3 % of Sika® Extender T.

Construction joints require pre-treatment. Treat as follows:

- Static Cracks: prefill and level with Sikadur® or Sikafloor® epoxy resin
- Dynamic cracks: to be assessed and if necessary apply a stripe coat of elastomeric material or design as a movement joint

The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.

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, 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, 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

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.

Sika Danmark A/S
Hirsemarken 5
3520 Farum
Tlf. +45 48 18 85 85
www.sika.dk