BUILDING TRUST

PRODUCT DATA SHEET

Sikafloor®-151

Multipurpose epoxy primer and binder for levelling screeds and mortars

PRODUCT DESCRIPTION

Sikafloor®-151 is a 2-part, low viscosity multipurpose filled epoxy resin for priming and levelling concrete and cementitious substrates. It is well suited for indoor applications due to its low odour

USES

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

The Product can be used as a:
- 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

Please note:
The Product may only be used by experienced professionals.

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

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 v4 EQc 2: Low-Emitting Materials

APPROVALS / STANDARDS

- CE Marking and Declaration of Performance to EN 13813:2002 — Screed material and floor screeds — Screed material
- CE Marking and Declaration of Performance to EN 1504-2:2004 — Products and systems for the repair and protection of concrete structures — Part 2: Surface protection systems for concrete — Coating
- Bond Behavior DIN EN 13578, Sikafloor®-151 + Sikafloor®-264 N, kiwa, Test report No. P 12091-2.1 E
- Fire classification according to EN 13501-1, Test institute University Gent, Belgium, Test report 20-0771-02

PRODUCT INFORMATION

Chemical Base	Solvent free epoxy		
Packaging	Container Part A	25.5 kg container	
	Container Part A	4.5 kg container	
	Container Part A + Part B	30 kg ready to mix unit	
	Drum Part A	255 kg drum	
	Drum Part B	180 kg drum	
	Packaging Drum Part A + Part B	4 Drums Part A (255 kg) + 1 drum Part B (180 kg) = 1200 kg	
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 temperatures between +5 °C and +30 °C. Always refer to packaging.		
Density	Part A	~1.6 kg/l	(EN ISO 2811-1)
	Part B	~0.99 kg/l	
	Mixed Product	~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/mm² (failure in concrete)	(EN 1542)
Thermal Resistance	Short-term, maximum 7 days: +60 °C IMPORTANT No simultaneous mechanical and chemical strain While the product is exposed to temperatures up to +60 °C, do not also subject it to chemical and/or mechanical strain, as it may cause damage to the product.	

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 (0.06–0.3 mm)	1.7 kg/m²/mm
Levelling mortar medium (surface roughness up to 2 mm)	1 pbw Sikafloor®-151 + 1 pbw quartz sand (0.06–0.3 mm)	1.9 kg/m²/mm
Intermediate layer (self-smoothing 1.5 to 3 mm)	1 pbw Sikafloor®-151 + 1 pbw quartz sand (0.06–0.3 mm) + optional broadcast quartz sand 0.3–0.8 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

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 0.06–0.3 mm
25 pbw quartz sand 0.3–0.8 mm
25 pbw quartz sand 0.6–1.2 mm
25 pbw quartz sand 2–4 mm
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.

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

≤ 6 % parts by weight.

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	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.

Waiting Time / 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	~60 hours	~6 days
+20 °C	~36 hours	~4 days
+30 °C	~28 hours	~2 hours

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

VALUE BASE

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 DOCUMENTS

- Sika® Information Manual: Evaluation and preparation of surfaces for flooring systems
- Sika® Information Manual: Mixing and application of flooring systems
- Sikafloor® cleaning concept

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

EQUIPMENT

Unsuitable mixing equipment
Do not use free fall mixers.

Mixing equipment
Electric double paddle mixer (300 to 400 rpm)

SUBSTRATE QUALITY / PRE-TREATMENT

Mechanical substrate preparation
IMPORTANT
Exposing blow holes and voids
When mechanically preparing the surface, make sure to fully expose blow holes and voids.
1. Remove weak cementitious substrates.
2. Prepare cementitious substrates mechanically using abrasive blast cleaning or planing / scarifying equipment to remove cement laitance.
3. Before applying thin layer resins, remove high spots by grinding.
4. Use industrial vacuuming equipment to remove all dust, loose and friable material from the application surface before applying the Product.
5. Use products from the Sikafloor®, Sikadur® and Sikagard® range of materials to level the surface or fill cracks, blow holes and voids.

Contact Sika® Technical Services for additional information on products for levelling and repairing defects.
Substrate condition
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 can be damp but must be free of standing water (no puddles) clean and free of all contaminants such as dirt, oil, grease, coatings, laitance, surface treatments and loose friable material.
Substrate moisture content
The following test methods can be used to determine the substrate moisture content:
- Sika®-Tramex meter
- CM-measurement
- Oven-dry-method

The Product can be applied on substrates with a moisture content of ≤ 6 %. The substrate must be visibly dry with no standing water.
Treatment of joints and cracks
Construction joints and existing static surface cracks in substrate require pre-treating before full layer application. Use Sikadur® or Sikafloor® resins.
IMPORTANT
Incorrect treatment of cracks
The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.

MIXING

Note: To change the viscosity of the Product you can add Sika® Extender T.
Mixing procedure
1. Mix Part A (resin) until the coloured pigment is dispersed and a uniform colour is achieved.
2. Add Part B (hardener) to Part A.
3. Mix Part A + B continuously for ~3 minutes until a uniformly coloured mix is achieved.
4. To ensure thorough mixing, pour materials into another container and mix again to achieve a smooth and uniform mix.
5. 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.

APPLICATION

IMPORTANT

Protect from moisture

After application, protect the Product from damp, condensation and direct water contact for at least 24 hours.

IMPORTANT

Temporary heating

If temporary heating is required, do not use gas, oil, paraffin or other fossil fuel heaters. These produce large quantities of both carbon dioxide and water vapour, which may adversely affect the finish. For heating, use only electric powered warm air blower systems.

Standard primer application

Equipment:

- Fleece roller
- Squeegee

1. Pour the mixed Product onto the substrate. The consumption is specified in Application Information.
2. Apply the Product with one of the tools specified in Equipment.
3. Back roll the surface in two directions at right angles with a fleece roller. A seamless finish can be achieved if a "wet" edge is maintained during application.

Levelling Mortar

Equipment:

- Squeegee

1. Pour the mixed Product onto the substrate. The consumption is specified in Application Information.
2. Apply the Product with one of the tools specified in Equipment.

Intermediate layer

1. Pour the mixed Product onto the substrate. The consumption is specified in Application Information.
2. Apply the Product evenly over the surface with a serrated trowel.
3. Back roll the surface in two directions at right angles with a spike roller.
4. (Optional) If broadcasting is required, wait between 15 and 30 minutes, then broadcast the surface with quartz sand. Broadcast lightly at first, then to excess.
5. **(Optional)** Once the product has hardened sufficiently, remove all loose sand with industrial vacuuming equipment. IMPORTANT: Confirm waiting /overcoating time is achieved before applying subsequent products. (Refer to waiting / overcoating times in Application Information)

Bonding bridge

Equipment:

- Fleece roller
- Squeegee

1. Apply the Product with one of the tools specified in Equipment.
2. Pour the mixed Product onto the substrate. The consumption is specified in Application Information.
3. Back roll the surface in two directions at right angles with a fleece roller. A seamless finish can be achieved if a "wet" edge is maintained during application.
4. (Optional) If required, apply a second priming coat.

Resin screed

IMPORTANT

For applications in layers more than 30 mm thick, always use a welded steel wire mesh (6 mm to 8 mm diameter and square grid centres of approximately 100 mm × 100 mm), placed at the centre of the screed.

1. Pour the mixed Product "wet on wet" onto the still tacky primer. The consumption is specified in Application Information.
2. Spread and compact the Product with a trowel to the required thickness between screed rails / battens, if installed.
3. Level the screed surface with a levelling beam spanning onto the screed rails / battens.
4. Finish the surface to the required surface texture with trowels or walk-behind power floats.

Resin patch repair mortar

1. Pour the mixed Product "wet on wet" onto the still tacky primer.
2. Apply the Product with a trowel to the required thickness.
3. Compact the applied product with a trowel.
4. Smoothen the surface with a trowel.
   IMPORTANT: Confirm waiting /overcoating time is achieved before applying subsequent products. (Refer to waiting / overcoating times in Application Information)

CLEANING OF TOOLS

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

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.

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.

SIKA LIMITED
Watchmead
Welwyn Garden City
Hertfordshire, AL7 1BQ
Tel: 01707 394444
Web: www.sika.co.uk
Twitter: @SikaLimited