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 installation works to be carried out only by Sika Approved Contractors. Please observe information given by Product Data Sheets.

The Product is 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

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

- Environmental Product Declaration (EPD) in accordance with EN 15804. EPD independently verified by Institut für Bauen und Umwelt e.V. (IBU)
- Contributes towards satisfying Indoor Environmental Quality (EQ) Credit: Low-Emitting Materials under LEED® v4
- Contributes towards satisfying Materials and Resources (MR) Credit: Building product disclosure and optimization — Environmental Product Declarations under LEED® v4
- Contributes towards satisfying Materials and Resources (MR) Credit: Building Product Disclosure and Optimization — Material Ingredients under LEED® v4

APPROVALS / STANDARDS

- Fire Classification Report EN 13501-1, GHENT, No. CR 20-0771-02
- CE marking and declaration of performance based on EN 13813:2002 Screed material and floor screeds — Screed material — Properties and requirements — Synthetic resin screed material
- CE marking and declaration of performance based on EN 1504-2:2004 Products and systems for the protection and repair of concrete structures — Surface protection systems for concrete — Coating
- Bond behavior EN 13578, kiwa, Report No. P 12091-2.1 E

PRODUCT INFORMATION

Chemical Base

Solvent free epoxy

Packaging

Container Part A	25.5 kg
Container Part B	4.5 kg
Container Part A + Part B	4 Drums Part A (255kg) + 1 drum Part B (180 kg) = 1200 kg
Drum Part A	255 kg drum
Drum Part B	180 kg drum
Packaging Drum Part A + Part B	4 Drums Part A (255kg) + 1 drum Part B (180 kg) = 1200 kg

Refer to the current price list for available packaging variations.

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.
Refer to the current Safety Data Sheet for information on safe handling and storage.

Appearance / Colour

Part A	Brownish-transparent, liquid
Part B	transparent, liquid

Density

Part A	~1.60 kg/l	(EN ISO 2811-1)
Part B	~0.99 kg/l	
Mixed Product	~1.47 kg/l	

Solid content by volume

~100 %

TECHNICAL INFORMATION

Shore D Hardness

~80 (EN ISO 868)

Service Temperature

IMPORTANT
Simultaneous mechanical and chemical strain
While the Product is exposed to temperatures up to +60 °C, simultaneous mechanical or chemical strain may cause damage to the Product.
1. Do not expose the Product to chemical or mechanical strain at elevated temperatures

Short-term, maximum 7 days	+60 °C

APPLICATION INFORMATION

Mixing Ratio

Part A : Part B (by weight)	85 : 15 (by weight)

Consumption

Floor system	Product	Consumption
Priming	1–2 × Sikafloor®-151	1–2 × 0.35–0.55 kg/m²
Levelling mortar/ Scratch coat	1 pbw Sikafloor®-151 + 0.5 pbw quartz sand (0.1–0.3 mm)	1.7 kg/m²/mm
Bonding bridge	1–2 × Sikafloor®-151	1–2 × 0,3–0,5 kg/m²
Resin screed (15 mm to 20 mm layer thickness) / Repair mortar	1 pbw Sikafloor®-151 + 8 pbw quartz sand (by weight)	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 0,1–0,5 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 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.

Note: Consumption data is theoretical and does not allow for any additional material due to surface porosity, surface profile, variations in level, wastage or any other variations. Apply product to a test area to calculate the exact consumption for the specific substrate conditions and proposed application equipment.

Product Temperature

Minimum	+10 °C
Maximum	+30 °C

Ambient Air Temperature

Minimum	+10 °C
Maximum	+30 °C

Relative Air Humidity

Maximum	80 % r.h.

Dew Point

Beware of condensation. The substrate and uncured applied product 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

IMPORTANT

Temporary moisture barrier

If the substrate moisture content measured with the CM-method is > 4% by weight, apply a temporary moisture barrier consisting of Sikafloor® EpoCem®.

1. Contact Sika technical services for more information.

Substrate	Test method	Moisture content
Cementitious substrates	Calcium carbide method (CM-method)	≤ 4 %

No rising moisture (ASTM D4263, polyethylene sheet)

Pot Life

+10 °C	~ 50 minutes
+20 °C	~ 25 minutes
+30 °C	~ 15 minutes

Waiting Time / Overcoating

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

Substrate temperature	Minimum	Maximum
+10 °C	~17 hours	~4 days
+20 °C	~9 hours	~48 hours
+30 °C	~7 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	~48 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 Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

FURTHER DOCUMENTS

Refer to the following method statements:
- Sika Method Statement — Sikafloor® and Sikagard® evaluation and preparation of surfaces
- Sika Method Statement — Sikafloor® mixing and application

ECOLOGY, HEALTH AND SAFETY

Local safety regulations must be observed and it advisable to wear PPI when working with this product with particular attention paid to cutting and handling. Transportation Class: The product is not classified as hazardous good for transport. Disposal: The material is recyclable. Disposal must be according to local regulations. Please contact your local Sika sales organisation for more information.

APPLICATION INSTRUCTIONS

EQUIPMENT

MIXING EQUIPMENT
- Electric double paddle mixer (>700 W, 300 to 400 rpm)

APPLICATION EQUIPMENT
- Squeegee
- Fleece roller

SUBSTRATE QUALITY

Cementitious substrates 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.

SUBSTRATE PREPARATION

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 PREPARATION OF NON-CEMENTITIOUS SUBSTRATES
For information on substrate preparation of non-cementitious substrates, contact Sika technical services.
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.

MIXING

Note: To increase the viscosity of the Product you can add Sika® Extender T.
PRIMER MIXING PROCEDURE
1. Mix Part A (resin) for ~30 seconds.
2. Add Part B (hardener) to Part A.
3. IMPORTANT Do not mix excessively. Mix Part A + B continuously for ~3 minutes until a uniform 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.

LEVELLING MORTAR AND RESIN SCREED MIXING PROCEDURE
1. Mix Part A (resin) for ~30 seconds.
2. Add Part B (hardener) to Part A.
3. While mixing Parts A + B, gradually add the required filler or aggregates.
4. IMPORTANT Do not mix excessivley. Mix for a further 2 minutes until a uniform mix is achieved.
5. To ensure thorough mixing, pour materials into another container and mix again to achieve a smooth and uniform mix.
6. 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.
1. For heating, use only electric powered warm air blower systems.

IMPORTANT
Pin holes
If the Product is applied on porous substrates during rising temperatures, pin holes may form from rising air.
1. Apply the Product during falling temperatures.

IMPORTANT

Closing Pin holes

If pin holes are present after the Product has cured blistering may occur in the subsequent layer. Close any pin holes using the following steps.

1. Lightly grind the cured surface.
2. Apply a scratch coat consisting of the Product mixed with ~3 % of Sika® Extender T.

STANDARD PRIMER APPLICATION

1. Pour the mixed Product onto the substrate. Note The consumption is specified in Application Information.
2. Apply the Product evenly over the surface with a short pile roller or a squeegee.
3. Back roll the surface in two directions at right angles with a fleece roller. Note Maintain a "wet edge" during application to achieve a seamless finish.
4. 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. IMPORTANT Confirm waiting or overcoating time is achieved before applying subsequent products. (Refer to the "waiting time to overcoating" section of Application Information) Once the product has hardened sufficiently, remove all loose sand with industrial vacuuming equipment.

LEVELLING MORTAR / SCRATCH COAT

Equipment:

- Squeegee
- Trowel

1. Pour the mixed Product onto the substrate. Note The consumption is specified in Application Information.
2. Apply the Product evenly over the surface with a trowel or a squeegee.

BONDING BRIDGE

1. Pour the mixed Product onto the substrate. Note The consumption is specified in Application Information.
2. Apply the Product evenly over the surface with a brush, fleece roller or a squeegee.
3. Back roll the surface in two directions at right angles with a fleece roller. Note Maintain a "wet edge" during application to achieve a seamless finish.
4. **(Optional)** If required, apply a second priming coat.

RESIN SCREED

IMPORTANT

Not suitable for contact with water

The Product is not suitable for contact with water unless sealed with seal coat.

1. Pour the mixed Product "wet on wet" onto the still tacky primer. Note 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. IMPORTANT Confirm waiting or overcoating time is achieved before applying subsequent products. (Refer to the "waiting time to overcoating" section of Application Information). Smoothen the surface with a trowel.

CLEANING OF TOOLS

Clean all tools and application equipment withSika® Thinner C immediately after use. Hardened 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.

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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