

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. It is well suited for indoor applications due to its low odour. Suitable to use in hot and tropical climatic conditions.

USES

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

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

FEATURES

- 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

SUSTAINABILITY

- 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

CERTIFICATES AND TEST REPORTS

- 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

Composition	Solvent free epoxy		
Packaging	Part A	21.25 kg unit	
	Part B	3.75 kg unit	
	Part A + Part B	25 kg ready to mix unit	
	Part A	23.80 kg unit	
	Part B	4.20 kg unit	
	Part A + Part B	28 kg ready to mix unit	
	Refer to the Country 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 and 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)
Tensile adhesion strength	≥ 1.5 N/mm ² (or failure in concrete)	(EN 1542)
Service temperature	<p>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</p>	

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/m ²
	Levelling mortar - fine (surface roughness < 1 mm)	1 pbw Sikafloor®-151 + 0.5 pbw quartz sand (Sikadur®-504)	~1.7 kg/m ² /mm
	Levelling mortar - medium (surface roughness < 2 mm)	1 pbw Sikafloor®-151 + 1 pbw quartz sand (Sikadur®-504)	~1.9 kg/m ² /mm
	Resin screed (15 mm to 20 mm layer thickness) / Repair mortar	1 pbw Sikafloor®-151 + 8 pbw quartz sand (Sikadur®-506)	~2.1 kg/m ² /mm

Note: pbw = parts by weight

Consumption Note: The sand mixtures are indicative mix design quantities that must be confirmed by pre-trials.

Consumption 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.

Consumption Note: These consumption figures are theoretical and do 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.

Material 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	<p>IMPORTANT</p> <p>Temporary moisture barrier</p> <p>If the substrate moisture content measured with the CM-method is > 4% by weight, apply a temporary moisture barrier consisting of Sikafloor® Epo-Cem®.</p> <p>1. Contact Sika technical services for more information.</p> <table border="1"> <thead> <tr> <th>Substrate</th> <th>Test method</th> <th>Moisture content</th> </tr> </thead> <tbody> <tr> <td>Cementitious substrates</td> <td>Calcium carbide method (CM-method)</td> <td>≤ 4 %</td> </tr> </tbody> </table> <p>No rising moisture (ASTM D4263, polyethylene sheet)</p>		Substrate	Test method	Moisture content	Cementitious substrates	Calcium carbide method (CM-method)	≤ 4 %
Substrate	Test method	Moisture content						
Cementitious substrates	Calcium carbide method (CM-method)	≤ 4 %						
Pot Life	+10°C	~ 50 minutes						
	+20°C	~ 25 minutes						
	+30°C	~ 15 minutes						
Waiting time to 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.							

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

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

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

EQUIPMENT

MIXING EQUIPMENT

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

APPLICATION EQUIPMENT

- Squeegee
- Fleece roller
- Etc.

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 excessively. 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.

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 EQUIPMENT

Clean all tools and application equipment with Sika® 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 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.

Sika Gulf B.S.C. (c)

Tel: +973 177 38188

Email: info@bh.sika.com

Sika Kuwait Cons. Mat. & Paints Co WLL

Tel: +965 22 282 296

Email: sika.kuwait@kw.sika.com

Web: gcc.sika.com

Sika UAE LLC

Sika MB Construction Chemicals LLC

Sika International Chemicals LLC

Tel: +971 4 439 8200

Email: info@ae.sika.com

Web: gcc.sika.com

Sika Saudi Arabia Limited

Riyadh / Jeddah / Dammam / Rabigh

Tel: +966 11 217 6532

Email: info@sa.sika.com

Web: gcc.sika.com

Sika LLC - Oman

Master Builders Solutions LLC

Tel: +968 22 826 500

(part of Sika)

Tel: +968 22 826 500

Email: info@om.sika.com

Web: gcc.sika.com



ISO 9001, 14001, 45001 – SGS
- Sika UAE LLC
- Sika International Chemicals LLC
- Sika Gulf B.S.C. (c)
ISO 9001, 14001 – SGS
- Sika Saudi Arabia Limited
ISO 9001, 14001 – TÜV
- Sika MB Construction Chemicals LLC
- Master Builders Solutions LLC

All products are supplied under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and ISO 45001.



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