

PRODUCT DATA SHEET

Sikafloor®-324

Tough-elastic, low-VOC, self-smoothing polyurethane flooring resin

DESCRIPTION

Sikafloor®-324 is a two part solvent free, pigmented, self smoothing polyurethane resin, with tough-elastic properties.

Sikafloor®-324 makes use of Sika's unique i-Cure technology to improve surface aesthetics and reduce sensitivity for ambient humidity during application.

USES

Sikafloor®-324 may only be used by experienced professionals.

The Product is used as a:

- Self smoothing wearing floor coating on concrete and cementitious substrates
- Slip resistant wearing coating on concrete and cementitious screeds

Please note:

- The Product may only be used for interior applications.

CHARACTERISTICS / ADVANTAGES

- Application on asphalt substrates possible (mastic asphalt)
- i-Cure technology improves surface aesthetics and reduces sensitivity for ambient humidity during application
- Flexible and tough elastic
- Good crack-bridging ability
- Good resistance to specific chemicals

- Good mechanical resistance
- Low VOC emissions
- Easy to apply
- Low maintenance

ENVIRONMENTAL INFORMATION

- 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

APPROVALS / STANDARDS

- 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

PRODUCT INFORMATION

Chemical Base	Solvent-free polyurethane	
Packaging	Container Part A	20.25 kg
	Container Part B	4.75 kg
	Container Part A + Part B	25.0 kg
Refer to the current price list for available packaging variations.		
Appearance / Colour	Part A	coloured
	Part B	brownish
	Cured colour	Available in various colours
Shelf Life	12 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.	
Density	Part A	1.4 kg/l (EN ISO 2811-1)
	Part B	1.2 kg/l
	Mixed Product	1.6 kg/l (filled 1 : 0.5 with quartz sand 0.1–0.3 mm)
Solid Content by Weight	100 %	
Solid Content by Volume	100 %	

TECHNICAL INFORMATION

Shore A Hardness	94	(DIN 53505:2000)
Shore D Hardness	Cured 7 days at +23 °C ~ 60	(EN ISO 868)
Abrasion Resistance	Dry=70 Wet=60	(Pendulum test EN 13036-4:2011)
Tensile Strength	12.3MPa	(DIN 53504:2017)
Elongation at Break	Filled 90 %	(EN ISO 527-3)
Tensile Adhesion Strength	> 1.5 N/mm ² (failure in concrete)	(EN 1542)
Tear Strength	58 KN/M	(DIN ISO 34-1 : 2016)

APPLICATION INFORMATION

Mixing Ratio	Part A : Part B (by weight)	81 : 19
Consumption	Filled	1.8 kg/m ² per mm filled with 50 % quartz sand 0.1-0.3mm
Product Temperature	Maximum	+30 °C
	Minimum	+10 °C
Ambient Air Temperature	Maximum	+30 °C
	Minimum	+10 °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 on the surface of the applied product.

Substrate Temperature	Maximum	+30 °C	
	Minimum	+10 °C	
Pot Life	+10 °C	40 minutes	
	+20 °C	30 minutes	
	+30 °C	20 minutes	
Waiting Time / Overcoating	Before overcoating the Product, allow:		
	Temperature	Minimum	Maximum
	+10 °C	30 hours	72 hours
	+20 °C	24 hours	48 hours
	+30 °C	16 hours	36 hours

If the maximum waiting time is exceeded, the surface must be prepared by grinding to obtain a mechanical key between the layers.
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 Product 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 — Evaluation and preparation of surfaces for flooring systems
- Sika Method Statement — Sikafloor® mixing and application

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 Material Safety Data Sheet (MSDS) containing 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

- Pin leveller
- Trowels, including serrated
- Spiked roller

SUBSTRATE QUALITY

IMPORTANT

Incorrect treatment of cracks

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

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.

SUBSTRATE CONDITION

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 contaminants such as dirt, oil, grease, coatings, laitance, surface treatments and loose friable material.

Maximum slope gradient

Note: Do not apply on substrates with a slope > 1 % gradient.

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.

MIXING

1. Mix part A until a uniform colour and mix has been achieved.

2. Add Part B (hardener) to Part A.
3. **IMPORTANT** Do not mix excessively. Mix Part A + B continuously for ~2 minutes until a uniformly coloured mix is achieved.
4. Add the quartz sand and mix for a further 2 minutes until a uniform mix has been 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.
7. Leave the Product to stand for 3 minutes before application.

APPLICATION

IMPORTANT

Strictly follow installation procedures

Strictly follow installation procedures as defined in Method Statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

IMPORTANT

Protect from moisture

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

IMPORTANT

Uncured material reacts with water

Uncured material reacts with water of any kind, which leads to foaming.

1. During the application, wear head and wrist bands to avoid sweat falling onto the uncured material.

IMPORTANT

No application on rising moisture

Do not apply on substrates with rising moisture.

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.

IMPORTANT

Indentations

Under certain conditions, underfloor heating or high ambient temperatures combined with high point loading may lead to indentations in the resin.

SELF-SMOOTHING WEARING LAYER

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 serrated trowel.

3. To achieve a smooth finish, smooth the surface with the flat side of a trowel.
4. Back roll the surface in two directions at right angles with a steel spike roller.

SLIP-RESISTANT BROADCAST LAYER

1. Pour the mixed Product onto the prepared substrate.
2. Apply the Product evenly over the surface with a trowel.
3. Back-roll the surface in two directions at right angles with a spike roller.
4. Allow the product to cure for 15 minutes.
Note: Times are temperature dependant. Times given are for +20 °C.
5. Broadcast the surface with quartz sand or silicon carbide, lightly at first, then to excess.
Note: The aggregate is dependant on the system build-up. Refer to the relevant System Data Sheet.
6. Allow the surface to become tack-free.
7. Remove all loose sand with industrial vacuuming equipment.

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.

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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Product Data Sheet

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