

Sikafloor®-325

2-part PUR resin self smoothing screed, broadcast finish and seal coat

Product Description

Sikafloor®-325 is a two part solvent free coloured self-smoothing PUR resin with tough-elastic properties.

Uses

- Smooth wearing course with crack-bridging properties for industrial floors in production and storage facilities, work shops etc.
- Broadcast wearing course with crack-bridging properties for wet working areas (food and beverage industry etc.), car park decks and loading ramps etc.
- Seal coat for broadcast systems
- Can be subjected to normal to medium heavy mechanical and chemical stress

Characteristics / Advantages

- Flexible and tough-elastic
- Crack-bridging
- Good chemical and mechanical resistance
- Slip resistant surface possible
- Liquid proof
- Easy to apply
- Easy to clean
- Economical
- Solvent-free

Test

Approval / Standards

Decontaminability of surfaces according DIN 25 415-1: Report No. 4098/1
Forschungszentrum Jülich, Germany

Safe for contact with foodstuff: Report No. 10311 U97 ISEGA
Aschaffenburg, Germany

Fire classification in the radiant panel apparatus and smoke rating:
Report No. 130090 EMPA, Switzerland

Abrasion tests under Böhme: Report No. A-20691-1 LPM AG, Switzerland

Combustibility of a parking garage coating: Report No. MA 39-VFA 19991007.01
VFA, Wien, Austria

Approval as "Water protection system" Z-59.12-242 DIBt, Germany:
Report No. P2693-2 Polymer Institut, Germany



Product Data

Form

Appearance / Colours	Resin - part A: coloured, liquid Hardener - part B: brownish, liquid Extended Colour Range RAL 1001, 1002, 3009, 6002, 7003, 7011, 7016, 7023, 7030, 7032, 7037, 7038, 7040, 7042 Other colours on request. Under direct sun radiation there will be discolouration and colour deviation; this has no influence to the function and performance of the coating. Application steps and the use of different batch numbers during one project might lead to a slight colour variation. For areas with aesthetical requirements, the use of Sikafloor®-357 N as seal coat is recommended.
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Packaging	Part A: 18.3 kg containers Part B: 6.7 kg containers Part A+B: 25 kg ready to mix units
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Storage

Storage Conditions / Shelf-Life	12 months from date of production if stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between +5°C and +30°C.
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Technical Data

Chemical Base	Polyurethane (PUR)
Density	Mixed Resin (unfilled): 1.3 kg/l Mixed Resin (filled 1:0.7) 1.6kg/l All Density values at +23°C
Solid Content	~ 100% (by volume) / ~ 100% (by weight)

Mechanical / Physical Properties

Compressive Strength	Resin: ~ 70 N/mm ² (after 28 days at +23°C)	(EN 196-1)
Flexural Strength	Resin: ~ 40 N/mm ² (after 28 days at +23°C)	(EN 196-1)
Tensile Strength	Resin: ~ 20 N/mm ² (after 28 days, at +23°C) Resin filled (1 : 0.7): ~ 20 N/mm ² (after 28 days, at +23°C)	(DIN 53504)
Bond Strength	> 1.5 N/mm ² (failure in concrete)	(EN 4624)
Tear Strength	Resin: ~ 49 N/mm ² (after 28 days, at +23°C) Resin filled (1 : 0.7): ~ 33 N/mm ² (after 28days, at +23°C)	(DIN 53504)
Shore D Hardness	Resin: 73 (28 days / +23°C / 50% r.h)	(DIN 53505)
Elongation at Break	Resin: ~ 40% (14 days / +23°C / 50% r.h) Resin filled (1 : 0.7): ~ 19% (14 days / +23°C / 50% r.h)	(DIN 53504)
Abrasion Resistance	Resin: 55 mg (CS 10/1000/1000)	(ASTM D 4060)
Crack Bridging Capacity	0.6 mm (static loading, 28 days / +23°C)	

Resistance

Chemical Resistance Resistant to many chemicals. Please ask for a detailed chemical resistance table.

Thermal Resistance

Exposure*	Dry heat
Permanent	+50°C
Short-term max. 7d	+80°C
Short-term max. 8h	+100°C

*No simultaneous chemical and mechanical exposure.

Short-term moist/wet heat* up to +80°C where exposure is only occasional (steam cleaning etc.)

System Information

System Structure

Self-smoothing system 1.5 - 2.0 mm:

Primer: 1 x Sikafloor®-156

Coating: 1 x Sikafloor®-325 + quartz sand (F 36 : 0.08 - 0.25 mm)

Broadcast single layer system:

Primer: 1 x Sikafloor 156 or 161

Base coat: 1 x Sikafloor 325

Broadcasting: quartz sand broadcast to excess

Sealer Coat: 1 x Sikafloor 325 or 359N (External use)

For external application, a UV-resistant Sealer Coat (like Sikafloor 359N) is recommended

Broadcast system approx. 4 mm (2 layers system with improved crack bridging properties):

Primer: 1 x Sikafloor®-156

Membrane: 1 x Sikafloor®-325 + quartz sand (F 36 : 0.08 - 0.25 mm)

Base coat: 1 x Sikafloor®-325

Broadcasting: quartz sand (0.4 - 0.7 mm) broadcast to excess

Seal coat: 1 x Sikafloor®-325

For application on inclined surfaces:

Same systems as described above with the addition of Extender T.

Application Details

Consumption / Dosage

Coating System	Product	Consumption
Primer	Sikafloor®-156 or 161	0.2 - 0.5 kg/m ²
Levelling (optional)	Sikafloor®-156 or 161 levelling mortar	Refer to PDS of Sikafloor®-156 or 161
Self-smoothing system 1.5 - 2.0 mm	1 pbw Sikafloor®-325 0.7 pbw quartz sand (F 36 (0.08 - 0.25 mm))	1.60 kg/m ² mixture (0.94 kg/m ² binder + 0.66 kg/m ² quartz sand) per mm layer thickness
Broadcast single layer system	Sikafloor 325 Broadcast quartz sand Sealer Coat Sikafloor 325 or 359	Refer to the Method Statement
Broadcast system approx. 4 mm (2- layers system with improved crack bridging properties)	1 pbw Sikafloor®-325 0.7 pbw quartz sand (F 36 (0.08 - 0.25 mm)) + Sikafloor®-325 + broadcast quartz sand 0.4 - 0.7 mm + Seal coat Sikafloor®-325	1.47 kg/m ² 1.03 kg/m ² 1.20 kg/m ² ~ 4.0 kg/m ² ~ 0.7 kg/m ²
For application on inclined surfaces	Inclination (%) 0 - 2.5 2.5 - 5.0 5.0 - 10.0 10 - 15 15 - 20	Extender T (wt.-%, related to resin at +20°C) - 1 2 2.5 3

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

Substrate Quality

Concrete substrates must be sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum pull off strength of 1.5 N/mm².

The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc.

If in doubt apply a test area first.

Substrate Preparation

Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface.

Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed.

Repairs to the substrate, filling of blowholes/voids and surface levelling must be carried out using appropriate products from the Sikafloor®, SikaDur® and SikaGard® range of materials.

The concrete or screed substrate has to be primed or levelled in order to achieve an even surface.

High spots must be removed by e.g. grinding.

All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.

Application Conditions / Limitations

Substrate Temperature	+10°C min. / +25°C max.
Ambient Temperature	+10°C min. / +25°C max.
Substrate Moisture Content	4% pbw moisture content. Please refer to the PDS of SR-161 or SR-156 < 6% pbw moisture content. Test method: Sika-Tramex meter when priming with SR-161. No rising moisture according to ASTM (Polyethylene-sheet)
Relative Air Humidity	70% r.h. max.
Dew Point	Beware of condensation! The substrate and uncured floor must be at least 3°C above the dew point to reduce the risk of condensation or blooming on the floor finish.

Application Instructions

Mixing	Part A : part B = 73 : 27 (by weight)
Mixing Time	Prior to mixing, stir part A mechanically. When all of part B has been added to part A mix continuously for 2 minutes until a uniform mix has been achieved. When parts A and B have been mixed, add the quartz sand 0.08 - 0.25 and mix for a further 2 minutes until a uniform mix has been achieved. To ensure thorough mixing pour materials into another container and mix again to achieve a consistent mix. Over mixing must be avoided to minimise air entrainment.
Mixing Tools	Sikafloor®-325 must be thoroughly mixed using a low speed electric stirrer (300 - 400 rpm) or other suitable equipment.
Application Method / Tools	Prior to application, confirm substrate moisture content, r.h. and dew point. If > 4% pbw moisture content, Sikafloor® EpoCem® may be applied as a T.M.B. (temporary moisture barrier) system. <i>Levelling:</i> Rough surfaces need to be levelled first. Therefore use e.g. Sikafloor®-156 levelling mortar (see PDS). <i>Self smoothing system:</i> Sikafloor®-325 is poured, spread evenly by means of a serrated trowel. Roll immediately in two directions with spiked roller to ensure even thickness and to remove entrapped air. <i>Broadcast system:</i> Sikafloor®-325 is poured, spread evenly by means of a serrated trowel. Then, level and remove entrapped air with a spiked roller and after about 10 minutes (at +20°C) but before 20 minutes (at +20°C), broadcast with quartz sand, at first lightly and then to excess. <i>Seal coat:</i> Sealer coats can be applied by squeegee and then back-rolled (crosswise) with a short-piled roller. A seamless finish can be achieved if a “wet” edge is maintained during application.
Cleaning of Tools	Clean all tools and application equipment with Thinner C immediately after use. Hardened and/or cured material can only be removed mechanically.

Potlife

Temperature	Time
+10°C	~ 40 minutes
+20°C	~ 25 minutes
+30°C	~ 10 minutes

**Waiting Time /
Overcoating**

Before applying Sikafloor®-325 on Sikafloor®-156 allow:

Substrate temperature	Minimum	Maximum
+10°C	24 hours	3 days
+20°C	12 hours	2 days
+30°C	6 hours	1 day

Before applying Sikafloor®-325 on Sikafloor®-325 allow:

Substrate temperature	Minimum	Maximum
+10°C	30 hours	4 days
+20°C	24 hours	2 days
+30°C	16 hours	1 day

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

**Notes on Application /
Limitations**

Do not apply Sikafloor®-325 on substrates with rising moisture.

Freshly applied Sikafloor®-325 must be protected from damp, condensation and water for at least 24 hours.

Avoid puddles on surface with the primer.

Uncured material reacts in contact with water (foaming). During application care must be taken that no 'sweat' drops into fresh Sikafloor®-325 (wear head and wrist bands).

Mixed material must be applied immediately as colourshade can vary when reaching end of potlife.

Tools

Recommended Supplier of Tools:

PPW-Polyplan-Werkzeuge GmbH, Phone: +49 40/5597260, www.polyplan.com.

Serrated trowel for smooth wearing layer:

e.g. Large-Surface Scraper No. 565, Toothed blades No. 25

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

In applications with sun light exposure use Sikafloor®-357 N as seal coat.

For exact colour matching, ensure Sikafloor®-325 Comp. A and B is applied from the same control batch numbers.

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

If heating is required do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of both CO₂ and H₂O water vapour, which may adversely affect the finish. For heating use only electric powered warm air blower systems.

Curing Details**Applied Product ready
for use**

Temperature	Foot traffic	Light traffic	Full cure
+10°C	30 hours	5 days	10 days
+20°C	24 hours	3 days	7 days
+30°C	16 hours	2 days	5 days

Note: Times are approximate and will be affected by changing ambient conditions

**Cleaning /
Maintenance****Methods**

To maintain the appearance of the floor after application, Sikafloor®-325 must have all spillages removed immediately and be regularly cleaned using rotary brush, mechanical scrubbers, scrubber dryer, high pressure washer, wash and vacuum techniques etc., using suitable detergents and waxes.

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.

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.

Health and Safety Information 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 containing physical, ecological, toxicological and other safety-related data.

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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