Construction

Sikafloor®-350 Elastic

2-Part PUR Highly Elastic, Crack-Bridging Coating

Product Description

Sikafloor®-350 Elastic is a two-part, solvent free, highly elastic polyurethane resin. Suitable for use in hot and tropical climates.

Uses

- For highly elastic, crack bridging, trafficable, slip resistant wearing layers
- For car park decks, garage floors and bridges etc.

Characteristics / Advantages

- Very good crack-bridging ability even at low temperatures (down to -20°C)
- Mechanically resistant if broadcast
- Watertight
- Economical in use
- Solvent free

Test

Approval / Standards

Conforms to the German Standard DafStb Rili-SIB 2001 OS 11a, Report-No. P 3165, and OS 11b, Report-No. 3164, Polymer Institut, Germany, Jan. 2004.
Conforms to the requirements of DIN 4101-1/14 for Class B1 (combustibility classification for floorings), Report-No. 16-9005528000a, FMPA Stuttgart, Germany, May 2004.

Product Data

Form

Appearance / Colours

Resin - part A:	transparent, liquid
Hardener - part B:	light brown, liquid

Packaging

Part A:	9 kg
Part B:	18 kg
Part A+B:	27 kg ready to mix units

Storage

Storage Conditions / Shelf-Life

12 months from date of production if stored properly in undamaged original packaging in dry and cool conditions at temperatures between +5°C and +30°C.

Technical Data

Chemical Base

Polyurethane

Density

Part A:	~ 1.60 kg/lt
Part B:	~ 1.03 kg/lt
Part A+B:	~ 1.16 kg/lt

Solid Content	~ 100% (by volume) / ~ 100% (by weight)

Mechanical / Physical Properties

Tensile Strength	~ 3.5 N/mm²	(DIN 53504)
Shore A Hardness	70	(DIN 53505)
Elongation at Break	~ 270%	(DIN 53504)
Crack-Bridging Capacity	~ 0.3 mm at -20°C (static and dynamic)	

Resistance

Chemical Resistance

Resistant against many chemicals. Please ask for a detailed chemical resistance table.

Thermal Resistance

Exposure*	Dry heat
Permanent	+50°C
Short-term max. 7 days	+80°C
Short-term max. 12 hrs	+100°C

*No simultaneous chemical and mechanical exposure.

System Information

System Structure

Car park deck coating systems (according to DAfStb Rili-SIB 2001):
Classification OS 11a:
Primer: Sikafloor®-156 lightly broadcast with quartz sand 0.4 - 0.7 mm
Base coat: **Sikafloor®-350 Elastic**
Wearing course: Sikafloor®-355 N (filled with 20% quartz sand 0.1 - 0.3 mm)
Broadcast to excess with quartz sand 0.7 - 1.2 mm
Seal coat: Sikafloor®-354 or Sikafloor®-359 (with 1% - 5% Thinner C)
Classification similar to OS 11b:
Primer: Sikafloor®-156 lightly broadcast with quartz sand 0.4 - 0.7 mm
Wearing course: **Sikafloor®-350 Elastic** (filled with 20% quartz sand 0.1 - 0.3 mm)
Broadcast to excess with quartz sand 0.7 - 1.2 mm
Seal coat: Sikafloor®-354

For application on inclined / sloping surfaces:
Use the same systems as described with the addition of Sika® Extender T as stated below.

Application Details

Consumption / Dosage

Car park deck system OS 11a

Coating System	Product	Consumption
Primer (lightly blinded)	Sikafloor®-156 Quartz sand 0.4 - 0.7 mm	0.3 - 0.5 kg/m² ~ 0.8 kg/m²
Base coat	**Sikafloor®-350 Elastic**	~ 2.2 kg/m²
Broadcast wearing course	Sikafloor®-355 N filled + Quartz sand 0.7 - 1.2 mm	~ 1.86 kg/m² (1.55 kg/m² binder + 0.31 kg/m² filler) 6 - 8 kg/m²
Seal coat	Sikafloor®-354* or -359*	0.7 - 0.9 kg/m²

Car park deck system similar to OS 11b

Coating System	Product	Consumption
Primer (lightly blinded)	Sikafloor®-156 Quartz sand 0.4 - 0.7 mm	0.3 - 0.5 kg/m² ~ 0.8 kg/m²
Broadcast wearing course	**Sikafloor®-350 Elastic** filled + Quartz sand 0.7 - 1.2 mm	~ 2.4 kg/m² (2.0 kg/m² binder + 0.4 kg/m² filler) 6 - 8 kg/m²
Seal coat	Sikafloor®-354*	0.7 - 0.9 kg/m²

*Sikafloor®-354 / -359 can be diluted with Thinner C up to 5 wt.-%.

For application on sloping surfaces

Slope (%)	Extender T (wt. -%, related to **Sikafloor®-350 Elastic** at +20°C
0 - 2.5	-
2.5 - 5.0	1
5.0 - 10.0	2
10 - 15	2.5
15 - 20	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 a profiled open textured surface.
Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed.
Repairs to substrate, filling of blowholes/voids and surface levelling can 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 up 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. / +30°C max.

Ambient Temperature

+10°C min. / +30°C max.

Substrate Humidity

≤ 4% pbw moisture content.
Test method: Sika-Tramex meter or CM - measurement.
No rising moisture according to ASTM (Polyethylene-sheet).

Relative Air Humidity

80% 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 = 1 : 2 (by weight)

Mixing Time

Prior to mixing stir part A mechanically. When all of part B has been added to part A continuously mix for 2 minutes until a uniform mix has been achieved.
For the addition of quartz sand:
When parts A and B have been mixed, the quartz sand 0.1 - 0.3 mm must be mixed with part A and B 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 reduce air entrainment.

Mixing Tools

Sikafloor®-350 Elastic must be mechanically mixed using an electrical power 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.
Broadcast wearing course:
Sikafloor®-350 Elastic is poured and spread evenly by means of a serrated / notched trowel. Then, level and remove entrained air with a spiked roller. After about 10 minutes (at +20°C) but before 30 minutes (at +20°C), broadcast with quartz sand, at first lightly and then to excess. At temperature > 25°C broadcast immediately.

Cleaning of Tools

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

Potlife

Temperatures	Time
+10°C	~ 80 minutes
+20°C	~ 40 minutes
+30°C	~ 20 minutes

Waiting Time / Overcoatability

Before applying **Sikafloor®-350 Elastic** on Sikafloor®-156 allow:

Substrate temperature	Minimum	Maximum
+10°C	24 hours	4 days
+20°C	12 hours	2 days
+30°C	6 hours	1 day

Before applying Sikafloor®-355 N on **Sikafloor®-350 Elastic** allow:

Substrate temperature	Minimum	Maximum
+10°C	24 hours	48 hours
+20°C	15 hours	24 hours
+30°C	8 hours	16 hours

Before applying Sikafloor®-354 on **Sikafloor®-350 Elastic** broadcast allow:

Substrate temperature	Minimum	Maximum
+10°C	24 hours	*
+20°C	15 hours	*
+30°C	8 hours	*

* No max. waiting time if fully broadcast surface is free from all contaminations.
Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

Notes on Application / Limitations

Do not apply **Sikafloor®-350 Elastic** on substrates in which significant vapour pressure may occur.
Freshly applied **Sikafloor®-350 Elastic** 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®-350 Elastic** (wear head and wrist bands).
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.

Curing Details

Applied Product ready for use

Temperature	Foot traffic	Light traffic	Full cure
+10°C	~ 24 hours	~ 5 days	~ 10 days
+20°C	~ 15 hours	~ 3 days	~ 7 days
+30°C	~ 8 hours	~ 2 days	~ 5 days

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

Notes

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 should refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

EU Regulation 2004/42 VOC - Decopaint Directive

According to the EU-Directive 2004/42, the maximum allowed content of VOC Product category IIA / **j** Type **sb**) is 550 /500 g/l (Limits 2007 / 2010), for the ready to use product.

The maximum content of **Sikafloor®-350** is < 500 g/l VOC for the ready to use product.

Construction

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 should 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)
Bldg. 925, Road 115, Sitra Area 601
P.O. Box 15776
Adliya, Kingdom of Bahrain
TEl.:+973 17738 188
Fax:+973 17732 476
E-mail:sika.gulf@bh.sika.com
Web: http//www.sika.com.bh