

# Sikafloor®-350 N Elastic

2-part PUR highly elastic, crack-bridging coating

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**Product Description** Sikafloor®-350 N Elastic is a two part, solvent free, highly elastic polyurethane resin.

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**Uses**

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

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**Characteristics / Advantages**

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

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## Test

**Approval / Standards** Coating for concrete protection according to the requirements of EN 1504-2:2004 and the EN 13813:2002, DoP 0208010402500000011008 certified by Factory Production Control Body, 0921 and provided with the CE-mark.

Certified as part of the Surface Protection System OS 11a according to DIN EN 1504-2 and DIN V 18026.

Certified as part of the Surface Protection System OS 11b according to DIN EN 1504-2 and DIN V 18026.

Reaction to Fire classification according to DIN EN 13501-1. Test institute Hoch Report No. KB-Hoch-101213 and MPA Dresden Report No. 2007-B-0181/8

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## Product Data

### Form

**Appearance / Colours** Pebble grey

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

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**Packaging**

Part A:	9 kg
Part B:	21 kg
Part A+B:	30 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

<b>Chemical Base</b>	Polyurethane
<b>Density</b>	Part A: ~ 1.83 kg/l Part B: ~ 1.02 kg/l Part A+B: ~ 1.18 kg/l
<b>Solid Content</b>	~ 100% (by volume) / ~ 100% (by weight)
<b>USGBC LEED Rating</b>	Sikafloor®-350 N Elastic conforms to the requirements of LEED EQ Credit 4.2: Low-Emitting Materials: Paints & Coatings SCAQMD Method 304-91 VOC Content < 100 g/l
<b>EU Regulation 2004/42 VOC - Decopaint Directive</b>	According to the EU-Directive 2004/42, the maximum allowed content of VOC (Product category IIA / j type <b>sb</b> ) is 500 g/l (Limits 2010) for the ready to use product. The maximum content of <b>Sikafloor®-350 N Elastic</b> is < 500 g/l VOC for the ready to use product.

## Mechanical / Physical Properties

<b>Tensile Strength</b>	~ 5.0 N/mm <sup>2</sup>	(DIN 53504)
<b>Shore A Hardness</b>	60	(DIN 53505)
<b>Elongation at Break</b>	~ 500%	(DIN 53504)
<b>Crack-Bridging Capacity</b>	~ 0.35 mm at -20°C (static and dynamic - system test in acc. with DafStb Rili-SIB)	

## Resistance

### Thermal Resistance

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

\*No simultaneous chemical and mechanical exposure.

## System Information

### System Structure

*Broadcast highly crack-bridging coloured screed (OS 11a, according to DIN EN 1504-2 and DIN V 18026):*

Primer: 1-2 x Sikafloor®-156 / -161 lightly broadcast with quartz sand 0.4 - 0.7 mm

Base coat: Sikafloor®-350 N Elastic

Wearing course: Sikafloor®-375 (filled with 20% quartz sand 0.1 - 0.3 mm)  
Broadcast to excess with quartz sand 0.7 - 1.2 mm

Seal coat: 1-2 x Sikafloor®-378 or Sikafloor®-359 N\*

*Broadcast coloured flexible screed (OS 11b, according to DIN EN 1504-2 and DIN V 18026):*

Primer: 1-2 x Sikafloor®-156 / -161 lightly broadcast with quartz sand 0.3 - 0.8 mm

Wearing course: Sikafloor®-350 N Elastic (filled with 20% quartz sand 0.1 - 0.3 mm)  
Broadcast to excess with quartz sand 0.3 - 0.8 mm  
or 0.7 - 1.2 mm

Seal coat: 1-2 x Sikafloor®-378 or Sikafloor®-359 N\*

**\*For UV exposed areas the use of Sikafloor®-359 N as a seal coat is mandatory.**

*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

#### Broadcast highly crack-bridging coloured screed (OS 11a):

Coating System	Product	Consumption
Primer (lightly blinded)	1-2 x Sikafloor®-156 / -161 Quartz sand 0.3 - 0.8 mm	1-2 x ~0.3 - 0.5 kg/m <sup>2</sup> ~ 0.8 kg/m <sup>2</sup>
Base coat	Sikafloor®-350 N Elastic	~ 2.2 kg/m <sup>2</sup>
Wearing course	Sikafloor®-375 filled	~ 1.86 kg/m <sup>2</sup> (1.55 kg/m <sup>2</sup> binder + 0.31 kg/m <sup>2</sup> quartz sand 0.1- 0.3 mm)
	Broadcast to excess with quartz sand 0.7 - 1.2 mm	~6 - 8 kg/m <sup>2</sup>
Seal coat	1-2 x Sikafloor®-378 or -359N*	~0.7 - 0.9 kg/m <sup>2</sup>

#### Broadcast coloured flexible screed (OS 11b):

Coating System	Product	Consumption
Primer (lightly blinded)	1-2 x Sikafloor®-156 / -161 Quartz sand 0.3 - 0.8 mm	1-2 x ~0.3 - 0.5 kg/m <sup>2</sup> ~ 0.8 kg/m <sup>2</sup>
Wearing course	Sikafloor®-350N Elastic	~ 2.40 kg/m <sup>2</sup> (2.00 kg/ m <sup>2</sup> binder + 0.40 kg/ m <sup>2</sup> quartz sand 0.1-0.3 mm)
	Broadcast to excess with quartz sand 0.3 - 0.8 mm or 0.7 - 1.2 mm	~6 - 8 kg/m <sup>2</sup>
Seal coat	1-2 x Sikafloor®-378 or -359N*	~0.7 - 0.9 kg/m <sup>2</sup>

#### For application on sloping surfaces

Slope (%)	Extender T (wt.-%, related to Sikafloor®-350 N Elastic at +20°C
0 - 2.5	-
2.5 - 5.0	1
5.0 - 10.0	2
10 - 15	2.5
15 - 20	3

\*For UV exposed areas the use of Sikafloor®-359 N as a seal coat is mandatory.

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

The concrete substrate must be sound and of sufficient compressive strength (minimum 25 N/mm<sup>2</sup>) with a minimum pull off strength of 1.5 N/mm<sup>2</sup>.

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.



<b>Substrate Preparation</b>	<p>Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface.</p> <p>Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed.</p> <p>Repairs to the substrate, filling of blowholes/voids and surface levelling can be carried out using appropriate products from the Sikafloor®, SikaDur® and SikaGard® range of materials.</p> <p>The concrete or screed substrate has to be primed or levelled in order to achieve an even surface.</p> <p>High spots must be removed by e.g. grinding.</p> <p>All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.</p>
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## Application Conditions / Limitations

<b>Substrate Temperature</b>	+10°C min. / +30°C max.
<b>Ambient Temperature</b>	+10°C min. / +30°C max.
<b>Substrate Moisture Content</b>	<p>≤ 4% pbw moisture content.</p> <p>Test method: Sika®-Tramex meter, CM – measurement or Oven-dry-method.</p> <p>No rising moisture according to ASTM (Polyethylene-sheet).</p>
<b>Relative Air Humidity</b>	80% r.h. max.
<b>Dew Point</b>	<p>Beware of condensation!</p> <p>The substrate and uncured floor must be at least 3°C above dew point to reduce the risk of condensation or blooming on the floor finish.</p>

## Application Instructions

<b>Mixing</b>	Part A : part B = 30 : 70 (by weight)
<b>Mixing Time</b>	<p>Prior to mixing, stir part B mechanically. When all of part A has been added to part B, mix continuously for 2 minutes until a uniform mix has been achieved.</p> <p>When parts A and B have been mixed, add the quartz sand 0.1 - 0.3 mm and mix for a further 2 minutes until a uniform mix has been achieved.</p> <p>To ensure thorough mixing pour materials into another container and mix again to achieve a consistent mix.</p> <p>Over mixing must be avoided to minimise air entrainment.</p>
<b>Mixing Tools</b>	Sikafloor®-350 N Elastic must be thoroughly mixed using a low speed electric stirrer (300 - 400 rpm) or other suitable equipment.
<b>Application Method / Tools</b>	<p>Prior to application, confirm substrate moisture content, r.h. and dew point.</p> <p>If &gt; 4% pbw moisture content, Sikafloor® EpoCem® may be applied as a T.M.B. (temporary moisture barrier) system.</p> <p><i>Primer:</i></p> <p>For top decks and exposed areas, it is recommended to prime twice with Sikafloor®-156 in order to seal the substrate properly and avoid blistering. Make sure that a continuous, pore free coat covers the substrate. Preferred application is by using a squeegee and then backrolling crosswise.</p> <p><i>Broadcast wearing course:</i></p> <p>Sikafloor®-350 N 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 &gt; 25°C broadcast immediately.</p>



## 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

Temperatures	Time
+10°C	~ 60 minutes
+20°C	~ 30 minutes
+30°C	~ 15 minutes

## Waiting Time / Overcoating

Before applying Sikafloor®-350 N Elastic 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®-350 N Elastic on Sikafloor®-161 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®-378 / -359 N on Sikafloor®-350 N 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 N Elastic on substrates with rising moisture.

Freshly applied Sikafloor®-350 N Elastic must be protected from damp, condensation and water for at least 24 hours.

Uncured material reacts in contact with water (foaming). During application care must be taken that no sweat drops into fresh Sikafloor®-350 N Elastic (wear head and wrist bands).

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

If heating is required do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of both CO<sub>2</sub> and H<sub>2</sub>O 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	~ 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.

## 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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