BUILDING TRUST

PRODUCT DATA SHEET
Sikafloor®-350 N

TWO PART PUR HIGHLY ELASTIC, CRACK-BRIDGING COATING (ONLY TO BE APPLIED BY A SIKA APPROVED CONTRACTOR)

PRODUCT DESCRIPTION

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

USES

- For highly elastic, crack-bridging, trafficable, slip resistant wearing layers
- Particularly suitable 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 as a broadcast system
- Watertight
- Economical in use
- Solvent free

TESTS

APPROVAL / STANDARDS

USGBC & LEED RATING

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 < 100g/l.

PRODUCT DATA

FORM

Polyurethane

COLOUR

Pebble Grey

Resin - Part A: Light Brown, liquid
Hardener - Part B: Transparent, liquid

PACKAGING

Part A: 9kg
Part B: 21kg
Part A+B: 30kg ready to mix units

STORAGE	Twelve (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.
TECHNICAL DATA	**DENSITY** Part A: ~ 1.83kg/l Part B: ~ 1.02kg/l Part A+B: ~ 1.18kg/l **SOLIDS CONTENT** ~ 100% (by volume) / ~ 100% (by weight)
MECHANICAL / PHYSICAL PROPERTIES	**TENSILE STRENGTH** ~ 5.0N/mm^2 (DIN 53504) **SHORE A HARDNESS** 60 (DIN 53505) **ELONGATION AT BREAK** ~ 500% (DIN 53504) **CRACK BRIDGING CAPACITY** ~ 0.35 mm at -20°C (static and dynamic - system test in acc. with DafStb Rili-SIB) **THERMAL RESISTANCE**

***EXPOSURE**	**DRY HEAT**
Permanent	+50°C
Short term max. 7 days	+80°C
Short term max. 24 hours	+100°C

*No simultaneous chemical and mechanical exposure.

System Information

SYSTEM STRUCTURE

Broadcast highly crack-bridging coloured screed (OS 11a, according to DAfStb Rili-SIB 2001):

Primer:	Sikafloor-156 / Sikafloor-161 lightly broadcast with Sika Aggregate 501
Base coat:	Sikafloor-350 Elastic
Wearing course:	Sikafloor-375 (filled with 20% Sika Aggregate 508) Broadcast to excess with Sika Aggregate 501
Seal coat:	Sikafloor-359 N

Broadcast coloured flexible screed (OS 11b, according to DAfStb Rili-SIB 2001):

Primer:	Sikafloor-156 / Sikafloor-161 lightly broadcast with Aggregate 501
Wearing course:	Sikafloor-350 N Elastic (filled with 20% Sika Aggregate 508), Broadcast to excess with Sika Aggregate 501
Seal coat:	Sikafloor-359 N

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

CONSUMPTION / DOSAGE

Broadcast highly crack-bridging coloured screed (OS 11a, according to DAfStb Rili-SIB 2001):

COATING SYSTEM	PRODUCT	CONSUMPTION
Primer (lightly blinded)	Sikafloor-156 Sika Aggregate 501	1-2 x 0.3 - 0.5kg/m^2 ~ 0.8kg/m^2
Base coat	Sikafloor-350 N Elastic	~ 2.2kg/m^2
Wearing course	Sikafloor-375 filled Broadcast to excess with Sika Aggregate 501	~ 1.86kg/m^2 (1.55kg/m^2 binder + 0.31kg/m^2 Sika Aggregate 508) 6 – 8kg/m^2
Seal coat	Sikafloor-359 N	0.7 - 0.9kg/m^2

Broadcast coloured flexible screed (OS 11b, according to DAfStb Rili-SIB 2001):

COATING SYSTEM	PRODUCT	CONSUMPTION
Primer (lightly blinded)	Sikafloor-156 Sika Aggregate 501	1-2 x 0.3 - 0.5kg/m^2 ~ 0.8kg/m^2
Wearing course	Sikafloor-350 N Elastic filled Broadcast to excess with Sika Aggregate 501	~ 2.4kg/m^2 (2.0 kg/m^2 binder + 0.4kg/m^2 Sika Aggregate 508) 6 – 8kg/m^2
Seal coat	Sikafloor-359 N	0.7 - 0.9kg/m^2

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

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 25N/mm^2) with a minimum pull off strength of 1.5N/mm^2.

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.

SURFACE 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 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 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 MOISTURE CONTENT
≤ 4% pbw moisture content.

Test method: Sika®-Tramex meter, CM – measurement or Oven-dry-method.

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 dew point to reduce the risk of condensation or blooming on the floor finish.

APPLICATION INSTRUCTIONS

MIXING

Part A : part B = 30 : 70 (by weight)

MIXING TIME

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.

When parts A and B have been mixed, add the Sika Aggregate 508 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

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.

Primer:
For top decks and exposed areas, it is recommended to prime twice with Sikafloor-156 or Sikafloor-161 in order to seal the substrate properly and avoid blistering.

Broadcast wearing course:
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 Sika Aggregate, at first lightly and then to excess. At temperature > 25°C broadcast immediately.

CLEANING OF TOOLS

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

POTLIFE

TEMPERATURES	TIME	
+10°C	+20°C	+30°C
~ 60 minutes	~ 30 minutes	~ 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-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.

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 N 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 Scrapper No. 565, Toothed blades No. 25

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_2 and H_2O 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

CE LABELLING

The harmonized European Standard EN 13 813 'Screed material and floor screeds - Screed materials - Properties and requirements' specifies requirements for screeds material for use in floor construction internally.

Structural screeds or coatings, i.e. those that contribute to the load bearing capacity of the structure, are excluded from this standard.

The resin floor systems as well as screeds fall under this specification. They have to be CE-labelled as per Annex ZA. 3, Table ZA.1.5 and 3.3 and fulfil the requirements of the given mandate of the Construction Products Directive (89/106):

CE	
Sika (NZ) Ltd 85-91 Patiki Road, Avondale Auckland, New Zealand	
07 [1]	
EN 13813 SR-B1,5-AR1-IR 4	
Resin screed/coating for indoors in buildings (systems as per Product Data Sheet)	
Reaction to fire:	E_{fl} [2]
Release of corrosive substances (**S**ynthetic **R**esin Screed):	SR
Water permeability:	NPD [3]
Abrasion **R**esistance:	AR1 [4]
Bond strength:	B 1.5
Impact **R**esistance:	IR 4
Sound insulation:	NPD
Sound absorption:	NPD
Thermal resistance:	NPD
Chemical resistance:	NPD

[1] Last two digits of the year in which the marking was affixed.

[2] Min. classification, please refer to the individual test certificate.

[3] No performance determined.

[4] Not broadcast with sand.

CE LABELLING

The harmonized European Standard EN 1504-2 'Products and systems for the protection and repair of concrete structures – Definitions, requirements, quality control and evaluation of conformity – Part 2 : Surface protection systems for concrete' gives specifications for products and systems used as methods for the various principles presented under EN 1504-9.

Products which fall under this specification have to be CE-labelled as per Annex ZA. 1, Tables ZA.1a to ZA 1g according to the scope and relevant clauses there indicated, and fulfil the requirements of the given mandate of the Construction Products Directive (89/106):

Here below indicated are the minimum performance requirements set by the standard. For the specific performance results of the product to the particular tests, please see the actual values above in the PDS.

CE	
0921	
Sika (NZ) Ltd 85-91 Patiki Road, Avondale Auckland, New Zealand	
08[1)]	
0921–CPD–2017	
EN 1504-2	
Surface Protection Product Coating [2)]	
Abrasion resistance (Taber test):	< 3000mg
Permeability to CO_2:	S_D > 50m
Permeability to water vapour:	Class II
Capillary absorption and permeability to water:	$w < 0.1 kg/m^2 \times h^{0,5}$
Resistance to severe chemical attack: [3)]	Class I
Impact resistance:	Class I
Adhesion strength by pull-off test:	≥ 2.0N/mm²
Fire Classification: [4)]	E_{fl}

[1)] Last two digits of the year in which the marking was affixed.

[2)] Tested as a part of a system build-up with Sikafloor-161 and Sikafloor-359 N.

[3)] Please refer to the Sikafloor Chemical Resistance Chart.

[4)] Min. classification, please refer to the individual test certificate.

EU REGULATION 2004/42	According to the EU-Directive 2004/42, the maximum allowed content of VOC (Product category IIA / **j** type **sb**) is 500g/l (Limit 2010) for the ready to use product.
VOC - DECOPAINT DIRECTIVE	The maximum content of **Sikafloor-300 N Elastic** is < 500g/l VOC for the ready to use product.

FOR MORE SIKAFLOOR®-350 N INFORMATION:

Sika (NZ) Limited
Flooring
PO Box 19192, Avondale
Auckland 1746
New Zealand
www.sika.co.nz

Phone: 0800 745 269
Fax: 0800 745 232
Mail: info@nz.sika.com