

# PRODUCT DATA SHEET

## Sikafloor®-156

LOW VISCOSITY, SOLVENT-FREE EPOXY PRIMER  
(ONLY TO BE APPLIED BY A SIKA APPROVED CONTRACTOR)

### PRODUCT DESCRIPTION

Sikafloor-156 is a low viscosity, solvent free two part epoxy resin. 'Total solid epoxy composition acc. to the test method Deutsche Bauchemie e.V. (German Association for construction chemicals)'.

#### USES

- For priming concrete substrates, cement screeds and epoxy mortars
- For normal to strongly absorbent surfaces
- Primer for all Sika Epoxy and polyurethane flooring
- Binder for levelling mortars and mortar screeds
- For internal and external use as a primer

#### CHARACTERISTICS / ADVANTAGES

- Low viscosity
- Good penetration ability
- High bond strength
- Easy application
- Short waiting times
- Multi-purpose

### TESTS

#### APPROVAL / STANDARDS

#### USGBC

Sikafloor-156 conforms to the requirements of LEED  
EQ Credit 4.2: Low-Emitting Materials: Paints & Coatings

#### LEED Rating

SCAQMD Method 304-91 VOC Content < 100g/l

### PRODUCT DATA

#### FORM

Epoxy

#### COLOUR

Resin: Part A      Transparent liquid

Hardener: Part B      Brownish liquid

#### PACKAGING

Factory proportioned 16kg kit - (Part A = 12kg, Part B = 4kg)

Bulk packaging - (Part A = 180kg, Part B = 180kg)

<b>STORAGE</b>	Two (2) years from date of production if properly stored in unopened original and undamaged sealed packaging when stored in dry conditions between +5°C to and +30°C.		
<b>TECHNICAL DATA</b>	<b>DENSITY:</b>		
	Part A:	~ 1.10kg/l	Part B: ~ 1.02kg/l
	Mixed Resin:	~ 1.1kg / litre	DIN EN ISO 2811-1
	All density values at +23°C		
	<b>SOLIDS CONTENT:</b>	~ 100% (by volume) / ~ 100% (by weight)	
<b>MECHANICAL/PHYSICAL PROPERTIES</b>	<b>COMPRESSIVE STRENGTH:</b>	Mortar: ~ 55N/mm <sup>2</sup> (30 days / +23°C / 50% r.h.)	
	<b>FLEXURAL STRENGTH:</b>	Mortar: ~ 15N/mm <sup>2</sup> (30 days / +23°C / 50% r.h.)	
	Mortar screed: SR-156 mixed 1:10 with the suitable sand mixture, mentioned below.		
	<b>BOND STRENGTH:</b>	> 1.5N/mm <sup>2</sup> (failure in concrete)	(EN 4624)
	<b>SHORE 'D' HARDNESS:</b>	83 (7 days / +23°C / 50% r.h.)	(DIN 53505)
	<b>THERMAL RESISTANCE:</b>		
	<b>EXPOSURE*</b>	<b>DRY HEAT</b>	
	Permanent	+50°C	
	Short term max. 7 days	+80°C	
	Short term max. 12 hours	+100°C	
	Short-term moist/wet heat* up to +80°C where exposure is only occasional (steam cleaning, etc.).		
	* No simultaneous chemical and mechanical exposure		

## System Information

### SYSTEM STRUCTURE

#### Primer

Low/medium porosity concrete: 1 x Sikafloor-156

High porosity concrete: 2 x Sikafloor-156

#### *Levelling mortar fine (surface roughness < 1mm)*

Primer: 1 x Sikafloor-156

Levelling mortar: 1 x Sikafloor-156 + Sika Aggregate 508 + Extender T

#### *Levelling mortar medium (surface roughness up to 2mm)*

Primer: 1 x Sikafloor-156

Levelling mortar: 1 x Sikafloor-156 + Sika Aggregate 508 + Extender T

#### *Mortar screed (5 – 20mm layer thickness) / Repair Mortar*

Primer: 1 x Sikafloor-156

Bonding bridge: 1 x Sikafloor-156

Screed: 1 x Sikafloor-156 + Sika Aggregate 506

In practice the following sand mixtures proved to be suitable (grain size distribution for layer thicknesses of 15 - 20mm):

25pbw quartz sand 0.1 - 0.5mm

25pbw quartz sand 0.4 - 0.7mm

25pbw quartz sand 0.7 - 1.2mm

25pbw quartz sand 2 - 4mm

Note: The largest grain size should be a maximum 1/3 of the finished layer thickness. Dependent on the grain shape and application temperatures, the aggregates and the most suitable mix should be selected.

COATING SYSTEM	PRODUCT	CONSUMPTION
Priming	Sikafloor-156	1 - 2 x 0.3 - 0.5kg/m <sup>2</sup>
Levelling mortar fine (surface roughness <1mm)	1pbw Sikafloor-156 + 0.5pbw Sika Aggregate 508 + 0.015pbw Extender T	1.4kg/m <sup>2</sup> /mm
Levelling mortar medium (surface roughness up to 2mm)	1pbw Sikafloor-156 + 1pbw Sika Aggregate 508 + 0.015pbw Extender T	1.6kg/m <sup>2</sup> /mm
Bonding Bridge	1-2 x Sikafloor-156	1 - 2 x 0.3 - 0.5kg/m <sup>2</sup>
Mortar Screed (15-20mm layer thickness) / Repair Mortar	1pbw Sikafloor-156 + up to 10pbw Sika Aggregate 506	2.2kg/m <sup>2</sup> /mm

**Note:** These figures are theoretical and do not include for any additional material required 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/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.
- On critical substrates, e.g a strong absorbent cementitious surface, the application of a trial area is highly recommended, in order to ensure a pore free surface, after priming.

## SURFACE 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 can be removed by 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.

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**APPLICATION INSTRUCTIONS****MIXING**

Part A : Part B = 75 : 25 (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 3 minutes until a uniform mix has been achieved.
- When Parts A and B have been mixed, add the quartz sand and if required the Extender T 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 minimize air entrainment.

**MIXING TOOLS**

- Sikafloor-156 must be mechanically mixed using an electric power stirrer (300 – 400 rpm) or other suitable equipment.
- For the preparation of mortars use a forced action mixer of rotating pan, paddle or trough type. Free fall mixers should not be used.

**APPLICATION METHOD/TOOLS**

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- 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).

*Primer*

Make sure that a continuous, pore free coat covers the substrate. If necessary, apply two priming coats. Apply Sikafloor-156 by brush, roller or squeegee. Preferred application is by using a squeegee and then backrolled crosswise.

*Levelling Mortar*

Rough surfaces need to be levelled first. Apply the levelling mortar by squeegee/trowel to the required thickness.

*Bonding Bridge*

Apply Sikafloor-156 by brush, roller or squeegee then backroll crosswise.

*Mortar Screed / Repair Mortar*

Apply the mortar screed evenly on the still “tacky” bonding bridge, using leveling battens and screed rails as necessary. After a short waiting time compact and smoothen the mortar with a trowel or Teflon coated power float (usually 20-90 rpm).

**CLEANING OF TOOLS**

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

**POT LIFE**

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<i>Temperature</i>	<i>Time</i>
+10°C	~ 60 minutes
+20°C	~ 30 minutes
+30°C	~ 15 minutes

**WAITING TIME / OVERCOATABILITY**

Before applying solvent free products on Sikafloor-156 allow:

<i>Substrate Temperature</i>	<i>Minimum</i>	<i>Maximum</i>
+10°C	24 hours	4 days
+20°C	12 hours	2 days
+30°C	6 hours	24 hours

Before applying solvent containing products on Sikafloor-156 allow:

<i>Substrate Temperature</i>	<i>Minimum</i>	<i>Maximum</i>
+10°C	36 hours	6 days
+20°C	24 hours	4 days
+30°C	12 hours	2 days

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

**NOTES ON APPLICATION / LIMITATIONS**

- Do not apply Sikafloor-156 on substrates with rising moisture.
- Freshly applied Sikafloor-156 should be protected from damp, condensation and water for at least 24 hours.
- Sikafloor-156 mortar screed is not suitable for frequent or permanent contact with water unless sealed.
- Practical trials should be carried out for mortar mixes to assess suitable aggregate grain size distribution.
- For external applications, apply while the temperature is falling. If applied during rising temperatures "pin holing" may occur from rising air.

Construction joints require pre-treatment. Treat as follows:

*Static Cracks*

Prefill and level with Sikadur or Sikafloor epoxy resin.

*Dynamic Cracks*

To be assessed. If necessary apply a stripe coat of elastomeric material or design as a movement joint.

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

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 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**

<i>Temperature</i>	<i>Foot Traffic</i>	<i>Light Traffic</i>	<i>Full Cure</i>
+10°C	~ 24 hours	~ 5 days	~ 10 days
+20°C	~ 12 hours	~ 3 days	~ 7 days
+30°C	~ 6 hours	~ 2 days	~ 5 days

**Note:** Time 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.

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



## LOCAL RESTRICTIONS

## HEALTH AND SAFETY INFORMATION

Product Data Sheet for the exact description of the application fields.

During application in closed rooms, pits and shafts, etc., sufficient ventilation must be provided. Keep away open light including welding. Use of basic principles of industrial hygiene, such as rubber gloves, goggles and protective clothing will enable this product to be used safely. Change soiled work clothes and wash hands before eating and after finishing work.

For full 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.

## TRANSPORTATION CLASS

- Sikafloor-156 Component A is classified as hazardous for transportation. Haz. class 9, UN No. 3082, Packing Group III.
- Sikafloor-156 Component B is classified as hazardous for transportation. Haz. class 8, UN No. 1760, Hazchem code 2[R], Packing Group III.

## IMPORTANT NOTES

- Uncured/unmixed material must be removed according to local regulations. Fully cured material can be disposed of as household waste under agreement with the responsible local authorities.
- Detailed health and safety information as well as detailed precautionary measures e.g. physical, toxicological and ecological data can be obtained from the safety data sheet

## 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.

## CE LABELLING

The harmonized European Standard EN 13 813 „Screed material and floor screeds - Screed materials - Properties and requirements“ specifies requirements for screed materials 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):

	
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04 <sup>1)</sup>	04 <sup>1)</sup>
EN 13813 SR-B1,5-AR1-IR 4	EN 13 813 SR-B1,5
Resin screed/coating for indoors in buildings (systems as per Product Data Sheet)	Primer (systems as per Product Data Sheet)
Reaction to fire: E <sub>fl</sub> <sup>2)</sup>	NPD <sup>3)</sup>
Release of corrosive substances (Synthetic Resin Screed): SR	SR
Water permeability: NPD <sup>3)</sup>	NPD
Abrasion Resistance: AR1 <sup>4)</sup>	NPD
Bond strength: B 1,5	B 1,5
Impact Resistance: IR 4	NPD
Sound insulation: NPD	NPD
Sound absorption: NPD	NPD
Thermal resistance: NPD	NPD
Chemical resistance: NPD	NPD

<sup>1)</sup> Last two digits of the year in which the marking was affixed.

<sup>2)</sup> In Germany, DIN 4102 still applies. Passed class B2.

<sup>3)</sup> No performance determined.

<sup>4)</sup> 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.

<b>CE</b>	
0921	
Sika Deutschland GmbH Kornwestheimerstraße 103-107 D - 70439 Stuttgart	
08 <sup>1)</sup>	
0921-CPD-2017	
EN 1504-2	
Surface Protection Product Coating <sup>2)</sup>	
Abrasion resistance (Taber test):	< 3000mg
Permeability to CO <sub>2</sub> :	S <sub>D</sub> > 50m
Permeability to water vapour:	Class III
Capillary absorption and permeability to water:	w < 0.1kg/m <sup>2</sup> x h <sup>0.5</sup>
Resistance to severe chemical attack: <sup>3)</sup>	Class I
Impact resistance:	Class II
Adhesion strength by pull-off test:	≥ 2.0N/mm <sup>2</sup>
Fire Classification: <sup>4)</sup>	E <sub>n</sub>

<sup>1)</sup> Last two digits of the year in which the marking was affixed.

<sup>2)</sup> Tested as a part of a system build-up with Sikafloor-261.

<sup>3)</sup> Please refer to the Sikafloor Chemical Resistance Chart.

<sup>4)</sup> Min. classification, please refer to the individual test certificate.

#### 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 500 g/l (Limit 2010) for the ready to use product.

The maximum content of **Sikafloor-156** is < 500g/l VOC for the ready to use product.

### FOR MORE SIKAFLOOR®-156 INFORMATION:



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Product Data Sheet  
Sikafloor®-156  
11/09/2015, 09/15  
Sikafloor-156 - PDS - 0915 repl 0913

Asia Pacific | NZ  
Flooring