Product Data Sheet
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Construction

Sikafloor®-156

2-Part Epoxy Primer, Levelling Mortar and Mortar Screed

Product Description	**Sikafloor®-156** is a low viscosity, solvent free two part epoxy resin. Suitable for use in hot and tropical climates.
Uses	**Sikafloor®-156** is used for; ■ Priming concrete substrates, cement screeds and epoxy mortars ■ Normal to strongly absorbent surfaces ■ Primer for all Sika Epoxy and PUR floorings ■ Binder for levelling mortars and mortar screeds ■ Internal and external use
Advantages	■ Low viscosity ■ Good penetration ability ■ High bond strength ■ Solvent free ■ Easy application ■ Short waiting times ■ Multi-purpose ■ For external use also

Product Data

Type	Epoxy resin and hardener
Appearance /Colours	Part A: Resin - transparent, liquid Part B: Hardener - brownish, liquid
Packaging	Part A: 1.875 kg, 7.5 kg and 18.75 kg containers Part B: 0.625 kg, 2.5 kg and 6.25 kg containers Part A+B: 2.5 kg and 10 kg unipacks 25 kg ready to mix unit
Storage Conditions	Store in original sealed containers in a cool dry environment at temperatures between +5°C and +30°C.
Shelf Life	Minimum 24 months from date of production if stored in original unopened containers.

Technical Data

Density (at 23°C) **(DIN EN ISO 2811-1)**	Part A: ~ 1.10 kg/lt Part B: ~ 1.02 kg/lt Mixed Resin: ~ 1.1 kg/lt
Mixing Ratio	Component A:B = 75:25

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

Mechanical / Physical Properties

Compressive Strength (EN 196-1)	Resin: ~ 70 N/mm² Mortar: ~ 95 N/mm² (7 days / +23°C / 50% r.h.)
Flexural Strength (EN 196-1)	Resin: ~ 75 N/mm² Mortar: ~ 30 N/mm² (7 days / +23°C / 50% r.h.)
Bond Strength (EN 4624)	> 1.5 N/mm² (failure in concrete)
Shore D Hardness (DIN 53505)	83 (7days / +23°C / 50% r.h.)

Thermal Resistance

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

Short-term moist/wet heat* up to +80°C where exposure is only occasional (steam cleaning etc.).
*With 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 < 1 mm)
Primer: 1 x Sikafloor®-156
Levelling mortar: 1 x Sikafloor®-156 + quartz sand (0.1 - 0.3 mm) + Extender T

Levelling mortar (surface roughness up to 2 mm)
Primer: 1 x Sikafloor®-156
Levelling mortar: 1 x Sikafloor®-156 + quartz sand (0.1 - 0.3 mm) + Extender T

Mortar Screed (15 - 20 mm layer thickness) / Repair Mortar
Primer: 1 x Sikafloor®-156
Bonding bridge: 1 x Sikafloor®-156
Screed: 1 x Sikafloor®-156 + suitable sand mixture

In practice the following sand mixtures proved to be suitable (grain size distribution for layer thicknesses of 15 - 20 mm):
25 pbw quartz sand 0.1 - 0.5 mm
25 pbw quartz sand 0.4 - 0.7 mm
25 pbw quartz sand 0.7 - 1.2 mm
25 pbw quartz sand 2 - 4 mm

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.

Application Details

Consumption / Dosage

Coating System	Product	Consumption
Priming	Sikafloor®-156	0.3 - 0.5 kg/m²
Levelling mortar fine (surface roughness < 1 mm)	1 pbw Sikafloor®-156 + 0.5 pbw quartz sand (0.1-0.3 mm) + 0.015 pbw Extender T	1.4 kg/m²/mm
Levelling mortar medium (surface roughness up to 2 mm)	1 pbw Sikafloor®-156 + 1 pbw quartz sand (0.1 - 0.3 mm) +0.015 pbw Extender T	1.6 kg/m²/mm
Bonding Bridge	Sikafloor®-156	0.3 - 0.5 kg/m²
Mortar Screed (15 - 20 mm layer thickness) / Repair Mortar	1 pbw Sikafloor®-156 + 10 pbw quartz sand	2.2 kg/m²/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/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 can 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

Be aware 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 Instruction

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, the quartz sand and if required the Extender T 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 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

Prior to application, confirm substrate moisture content, relative humidity and dew point. If > 4% pbw moisture content, Sikafloor® EpoCem® may be applied as a temporary moisture barrier system.

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.

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.

Mortar screed / repair mortar
Apply the mortar screed evenly on the still “tacky” bonding bridge, using levelling 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 with Sika® Thinner C immediately after use. Hardened/cured material can only be mechanically removed.

Pot life

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

Waiting Time / Overcoatability

Before applying solvent free products 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 solvent containing products on **Sikafloor®-156** allow:

Substrate temperature	Minimum	Maximum
+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.

Limitations

Do not apply **Sikafloor®-156** on substrates in which significant vapour pressure may occur.
Freshly applied **Sikafloor®-156** should be protected from damp, condensation and water for at least 24 hours.
Avoid puddles on the surface with the primer.
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 on a falling temperature. If applied during rising temperatures “pin holing” may occur from rising air.

Tools
Recommended supplier of tools:
PPW-Polyplan-Werkzeuge GmbH, Phone: +49 40/5597260, www.polyplan.com

Construction joints require pre-treatment. Treat as follows:
Static Cracks – Pre-fill and level with SikaDur® or Sikafloor® epoxy resin.
Dynamic Cracks (> 0.4 mm) - To be assessed and 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.

Curing

Applied product ready for use:

Temperature	Foot traffic	Light traffic	Full cure
+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: Times are approximate and will be effected 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 Restriction

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 product uses.

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.

Construction

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®-156,** is < 500 g/l VOC for the ready to use product.

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

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