

Technical Data

Chemical Base	Epoxy	
Density	Part A: ~ 1.10 kg/l Part B: ~ 1.02 kg/l Mixed Resin: ~ 1.1 kg/l All density values at +23 °C	(DIN EN ISO 2811-1)
Solid Content	~ 100% (by volume) / ~ 100% (by weight)	

Mechanical / Physical Properties

Compressive Strength	Resin: ~ 70 N/mm ² Mortar: ~ 95 N/mm ² (7 days / +23 °C / 50% r.h.)	(EN 196-1)
Flexural Strength	Resin: ~ 75 N/mm ² Mortar: ~ 30 N/mm ² (7 days / +23 °C / 50% r.h.)	(EN 196-1)
Bond Strength	> 1.5 N/mm ² (failure in concrete)	(EN 4624)
Shore D Hardness	83 (7days / +23 °C / 50% r.h.)	(DIN 53505)

Resistance

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.).

*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 medium (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
Primer	Sikafloor®-156	0.3 - 0.5 kg/m ²
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/m ² /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/m ² /mm
Bonding Bridge	Sikafloor®-156	0.3 - 0.5 kg/m ²
Mortar Screed (15 - 20 mm layer thickness) / Repair Mortar	1 pbw Sikafloor-156 + 10 pbw quartz sand	2.2 kg/m ² /mm

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 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 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 = 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, 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:
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 Thinner C immediately after use. Hardened / cured material can only be mechanically removed.

Potlife

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.

Notes on Application / 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 - Prefill 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 Details

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

Protective Measures

During application and curing in closed rooms, pits and shafts etc., adequate fresh air ventilation must be provided. Keep away from open flames including welding.

Use of basic principles of industrial hygiene and protective clothing such as gloves and goggles etc. will enable this product to be used safely. Change soiled work clothes and wash hands before eating and after finishing work.

Local regulations and health and safety advice on packaging labels must be observed.

Ecology

Refer to Material Safety Data Sheet.

Transportation Class

Refer to Material Safety Data Sheet.

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 material safety data sheet.

Toxicity

Refer to Material 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.



CE Labelling

CE-Labeling

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):

			
Sika Limited Watchmead Welwyn Garden City Hertfordshire AL7 1BQ United Kingdom			
04 ¹⁾		04 ¹⁾	
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 _{fl} ²⁾	NPD ³⁾	
Release of corrosive substances (Synthetic Resin Screed):	SR	SR	
Water permeability:	NPD ³⁾	NPD	
Abrasion Resistance:	AR1 ⁴⁾	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	

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

²⁾ In Germany, DIN 4201 still applies. Passed class B2.

³⁾ No performance determined.

⁴⁾ Not broadcast with sand.



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