Construction

Sikafloor®-157

2-part epoxy primer and binder for levelling mortars

Product Description

Sikafloor®-157 is a fast curing two part, low viscosity, solvent free epoxy resin binder.

Uses

- For priming concrete substrates, cementitious screeds and epoxy mortars
- For normal to strongly absorbent surfaces
- Primer for all Sika Epoxy and PUR floorings
- Binder for levelling mortars
- For internal and external use

Characteristics / Advantages

- Very fast curing
- Application even at low temperatures (minimum +5°C)
- Short waiting times
- Low viscosity
- Good penetration ability
- High bond strength
- Solvent free
- Easy application

Product Data

Form

Appearance / Colours

Resin - part A: transparent, liquid
Hardener - part B: brownish, liquid

Packaging

Part A: 6.4 kg containers
Part B: 3.6 kg
Part A+B: 10 kg unipacks

Bulk packaging:
Part A: 178 kg drums
Part B: 50 kg drums

Storage

Storage Conditions/ Shelf-Life

24 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

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

Mechanical / Physical Properties

Bond Strength	> 1.5 N/mm^2 (failure in concrete) (EN 4624)
Shore D Hardness	83 (7 days / +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®-157
High porosity concrete: 2 x Sikafloor®-157

Levelling mortar (surface roughness up to 2 mm:
Primer: 1 x Sikafloor®-157
Levelling mortar: 1 x Sikafloor®-157 + quartz sand (0.1 - 0.3 mm) + Extender T (mixing ratio depends on layer thickness, see Consumption / Dosage)

Application Details

Consumption / Dosage

Coating System	Product	Consumption
Primer	Sikafloor®-157	0.3 - 0.5 kg/m²
Levelling mortar (surface roughness < 1 mm)	1 pbw Sikafloor®-157 + 0.5 pbw quartz sand (0.1 - 0.3 mm) + 0.015 pbw Extender T	1.4 kg/m²/mm
Levelling mortar (surface roughness up to 2 mm)	1 pbw Sikafloor®-157 + 1 pbw quartz sand (0.1 - 0.3 mm) + 0.015 pbw Extender T	1.6 kg/m²/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/mm^2) with a minimum pull off strength of 1.5 N/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.

Substrate 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 must 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	+5°C min. / +20°C max.
Ambient Temperature	+5°C min. / +20°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 the dew point to reduce the risk of condensation or blooming on the floor finish.

Application Instructions

Mixing	Part A : part B = 64 : 36 (by weight)
Mixing Time	Prior to mixing, stir part A mechanically. When all of part B has been added to part A mix continuously 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 minimise air entrainment.
Mixing Tools	Sikafloor®-157 must be thoroughly mixed using a low speed electric stirrer (300 - 400 rpm) or other suitable equipment.
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®-157 by brush, roller or squeegee. *Levelling mortar:* Apply the levelling mortar by squeegee/trowel to the required thickness.
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

Temperature	Time
+5℃	~ 25 minutes
+10℃	~ 20 minutes
+20℃	~ 10 minutes

Waiting Time / Overcoating

Before applying solvent free products on Sikafloor®-157 allow:

Substrate temperature	Minimum	Maximum
+5℃	24 hours	3 days
+10℃	12 hours	2 days
+20℃	5 hours	1 day

Before applying solvent containing products on Sikafloor®-157 allow:

Substrate temperature	Minimum	Maximum
+5℃	30 hours	6 days
+10℃	15 hours	4 days
+20℃	7 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®-157 on substrates with rising moisture.

Freshly applied Sikafloor®-157 should be protected from damp, condensation and water for at least 24 hours.

Avoid puddles on the surface with the primer.

For external applications, apply on a falling temperature. 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 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.

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_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
+5℃	~ 24 hours	~ 48 hours	~ 6 days
+10℃	~ 12 hours	~ 24 hours	~ 3 days
+20℃	~ 5 hours	~ 8 hours	~ 2 days

Note: Times are approximate and will be effected 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.

Construction

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):

CE		CE
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 (**S**ynthetic **R**esin Screed):	SR	SR
Water permeability:	NPD [3]	NPD
Abrasion **R**esistance:	AR1 [4]	NPD
Bond strength:	B 1,5	B 1,5
Impact **R**esistance:	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 4102 still applies. Passed class B2.

[3] No performance determined.

[4] Not broadcast with sand.

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®-157** is < 500 g/l VOC for the ready to use product.

Sika Limited
Watchmead
Welwyn Garden City
Hertfordshire
AL7 1BQ
United Kingdom

Phone +44 1707 394444
Telefax +44 1707 329129
www.sika.co.uk, email: sales@uk.sika.com

ISO 14001 ISO 9001