

Sikafloor®-155 WN

2-Part Water Based Epoxy Resin Primer

Product Description Solvent-free, water dispersed two part primer based on epoxy resin. Suitable for use in hot and tropical climates.

Uses As a primer and adhesion promoter on properly prepared:

- New concrete
- Cementitious screeds
- Hardened concrete
- Existing epoxy floor coatings
- EpoCem levelling layers

As a primer for:

- Sikafloor®-81 EpoCem® and Sikafloor®-82 EpoCem®
- Sikafloor® -20 PurCem® and Sikafloor® -21 PurCem®
- Sikafloor®-Level®-25

Characteristics / Advantages

- Easy and fast to apply
- Especially suitable for highly absorbent substrates
- Water dispersed and odourless
- Can be applied in unventilated areas
- Longer pot life than Sikafloor®-155 W
- Very good bond strength over its whole application temperature range
- Environmentally friendly

Tests

Approval / Standards All values indicated below are internal test results according to DIN 52615 and EN 13892-8.
Conforms to the requirements of EN - 13813 SR - B 1.5

Product Data

Form

Appearance / Colours

Part A:	thick coloured paste
Part B:	light yellow translucent emulsion
Mixed resin :	Oxide red (~ RAL 3009)



Packaging	Part A:	7.5 kg or 22.5 kg metal drum
	Part B:	2.5 kg or 7.5 kg plastic jerrycan
	Part A+B :	10 kg ready to mix units 30 kg ready to mix units

Storage

Storage Conditions/ Shelf-Life	12 months from date of production if stored properly in original, unopened and undamaged, sealed containers, in dry conditions, at temperatures between +5°C and +25°C. Protect from frost.
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Technical Data

Chemical Base	Water dispersed epoxy	
Density	Part A:	~ 1.6 kg/lit (at +20°C)
	Part B:	~ 1.1 kg/lit “
	Mixed resin:	~ 1.4 kg/lit “
Solid Content	~ 56% (by volume) / ~ 70% (by weight)	
Viscosity	4900 mPa.s (+20°C)	Contraves (RM 180 Rheomat)
Layer Thickness	D.F.T.: ~ 110 - 180 µm per coat	
Water Vapour Diffusion Coefficient (µH₂O)	µH ₂ O ≈ 2763	(DIN 52615)
	Equivalent air layer thickness for 1 mm thickness: Sd ≈ 0.27 m	

Mechanical / Physical Properties

Bond Strength	After 28 days at +23°C / 50% r.h. (EN 13892-8)	
	Hardened concrete:	
	C35 Concrete according to UNE-EN 1766	> 1.5 N/mm ² concrete failure
	(1.5 N/mm ² is the minimum pull off strength of the recommended concrete substrate).	

System Information

System Structure	1 - 2 coats (dependent on substrate porosity).
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Application Details

Consumption / Dosage	0.3 - 0.5 kg/m ² /coat. (2 - 3.3 m ² /kg/coat). Sikafloor®-155 WN , diluted with water 10% by weight for the first coat. Undiluted for the second coat. This figure is theoretical and does not include for any additional material required due to surface porosity, surface profile, variation in level or wastage, etc.
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Substrate Quality	The concrete substrate 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 can be damp but must be free of standing water (no puddles!) and be free of all contaminants such as oils, grease, coatings and surface treatments etc.
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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 blow holes 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. 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 Conditions / Limitations

Substrate Temperature +10°C min. / +35°C max.

Ambient Temperature +10°C min. / +35°C max.

Substrate Moisture Content Test method: Sika®-Tramex meter, CM - measurement or Oven-dry-method. Always confirm substrate moisture content prior to the application of the primer. < 4% for impervious resin finishes. No rising moisture according to ASTM D 4263 test (Polyethylene sheet).

< 6% for Sikafloor® EpoCem® range, Sikafloor® PurCem® range and for Sikafloor®-Level®-25 (with vapour permeable finish) or other products in the Sikafloor®-Level® range.

Can be applied on matt - damp green concrete when overcoating with the Sikafloor® EpoCem® range.

Relative Air Humidity 85% 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 surface of the applied product.

Application Instructions

Mixing Part A : B = 3 : 1 by weight

Mixing Time Prior to mixing, mechanically thoroughly stir part A (resin) well, then add all of part B (hardener) and mix both liquid parts thoroughly for one minute until a uniform mix has been achieved.
When parts A and B have been mixed for one minute for the first coat, slowly add 10% of clean water while mixing continues for a further two minutes, until a fully homogenous mix has been achieved.
For the second coat, do not add additional water, but continue the mixing for a total of 3 minutes until a fully homogenous mix has been achieved.
To ensure thorough mixing of both coats, after the minimum 3 minutes mixing, pour the mixed material into another container carefully scraping the sides and mixing paddle with a spatula and then mix again briefly to ensure complete and thorough mixing.
Excessive mixing must also be avoided to minimise air entrainment.

Mixing Tools Low speed electric stirrer(~ 300 - 400 rpm)

Application Method / Tools Apply Sikafloor®-155 WN by suitable brush, roller or trowel and overwork with a roller.
Caution:
The end of the product's potlife is not noticeable! Keep within the limitations mentioned below. Discard material not used within these times.

Cleaning of Tools Clean all tools and application equipment with water immediately after use. Hardened / cured material can only be removed mechanically.

Potlife

Temperature	Time
+10°C	~ 180 minutes
+20°C	~ 90 minutes
+30°C	~ 45 minutes

Caution: expiry of potlife without visible change. (Above values at 75% r.h.)

Waiting Time / Overcoating

Before applying Sikafloor®-81 / -82 EpoCem® onto Sikafloor®-155 WN allow:

Substrate temperature	Waiting time	
	Minimum	Maximum
+10°C	12 hours	24 hours
+20°C	6 hours	12 hours
+30°C	4 hours	6 hours

At low temperatures and / or high humidity curing time will increase. Apply subsequent coats only to tack free primer.

For use as a tack coat when priming for Sikafloor®-Level®-25 without blinding with quartz sand, allow:

Substrate temperature	Waiting time	
	Minimum	Maximum
+10°C	5 hours	8 hours
+20°C	2.5 hours	4 hours
+30°C	1 hour	2 hours

For use as a primer for the Sikafloor®-Level® or Sikafloor®-PurCem® range with full blinding with sand, allow:

Substrate temperature	Waiting time	
	Minimum	Maximum
+10°C	24 hours	Not applicable
+20°C	12 hours	Not applicable
+30°C	6 hours	Not applicable

Notes on Application / Limitations

At low temperatures and/or high humidity, the curing time will increase.

Protect application from rain / water while reaction and curing takes place.

Dilution of the first coat with 10% of water by weight helps improve bond on dense and only slightly absorbent substrates, as well as reducing the consumption of material on excessively porous substrates. When applying a second coat, always use it undiluted.

Make sure to monitor and control the pot life of the mix as the end of pot life is not visibly noticeable. Discard any material at the pot life limits indicated for the existing application conditions!

Curing Details**Applied Product ready for use**

See the Overcoating table above.

Substrate temperature	Foot traffic
+10°C	~ 12 hours
+20°C	~ 6 hours
+30°C	~ 4 hours

No specific additional curing measures are required.

All times are approximate and will be affected by changing ambient and substrate 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 should refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.
EU Regulation 2004/42 VOC - Decopaint Directive	According to the EU-Directive 2004/42, the maximum allowed content of VOC Product category IIA / Cat J Type wb) is 140 / 140 g/l (Limits 2007 / 2010). The maximum content of Sikafloor®-155 WN , is < 140 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 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.



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