Construction

Sikafloor®-93 (EC) Primer

2-part epoxy primer

Product Description

Sikafloor®-93 (EC) Primer is two part, solvent free, low viscosity epoxy resin.

Uses

- For priming concrete substrates, cement screeds and epoxy mortars
- For normal to strong absorbent substrates
- Primer for the Sikafloor® flooring systems

Characteristics / Advantages

- Low viscosity
- Good penetration
- Excellent bond strength
- Solvent free
- Easy application
- Short waiting times

Product Data

Form

Appearance / Colours	Resin - Part A:	grey, liquid
	Hardener - Part B:	yellowish, liquid
Packaging	Part A:	3.2 kg x 2 container
	Part B:	0.8 kg x 2 container
	Part A+B:	4.0 kg x 2 ready to mix units

Storage

Storage Conditions/ Shelf-Life

12 months from date of production if stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between +5°C and +35°C.

Technical Data

Chemical Base	Epoxy	
Density	Part A:	~ 1.65 kg/l
	Part B:	~ 1.03 kg/l
	Mixed Resin:	~ 1.45 kg/l
	All density values at +27°C	
Solid Content	~ 100% (by volume) / ~ 100% (by weight)	

Mechanical / Physical Properties

Compressive Strength	~ 70 N/mm^2 (14 days / +27°C)	(According to IS 9162-1979)
Flexural Strength	~ 45 N/mm^2 (14 days / +27°C)	(According to IS 9162-1979)
Bond Strength	> 1.5 N/mm² (failure in concrete)	(According to ISO 4624)

Resistance

Thermal Resistance

Exposure*	Dry heat
Permanent	+50°C

*No simultaneous chemical and mechanical exposure and only in combination with Sikafloor® systems as a broadcast system with approx. 3 - 4 mm thickness

System Information

System Structure

Primer:
Low / medium porosity concrete: 1 x Sikafloor®-93 (EC) Primer
High porosity concrete: 2 x Sikafloor®-93 (EC) Primer

Application Details

Consumption / Dosage

Coating System	Product	Consumption
Priming	Sikafloor®-93 (EC) Primer	0.25 - 0.4 kg/m²

Note: These figures are theoretical and do not allow 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 20 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, scarifying or grinding 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	+8°C min. / +35°C max.
Ambient Temperature	+8°C min. / +35°C max.
Substrate Moisture Content	< 4% 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 = 4 : 1 (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®-93 (EC) Primer must be thoroughly mixed using a low speed electric 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% moisture content, Sikafloor® EpoCem® may be applied as a Temporary Moisture Barrier (TMB) system.

Primer:
Make sure that a continuous, pore free coat covers the substrate. If necessary, apply two priming coats. Apply Sikafloor®-93 (EC) Primer by brush, roller or squeegee.

Cleaning of Tools

Clean all tools and application equipment with Sika® Colma Cleaner or suitable thinner immediately after use. Hardened and/or cured material can only be removed mechanically.

Potlife

2 kg mass

Temperature	Time
+10°C	~ 50 minutes
+20°C	~ 25 minutes
+30°C	~ 15 minutes

Waiting Time / Overcoating

Before applying solvent free products on Sikafloor®-93 (EC) Primer allow:

Substrate temperature	Minimum	Maximum
+10°C	24 hours	4 days
+20°C	12 hours	2 days
+30°C	8 hours	24 hours

Before applying solvent containing products on Sikafloor®-93 (EC) Primer allow:

Substrate temperature	Minimum	Maximum
+10°C	24 hours	4 days
+20°C	12 hours	2 days
+30°C	8 hours	24 hours

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

Notes on Application / Limitations

Do not apply Sikafloor®-93 (EC) Primer on substrates with rising moisture.

Freshly applied Sikafloor®-93 (EC) Primer should be protected from damp, condensation and water for at least 24 hours.

Avoid puddles on the surface with the primer.

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.

Floor cracks and joints require pre-treatment. Treat as follows:

- Static: prefill and level with Sikadur® or Sikafloor® epoxy resin
- Dynamic: 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
+10°C	~ 24 hours	~ 6 days	~ 10 days
+20°C	~ 12 hours	~ 4 days	~ 7 days
+30°C	~ 8 hours	~ 2 days	~ 5 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.

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

Construction

Sika India Pvt. Ltd.
Commercial Complex II
620, Diamond Harbour Road
Kolkata, 700 034, India

Phone +91 33 2447 2448/2449
Telefax +91 33 2468 8688/2665
ind.sika.com
info.india@in.sika.com