BUILDING TRUST

PRODUCT DATA SHEET

Sikadur®-300

2-PART EPOXY IMPREGNATION RESIN

DESCRIPTION

Sikadur®-300 is a 2-component, epoxy based impregnating resin.

USES

Sikadur®-300 may only be used by experienced professionals.
Sikadur®-300 is used as
- Impregnating resin for SikaWrap® fabric reinforcement for the wet application method
- Primer resin for the wet application system

CHARACTERISTICS / ADVANTAGES

- Easy mix and application by trowel and impregnation roller
- Manufactured for manual or mechanical saturation methods
- Good adhesion to many substrates
- High mechanical properties
- Extra-long pot life

APPROVALS / CERTIFICATES

- Road and Bridges Research Institute (Poland): IBDiM No AT/2008-03-336/1.
- Adhesive for structural bonding tested according to EN 1504-4, provided with the CE-mark

PRODUCT INFORMATION

Composition	Epoxy resin	
Packaging	Component A:	22.305 kg
	Component B:	7.695 kg pails
Colour	Component A: light-yellow to amber liquid Component B: pale yellow to clear liquid Components A + B mixed: light-yellow to clear liquid	
Shelf life	24 months from date of production	
Storage conditions	Store in original, unopened, sealed and undamaged packaging in dry conditions at temperatures between +5 °C and +30 °C. Protect from direct sunlight.	
Density	1.16 kg/l (component A+B mixed) (at +23 °C)	
Viscosity	Shear rate: 50 /s	
	Temperature	**Viscosity**
	+15 °C	~2,000 mPas
	+23 °C	~700 mPas
	+40 °C	~200 mPas

TECHNICAL INFORMATION

Modulus of Elasticity in Flexure	~ 2,800 N/mm² (7 days at +23 °C)	(DIN EN 1465)
Tensile Strength	~ 45 N/mm² (7 days at +23°C)	(ISO 527)
Modulus of Elasticity in Tension	~ 3,500 N/mm² (7 days at +23 °C)	(ISO 527)
Elongation at Break	1.5 % (7 days at +23 °C)	(ISO 527)
Tensile Adhesion Strength	Concrete fracture (> 4 N/mm²) on sandblasted substrate	(EN ISO 4624)
Coefficient of Thermal Expansion	6.0 x 10^{-5} per °C (Temperature range −20 °C – +40 °C)	(EN 1770)

Glass Transition Temperature (EN 12614)

Curing time	Curing temperature	TG
30 days	+30 °C	+53 °C

Heat Deflection Temperature (ASTM D 648)

Curing time	Curing temperature	HDT
7 days	+15 °C	+43 °C
7 days	+23 °C	+49 °C
3 days	+40 °C	+60 °C
7 days	+40 °C	+66 °C

Resistant to continuous exposure +45 °C.

Service Temperature –40 °C to +45 °C

SYSTEMS

System Structure

Substrate primer - Sikadur®-330 / Sikadur®-300.
Impregnating/laminating resin - Sikadur®-300.
Structural strengthening fabric - SikaWrap® type to suit requirements.

APPLICATION INFORMATION

Mixing Ratio

Component A : component B = 100 : 34.5 by weight
When using bulk material the exact mixing ratio must be safeguarded by accurately weighing and dosing each component.

Consumption

See the "Method Statement for SikaWrap® manual wet application" Ref 850 41 03 and the "Method Statement for SikaWrap® saturator machine wet application" Ref 850 41 04.
Guide: 0.4–1.0 kg/m².

Ambient Air Temperature +15 °C min. / +40 °C max.

Dew Point

Beware of condensation.
Substrate temperature during application must be at least 3 °C above dew point.

Substrate Temperature +15 °C min. / +40 °C max.

Substrate Moisture Content < 4 % pbw

Pot Life (EN ISO 9514)

Temperature	Potlife	Open time
+15 °C	~6 hours	~3 hours
+23 °C	~4 hours	–
+40 °C	~90 minutes	~60 minutes

The potlife begins when the resin and hardener are mixed. It is shorter at high temperatures and longer at low temperatures. The greater the quantity mixed, the shorter the potlife. To obtain longer workability at high temperatures, the mixed adhesive may be divided into portions. Another method is to chill components A+B before mixing them (not below +5 °C).

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

The substrate must be sound and of sufficient tensile strength to provide a minimum pull off strength of 1.0 N/mm² or as per the requirements of the design specification.
See also the "Method Statement for SikaWrap® manual wet application" Ref 850 41 03 and the "Method Statement for SikaWrap® saturator machine wet application" Ref 850 41 04.

SUBSTRATE PREPARATION

See the "Method Statement for SikaWrap® manual wet application" Ref 850 41 03 and the "Method Statement for SikaWrap® saturator machine wet application" Ref 850 41 04.

MIXING

Pre-batched units:
Mix components A+B together for at least 3 minutes at low speed. Avoid aeration while mixing. Then, pour the whole mix into a clean container and stir again for approx. 1 more minute at low speed to keep air entrapment at a minimum.
Bulk packing, not pre-batched:
Add the components in the correct proportions into a suitable mixing pail and stir correctly using an electric low speed mixer as above for pre-batched units.

APPLICATION METHOD / TOOLS

See the "Method Statement for SikaWrap® manual wet application" Ref 850 41 03 and the "Method Statement for SikaWrap® saturator machine wet application" Ref 850 41 04.

CLEANING OF EQUIPMENT

Clean all equipment immediately with Sika® Colma Cleaner. Cured material can only be removed mechanically.

IMPORTANT CONSIDERATIONS

This product may only be used by experienced professionals.
Sikadur®-300 must be protected from rain for at least 24 hours after application. Ensure placement of fabric and laminating with roller takes place within open time.
For application in cold or hot conditions, pre-condition material for 24 hours in temperature controlled storage facilities to improve mixing, application and pot life limits.
For further information on over coating, number of layers or creep, please consult a structural engineer for calculations and see also the "Method Statement for SikaWrap® manual wet application" Ref 850 41 03 and the "Method Statement for SikaWrap® saturator machine wet application" Ref 850 41 04.
Sikadur® resins are formulated to have low creep under permanent loading. However due to the creep behaviour of all polymer materials under load, the long term structural design load must account for creep. Generally the long term structural design load must be lower than 20-25% of the failure load. Please consult a structural engineer for load calculations for your specific application.

BASIS OF PRODUCT DATA

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.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

LEGAL NOTES

Sika Egypt
1st Industrial Zone (A)
Section #10, Block 13035
El Obour City, Egypt
TEL: +202 44810580
FAX: +202 44810459
egy.sika.com