

## 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	

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Modulus of Elasticity in Flexure					
Wiodalas of Elasticity III Fickare	~ 2,800 N/mm²	(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	1.5 % (7 days at +23 °C)			
Tensile Adhesion Strength	Concrete fractu	re (> 4 N/mm²) on sa	ndblasted substrate	(EN ISO 4624)	
Coefficient of Thermal Expansion	$6.0 \times 10^{-5}$ per °C (Temperature range $-20$ °C $- +40$ °C)			(EN 1770	
Glass Transition Temperature	Curing time	Curing temperat- ure	TG	(EN 12614	
	30 days	+30 °C	+53 °C		
Heat Deflection Temperature	Curing time	Curing temperat- ure	HDT	(ASTM D 648)	
	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 co	ntinuous exposure +4	5 °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.				
A DDI ICATIONI INICODA A TI	ION				
APPLICATION INFORMAT					
Mixing Ratio	Component A : When using bul	component B = 100 : k material the exact r thing and dosing each	nixing ratio must be sa	feguarded by	
	Component A: When using bul accurately weig See the "Metho 850 41 03 and t	k material the exact rithing and dosing each od Statement for Sikal the "Method Stateme" Ref 850 41 04.	nixing ratio must be sa	lication" Ref	
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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/mm<sup>2</sup> 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 be-

haviour 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**

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.



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