BUILDING TRUST

PRODUCT DATA SHEET

Sikadur®-300

Epoxy impregnating / laminating resin for SikaWrap® structural strengthening fabrics

DESCRIPTION

Sikadur®-300 is a 2-part , epoxy based impregnating / laminating resin for SikaWrap® structural strengthening fabrics.

USES

Sikadur®-300 may only be used by experienced professionals.

- As an impregnating / laminating resin for the SikaWrap® fabric reinforcement wet application method
- As a substrate primer for the wet application method

Please note:

- The Product may only be used by experienced professionals.

CHARACTERISTICS / ADVANTAGES

- Easy to mix
- Application by impregnation roller
- Formulated for manual or mechanical saturation methods
- Good adhesion to many substrates
- High mechanical properties
- Extra-long pot life

ENVIRONMENTAL INFORMATION

- Conforms with LEED v4 MR credit: Building product disclosure and optimization — Environmental Product Declarations (option 1)
- Conforms with LEED v4 MR credit: Building product disclosure and optimization — Material ingredients (option 2)
- Environmental Product Declaration (EPD) in accordance with EN 15804. EPD independently verified by Institut für Bauen und Umwelt e.V. (IBU)

APPROVALS / STANDARDS

- Czech Republic: Technical Approval, ITC, Nr. STO-AO 224-1012/2020
- Technical Approval, CSTB, Avis Technique 3.3/19-1005_V1
- Certificate of Technical Valuation, CSLLPP, No. 209/2019
- National Technical Assessment Sika CarboDur® kit, ITB, No. ITB-KOT-2019/0415 v.1
- National Technical Assessment Sika CarboDur® kit, ITB, Approval No. ITB-KOT-2018/0414 v.2
- Technical Approval Sika CarboDur, Nr. IBDiM-KOT-2019-0361 v.2
- Technical Agreement, CTPC, No. 016-011401-2019
- Slovakia: Technical Assessment, TSUS, No. SK04-ZSV-2669
- Technical Approval, DIT, No. N604R/19
- Test Report, Ministry of Regional Development (Ukraine), No. 3HT–219–2167.13-001

PRODUCT INFORMATION

Product Declaration	EN 1504-4: Structural bonding	
Chemical Base	Epoxy resin	
Packaging	Part A	14.88 kg pre-batched unit
	Part B	5.12 kg pre-batched unit
	Refer to current price list for packaging variations	
Shelf Life	24 months from date of production	
Storage Conditions	The product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +30 °C. Always refer to packaging.	
Colour	Part A	amber / liquid
	Part B	pale yellow / liquid
	Parts A + B mixed	light-yellow / liquid
Density	Mixed resin ~1.16 kg/l Value at +23 °C.	
Viscosity	Shear rate: 50 /s	
	Temperature	**Viscosity**
	+15 °C	~2000 mPa·s
	+23 °C	~700 mPa·s
	+40 °C	~200 mPa·s

TECHNICAL INFORMATION

Modulus of Elasticity in Flexure	~2800 N/mm² (7 days at +23 °C)	(DIN EN 1465)
Tensile Strength	~45 N/mm² (7 days at +23 °C)	(EN ISO 527-2)
Modulus of Elasticity in Tension	~3500 N/mm² (7 days at +23 °C)	(EN ISO 527-2)
Elongation at Break	1.5 % (7 days at +23 °C)	(EN ISO 527-2)
Tensile Adhesion Strength	Concrete fracture (> 4 N/mm²) on sandblasted substrate	(EN ISO 4624)
Coefficient of Thermal Expansion	~6.0×10^{-5} (± 0.2×10^{-5}) 1/K (linear expansion between -20 °C and +40 °C)	(EN 1770)
Service Temperature	Maximum	+45 °C
	Minimum	–40 °C

Glass Transition Temperature (EN 12614)

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

Heat Deflection Temperature (ASTM D648)

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.

SYSTEM INFORMATION

System Structure

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

APPLICATION INFORMATION

Mixing Ratio

Part A : Part B = 100 : 34,5 by weight

Consumption

Guide: ~0.6–1.0 kg/m²
Also refer to:

- Method Statement: SikaWrap® manual wet application - Ref 850 41 03
- Method Statement: SikaWrap® saturator machine wet application - Ref 850 41 04

Product Temperature

Maximum	+40 °C
Minimum	+15 °C

Ambient Air Temperature

Maximum	+40 °C
Minimum	+15 °C

Dew Point

Beware of condensation.
The substrate and uncured applied resin must be at least +3 °C above dew point to reduce the risk of condensation or blooming on the resin surface.

Substrate Temperature

Maximum	+40 °C
Minimum	+15 °C

Substrate Moisture Content

≤ 4 % parts by weight
The following test methods can be used: Sika®-Tramex meter, CM-measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet).

Pot Life (ISO 9514)

Temperature	Pot life	Open time
+15 °C	~3 hours	~6 hours
+23 °C	-	~4 hours
+40 °C	~60 minutes	~90 minutes

The pot life begins when Parts A+B are mixed. It is shorter at high temperatures and longer at low temperatures. The greater the quantity mixed, the shorter the pot life. To obtain longer workability at high temperatures, the mixed adhesive may be divided into smaller quantities. Another method is to chill Parts A+B before mixing (not below +5 °C).

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.

FURTHER DOCUMENTS

Reference must be made to the Sika® Method Statements:

- Method Statement: SikaWrap® manual wet applica-

tion - Ref 850 41 03
- Method Statement: SikaWrap® saturator machine wet application - Ref 850 41 04

LIMITATIONS

- Sikadur® resins are formulated to have low creep under permanent loading. However, due to the creep behavior 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. A structural engineer must be consulted for load calculations for the specific application.
- Protect 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.

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.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

Substrates must be structurally sound and of sufficient tensile strength to provide a minimum tensile strength of 1.0 N/mm² or as required in the design specification.
Reference must be made to the Sika® Method Statements:
- Method Statement: SikaWrap® manual wet application - Ref 850 41 03
- Method Statement: SikaWrap® saturator machine wet application - Ref 850 41 04

SUBSTRATE PREPARATION

Reference must be made to the Sika® Method Statements:
- Method Statement: SikaWrap® manual wet application - Ref 850 41 03
- Method Statement: SikaWrap® saturator machine wet application - Ref 850 41 04

MIXING

PRE-BATCHED UNIT
1. Mix only the quantity which can be used within its pot life
2. Prior to mixing all parts, mix part A (resin) briefly using a mixing spindle attached to a slow speed electric mixer (max. 300 rpm).
3. Add part B (hardener) to part A and mix parts A+B continuously for at least 3 minutes until a uniformly coloured smooth consistency mix has been achieved.
4. To ensure thorough mixing pour materials into a clean container and mix again for approximately 1 minute. Over mixing must be avoided to minimise air entrainment. Mix full units only. Mixing time for

A+B = 4.0 minutes.

BULK CONTAINER

1. Mix only the quantity which can be used within its pot life.
2. Prior to mixing all parts, mix part A (resin) briefly using a mixing spindle attached to a slow speed electric mixer (max. 300 rpm).
3. Add both parts in the correct proportion into a suitable clean, dry container and mix parts A+B continuously for at least 3 minutes until a uniformly coloured smooth consistency mix has been achieved.
4. To ensure thorough mixing pour materials into a clean container and mix again for approximately 1 minute. Over mixing must be avoided to minimise air entrainment. Mixing time for A+B = 4.0 minutes.

APPLICATION

Reference must be made to the Sika® Method Statements:

- Method Statement: SikaWrap® manual wet application - Ref 850 41 03
- Method Statement: SikaWrap® saturator machine wet application - Ref 850 41 04

CLEANING OF TOOLS

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

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.

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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