

# PRODUCT DATA SHEET

## Sikadur<sup>®</sup>-301

### HIGH MODULUS AND HIGH STRENGTH IMPREGNATION RESIN

#### PRODUCT DESCRIPTION

Sikadur<sup>®</sup>-301 is a two component, 100 % solid, high modulus, high strength and moisture resistant epoxy adhesive.

#### USES

Sikadur<sup>®</sup>-301 may only be used by experienced professionals.  
As impregnation resin of SikaWrap fabrics for structural reinforcement.

#### CHARACTERISTICS / ADVANTAGES

- Medium pot life.
- Easy to mix
- Resistant to moisture before, during and after curing
- High strength and high modulus adhesive
- Excellent adhesion to concrete, masonry, metals, wood and most building materials
- Fully compatible and developed specifically for SikaWrap systems
- High resistance to deformation under sustained load
- High resistance to abrasion and impacts
- Solvent free

#### PRODUCT INFORMATION

<b>Packaging</b>	4 gal. unit (15.14 L)
<b>Color</b>	Light gray
<b>Shelf Life</b>	24 months from its date of production
<b>Storage Conditions</b>	Store in its original container, tightly closed, fresh and indoor. Transport with normal precautions for chemicals
<b>Viscosity</b>	Approx. 2,700 cps.

#### TECHNICAL INFORMATION

<b>Compressive Strength</b>	1 day	4,000 psi (27.6 MPa)	(ASTM D-695)
	3 days	11,900 psi (82.1 MPa)	73 °F (23 °C)
	7 days	13,900 psi (96.0 MPa)	50 % R.H.
<b>Modulus of Elasticity in Compression</b>	250 ksi (1,725 MPa) (7 days)		(ASTM D-695) 73 °F (23 °C) 50 % R.H.

<b>Flexural Strength</b>	13,000 psi (90.0 MPa) (7 days)	(ASTM D-790) 73 °F (23 °C) 50 % R.H.
<b>Modulus of Elasticity in Flexure</b>	500 ksi (3,448 MPa) (7 days)	(ASTM D-790) 73 °F (23 °C) 50 % R.H.
<b>Tensile Strength</b>	8,000 psi (52.0 MPa) (7 days)	(ASTM D-638) 73 °F (23 °C) 50 % R.H.
<b>Tensile Modulus of Elasticity</b>	290 ksi (2,000 MPa) (7 days)	(ASTM D-638) 73 °F (23 °C) 50 % R.H.
<b>Elongation at Break</b>	3.5 % (7 days)	(ASTM D-638) 73 °F (23 °C) 50 % R.H.
<b>Glass Transition Temperature</b>	120 °F (49 °C) (7 days)	(T <sub>g</sub> )
<b>Heat Deflection Temperature</b>	117 °F (47 °C) (7 days)	(ASTM D-648)
<b>Mixing Ratio</b>	Component 'A': Component 'B' = 3:1 by volume.	
<b>Coverage</b>	As a sealer: Approx. 75 ft <sup>2</sup> /gal. (1.84 m <sup>2</sup> /liter). As the impregnation resin: Approx. 50 ft <sup>2</sup> /gal. (1.23 m <sup>2</sup> /liter). depending on the type of SikaWrap.	
<b>Pot Life</b>	Approx. 40 minutes (1 gal., 3.8 L volume).	
<b>Contact Time</b>	Approx. 90 minutes	

## APPLICATION INSTRUCTIONS

### SUBSTRATE PREPARATION

The concrete surface should be prepared to a minimum concrete surface profile (CSP) 3 as defined by the ICRI-surface-profile chips. Localized out-of-plane variations, including form lines, should not exceed 1/32 in. (1 mm). Substrate must be clean, sound, and free of surface moisture. Remove dust, laitance, grease, oils, curing compounds, waxes, impregnations, foreign particles, coatings and disintegrated materials by mechanical means (i.e. sandblasting). For best results, substrate should be dry. However, a saturated surface dry condition is acceptable.

### MIXING

Pre-mix 'A' component, ('B' component does not require mixing). Mix entire unit, do not batch. Pour contents of Part 'B' into Part 'A'. Mix thoroughly for 5 minutes using a paddle style mixer on low speed (400-600 rpm) rotary drill until uniformly blended.

### APPLICATION METHOD / TOOLS

**As a sealer:** Apply mixed Sikadur® 301 epoxy to a properly prepared substrate using a brush or roller. Sikadur® 301 should be supplied at a sufficient rate to fully saturate the substrate. Coverage rates are based on

a substrate with normal porosity.

**As an impregnating resin:** Saturate SikaWrap® fabrics until fibers are completely wet-out. For vertical and overhead installations, Sikadur® 330 may be used first to prime/tack the substrate prior to installing the fabric. Sikadur® 301 can be applied in either Dry Lay-Up or Wet Lay-Up fabric installation procedures. Consult the SikaWrap® fabric technical data sheet for more information. If used as an impregnating resin in the Wet Lay-Up procedure, Sikadur® 301 should be manually applied onto both sides of the fabric using a brush or roller. After saturating, excess resin should be removed from the wet out fabric using a squeegee.

**Due to the mixed viscosity of Sikadur® 301, an automated fabric-saturating device should not be used. If automated fabric-saturating device is intended for use, consult the technical data sheets for appropriate impregnating resins (i.e. Sikadur® 300 or Sikadur® Hex 300).**

### LIMITATIONS

- Minimum substrate temperature and ambient 40 °F (4 °C). Maximum substrate temperature and ambient 95 °F (35 °C).
- Do not dilute with solvents.
- It is a vapor barrier once healing.
- The minimum concrete age should be 21–28 days depending on curing and drying conditions.

- At low temperatures and / or high relative humidity, a slight greasy residue can be formed on the surface of Sikadur®-301. This residue must be removed if another layer of SikaWrap fabric is to be applied to the already healed Sikadur®-301. This residue should be removed to ensure adequate adhesion. The residue can be removed with a cloth dampened with solvent or with water and detergent. In both cases, the surface should be wiped clean with a dry cloth prior to placement of the next layer of fabric or coating.
- Not an aesthetic product. Color may alter due to variations in lighting and/or UV exposure.

## BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

## OTHER RESTRICTIONS

See Legal Disclaimer.

## ENVIRONMENTAL, HEALTH AND SAFETY

### **PRECAUTION: Component 'A' - IRRITANT, SENSITIZER -**

Contains Epoxy Resin, and a mixture of Aromatic Hydrocarbon, Amorphous Silica, and Titanium Dioxide. Irritating to eyes. May cause respiratory and skin irritation.

Prolonged or repeated skin contact may cause an allergic reaction. A deliberate concentration of vapors that can be inhaled is dangerous and can be fatal. Avoid contact with eyes and skin. Harmful if swallowed. Use only with adequate ventilation. Safety goggles and chemical resistant gloves are recommended. If there is no adequate ventilation use an approved respirator.

Remove contaminated clothing and wash before reuse.

### **Component 'B' - CORROSIVE, SENSITIZER, IRRITANT -**

Contains Amines. Contact with skin and eyes causes severe burns. Causes eye and skin irritation. Vapors may cause irritation of the respiratory tract.

Prolonged and/or repeated contact may cause an allergic reaction. Harmful if swallowed. Avoid contact with skin and eyes. Use only with adequate ventilation. Safety goggles and chemically resistant gloves are recommended. If there is no adequate ventilation use an approved respirator. Remove contaminated clothing and wash before reuse.

### **First Aid for Eyes:**

Hold eyelids wash with plenty of water for 15 minutes.

Skin: Remove contaminated clothing. Wash with soap and water for 15 minutes.

Inhalation: Take the person to fresh air.

Ingestion: Do not induce vomiting.

In all cases, contact a doctor if symptoms persist.

Keep out of reach of children.

For further information and advice regarding

transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

## LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at [usa.sika.com](http://usa.sika.com) or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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