**Product Data Sheet**
Edition 10.15.2014
Sikadur® 301

**Sikadur® 301**
High-modulus, high-strength, impregnating resin

<table>
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<tr>
<th>Description</th>
<th>Sikadur® 301 is a two-component 100% solids, moisture-tolerant, high strength, high modulus structural epoxy adhesive.</th>
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<td>Where to Use</td>
<td>For use as a priming sealer and/or an encapsulating resin with the SikaWrap® Structural Strengthening System fabrics.</td>
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| Advantages  |  ■ Medium pot life.  
           ■ Easy to mix.  
           ■ Tolerant of moisture before, during and after cure.  
           ■ High strength, high modulus adhesive.  
           ■ Excellent adhesion to concrete, masonry, metals, wood and most structural materials.  
           ■ Fully compatible and developed specifically for the SikaWrap® Systems.  
           ■ High temperature resistance.  
           ■ High abrasion and shock resistance.  
           ■ Solvent-free, VOC compliant. |
| Coverage    | As a sealer: Approx. 75 ft²/gal. (1.84 m²/liter). As an impregnating resin: Approx. 50 ft²/gal. (1.23 m²/liter). |
| Packaging   | 4 gallon unit (15.14 liters). |

**Typical Data (Material and curing conditions @ 73°F (23°C) and 50% R.H.)**

| Shelf Life | 2 years in original, unopened container. |
| Storage Conditions | Store dry at 40°-95°F (4°-35°C). Condition material to 65°-75°F (18°-24°C) before using. |
| Color | Light gray |
| Mixing Ratio | Component ‘A’: Component ‘B’ = 3 : 1 by volume |
| Viscosity (mixed) | Approx. 2,700 cps |
| Pot Life | Approx. 40 minutes (1 gallon volume) |
| Contact Time | Approx. 90 minutes |
| Heat Deflection Temperature (ASTM D-648) 7 day | 117°F (47°C) |
| Glass Transition Temperature (Tg) 7 day | 120°F (49°C) |
| Mechanical Properties | |
| Tensile Properties (ASTM D-638) 7 day | Tensile Strength 8,000 psi (52.0 MPa)  
Modulus of Elasticity 290 ksi (2,000 MPa)  
Elongation at break 3.5% |
| Flexural Properties (ASTM D-790) 7 day | Flexural Strength 13,000 psi (90.0 MPa)  
Tangent Modulus 500 ksi (3,448 MPa)  
Strain at Yield 3.0% |
| Compressive Properties (ASTM D-695) | Compressive Strength  
1 day 4,000 psi (27.6 MPa)  
3 day 11,900 psi (82.1 MPa)  
7 day 13,900 psi (96.0 MPa)  
Compressive Modulus 250 ksi (1,725 MPa) |

RESULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIXING METHODS AND EQUIPMENT, TEMPERATURE, APPLICATION METHODS, TEST METHODS, ACTUAL SITE CONDITIONS AND CURING CONDITIONS.

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How to Use

Surface 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

As a sealer: Apply mixed Sikadur® 301 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 Sikadur® 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 and ambient temperature 40°F (4°C). Maximum substrate and ambient temperature 95°F (35°C).
- Do not thin with solvents.
- Material is a vapor barrier after cure.
- Minimum age of concrete must be 21-28 days depending on curing and drying conditions.
- At low temperatures and/or high relative humidity, a slight oily residue (blush) may form on the surface of the cured Sikadur® 301 epoxy. If an additional layer of fabric or a coating is to be applied onto the cured epoxy, this residue must first be removed to ensure adequate bond. The residue can be removed with either a solvent wipe or with water and detergent. In both cases, the surface should be wiped dry prior to application of the next layer of fabric or coating.
- Not an aesthetic product. Color may alter due to variations in lighting and/or UV exposure.

PREVIOUS PAGE FOR ADDITIONAL CONTENT.