Sikadur® 55 SLV
Super low-viscosity, moisture-tolerant epoxy resin, crack healer/penetrating sealer

Description
Sikadur® 55 SLV is a 2-component, 100% solids, moisture-tolerant, epoxy crack healer / penetrating sealer, having a fast tack-free time to minimize downtime. It is a super low-viscosity, high-strength adhesive formulated specifically for sealing both dry and damp, existing, non-dynamic cracks. It conforms to the current ASTM C-881, Types I and II, Grade-1, Class-C* and AASHTO M-235 specifications. * except for gel time

Where to Use
- Sikadur® 55 SLV seals cracked concrete.
- For interior slabs and exterior above-grade slabs.
- For elevated horizontal decks, parking garages and other structures exposed to foot and pneumatic tire traffic.

Advantages
- Super low viscosity/low surface tension for excellent penetration into existing cracks.
- Seals existing cracks by gravity down to 2 mils (0.002" / 0.05 mm) in width.
- Prolongs life of cracked concrete.
- Penetrates and seals surface from water absorption, chloride-ion intrusion, and chemical attack (patent pending technology).
- Improves concrete surface by reducing water and chloride intrusion.
- Can be open to traffic in 6 hours at 73°F (23°C).
- High bond strength, even in damp cracks.
- U.S. Patent No. (pending) for ultra low viscosity healer/sealer to strengthen cracked concrete.

Coverage
1 gal. (3.8 liters) yields 231 cu. in. (3,785 cm³)
Typical coverage is 150-175 ft²/gal. (3.7-4.3 m²/L) for surface sealing. Coverage varies with porosity and surface profile of substrate. Higher porosity concrete will reduce coverage. For crack healing, follow Application instructions and allow to pond over cracks.

Packaging
3 gal. (11.35 l) unit = 'A' = 2 gal. (7.6 l) + 'B' = 1 gal. (3.8 l)

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Temperature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shelf Life</td>
<td></td>
<td>2 years in original, unopened containers</td>
</tr>
<tr>
<td>Storage Conditions</td>
<td></td>
<td>Store dry at 40°-95°F (4°-35°C). Condition material to 65°-75°F (18°-24°C) before using.</td>
</tr>
<tr>
<td>Color</td>
<td></td>
<td>Clear, amber</td>
</tr>
<tr>
<td>Mixing Ratio</td>
<td>Component 'A' : Component 'B' = 2:1 by volume</td>
<td></td>
</tr>
<tr>
<td>Viscosity (Mixed)</td>
<td>Approximately 105 cps</td>
<td></td>
</tr>
<tr>
<td>Pot Life</td>
<td>Approximately 20 minutes</td>
<td></td>
</tr>
<tr>
<td>Tack-Free Time</td>
<td>40°F (4°C)*</td>
<td>11 hrs.</td>
</tr>
<tr>
<td></td>
<td>60°F (15°C)*</td>
<td>11 hrs.</td>
</tr>
<tr>
<td></td>
<td>73°F (23°C)*</td>
<td>6 hrs.</td>
</tr>
<tr>
<td></td>
<td>90°F (32°C)*</td>
<td>2.5 hrs.</td>
</tr>
<tr>
<td>Tensile Properties (ASTM D-638)</td>
<td>73°F (23°C)</td>
<td>Tensile Strength 7,100 psi (48.9 MPa) Elongation at break 10%</td>
</tr>
<tr>
<td>Bond Strength (ASTM C-882)</td>
<td>2 day (moist cure)</td>
<td>2,500 psi (17.2 MPa)</td>
</tr>
<tr>
<td></td>
<td>14 day (moist cure)</td>
<td>2,500 psi (17.2 MPa)</td>
</tr>
<tr>
<td>Hardened Concrete to Steel</td>
<td>2 day (moist cure)</td>
<td>1,500 psi (10.3 MPa)</td>
</tr>
<tr>
<td></td>
<td>14 day (moist cure)</td>
<td>1,600 psi (11.0 MPa)</td>
</tr>
<tr>
<td>Flexural Properties (ASTM D-790)</td>
<td>7 day</td>
<td>Flexural Strength 8,500 psi (58.6 MPa) Tangent Modulus of Elasticity 3.2 x 10⁵ psi (2,206 MPa)</td>
</tr>
<tr>
<td>Shear Strength (ASTM D-732)</td>
<td>7 day</td>
<td>5,800 psi (40.0 MPa)</td>
</tr>
<tr>
<td>Heat Deflection Temperature (ASTM D-648)</td>
<td>7 day</td>
<td>[fiber stress loading = 264 psi (1.8 MPa)] 110°F (43°C)</td>
</tr>
<tr>
<td>Water Absorption (ASTM D-570)</td>
<td>7 day</td>
<td>(24 hour immersion) 0.60%</td>
</tr>
</tbody>
</table>

PRIOR TO EACH USE OF ANY SIKA PRODUCT, THE USER MUST ALWAYS READ AND FOLLOW THE WARNINGS AND INSTRUCTIONS ON THE PRODUCT’S MOST CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET WHICH ARE AVAILABLE ONLINE AT HTTP://USA.SIKA.COM/ OR BY CALLING SIKA’S TECHNICAL SERVICE DEPARTMENT AT 800.933.7452 NOTHING CONTAINED IN ANY SIKA 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 DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET PRIOR TO PRODUCT USE.
How to Use

Surface Preparation

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. shot blasting, sandblasting, etc.). For best results, substrate should be dry. Surfaces prepared by Low Pressure Water Cleaning or High Pressure Water Jetting methods should be allowed to dry for 24 hrs. minimum at 73°F (23°C).

Mixing

Mix 1 part Component ‘B’ to 2 parts Component ‘A’ by volume into a clean pail. Mix thoroughly for 3 minutes with Sika paddle or jiffy mixer on a low-speed (400-800 rpm) drill until uniformly blended. Mix only that quantity which can be used within its pot life.

Application

To gravity feed cracks: Sikadur® 55 SLV is applied to horizontal surfaces by flat squeegee or broom. Spread material over area and allow to pond over cracks. Let material penetrate into cracks and substrate. Remove excess epoxy with roller leaving no visible surface film. For cracks greater than 1/8 in. (3 mm) wide, fill crack with oven-dried sand before applying Sikadur® 55 SLV. Seal cracks from underside, when accessible, to prevent leakage.

A second treatment may be required on very porous substrates. Apply second treatment before broadcasting After treatment, wait a minimum of 20-30 minutes at 73°F (23°C) before broadcasting sand. Cover with broadcast of an oven-dried 20/40 silica sand or similar sand. Distribute evenly over the surface to excess at a rate of 30-40 lbs./100 sq. ft. Allow to cure 6 hours minimum at 73°F (23°C). Remove any loose sand and open to traffic once epoxy has cured. Consult Sika Technical Service at 1-800-933-SIKA for additional information.

To pressure inject cracks: Use automated injection equipment. Set appropriate injection ports. Seal ports and cracks with Sikadur® 31, Hi-Mod Gel, Sikadur® Injection Gel or Sikadur® AnchorFix 2/Sikadur® AnchorFix 500. When the epoxy adhesive has cured, inject Sikadur® 55 SLV with steady pressure. Consult Technical Service at 1-800-933-SIKA for additional information. Mock ups to ascertain penetration on job site conditions is strongly recommended. Actual penetration should be verified by core testing.

Limitations

- Do not thin. Addition of solvents will prevent proper cure.
- Material is a vapor barrier after cure.
- Do not apply if rain is imminent. Water exposure or humidity will affect surface appearance and may cause surface whitening.
- Not an aesthetic product. Color may alter due to variations in lighting and/or UV exposure.
- Sealed concrete surface may appear blotchy due to differential absorption.
- Allow sufficient time for the substrate to dry after rain or other inclement conditions.
- Application temperature of substrate must be minimum 5°F (3°C) above the dew point.
- Minimum ambient and substrate temperature 40°F (4°C). Maximum application temperature 95°F (35°C).
- Do not inject cracks greater than 1/4 in. (6 mm) Consult Technical Service at 1-800-933-SIKA.
- Minimum age of concrete is 21-28 days, depending on curing and drying conditions.
- Not designed to seal or inject cracks under hydrostatic pressure during application.
- Penetration results will vary. Factors that may impede penetration include, but are not limited to, temperature (ambient and material), geometry of crack, concrete porosity, and dirt inside cracks.
- Product is not appropriate for use in dynamic cracks.

Compressive Properties (ASTM D-695)

<table>
<thead>
<tr>
<th>Compressive Strength, psi (MPa)</th>
<th>40°F (4°C)</th>
<th>60°F (15°C)</th>
<th>73°F (23°C)</th>
<th>90°F (32°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 day</td>
<td>320 (2.2)</td>
<td>1,100 (7.6)</td>
<td>4,800 (33.1)</td>
<td></td>
</tr>
<tr>
<td>3 day</td>
<td>2,000 (13.8)</td>
<td>6,500 (44.8)</td>
<td>8,300 (57.2)</td>
<td>8,000 (55.2)</td>
</tr>
<tr>
<td>7 day</td>
<td>7,800 (53.8)</td>
<td>10,400 (71.7)</td>
<td>10,900 (75.1)</td>
<td>8,300 (57.2)</td>
</tr>
<tr>
<td>14 day</td>
<td>9,600 (68.2)</td>
<td>11,000 (75.8)</td>
<td>11,800 (81.4)</td>
<td>10,000 (68.9)</td>
</tr>
<tr>
<td>28 day</td>
<td>11,700 (80.7)</td>
<td>12,000 (82.7)</td>
<td>12,000 (82.7)</td>
<td>10,000 (68.9)</td>
</tr>
</tbody>
</table>

Compressive Modulus

| 7 day | 3.0 x 10^6 psi (208 MPa) |

Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Product Data Sheet, Product Label and Safety Data Sheet which are available online at http://usa.sika.com or by calling Sika's Technical Service Department at 800.933.7452 Nothing contained in any Sika 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 Data Sheet, Product Label and Safety Data Sheet prior to product use.

Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Product Data Sheet, product label and Safety Data Sheet which are available online at http://usa.sika.com or by calling Sika's Technical Service Department at 800.933.7452. Nothing contained in any Sika 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 Data Sheet, product label and Safety Data Sheet prior to product use.

Sika warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer’s sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Sika shall not be liable for damages or losses incurred in connection with or caused by the use of this product. Sika shall not be liable for any special, indirect or consequential damages or losses incurred by the user of this product or any other manufacturer or supplier, or any other person or entity. USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS. SALE OF SIKA PRODUCTS ARE SUBJECT SIKA’S TERMS AND CONDITIONS OF SALE AVAILABLE AT HTTP://USA.SIKA.COM OR BY CALLING 201-933-8800.

Visit our website at usa.sika.com – 1-800-933-SIKA NATIONWIDE

Regional Information and Sales Centers. For the location of your nearest Sika sales office, contact your regional center.

Sika Corporation
201 Polito Avenue
Lyndhurst, NJ 07071
Phone: 800-933-7452
Fax: 201-933-6225

Sika Canada Inc.
601 Delmar Avenue
Pointe Claire
Quebec H9R 4A9
Phone: 514-697-2610
Fax: 514-694-2792

Sika Mexicana S.A. de C.V.
Carretera Libre Celaya Km. 8.5
Fracc. Industrial Balvanera
Corregidora, Queretaro
C.P. 76920
Phone: 52 442 2385600
Fax: 52 442 225637

Sika and Sikadur are registered trademarks. Printed in Canada.