

Sikadur® Crack Fix

Low-viscosity, high-strength epoxy sealing system

Construction

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| Description | Sikadur Crack Fix is a 2-component, 100% solids, moisture-tolerant, low-viscosity, high-strength, multi-purpose, epoxy resin adhesive. It conforms to the current ASTM C-881 and AASHTO M-235 specifications. |
| Where to Use | <ul style="list-style-type: none"> ■ Gravity-feed of cracks in horizontal concrete and masonry. ■ Low pressure injection of cracks in structural concrete, masonry, wood, etc. ■ Grouting bolts, dowels, pins, etc. into horizontal concrete surfaces. |
| Advantages | <ul style="list-style-type: none"> ■ Formulation identical to popular, high strength adhesive Sikadur 35, Hi-Mod LV. ■ Five times stronger than concrete. ■ Convenient easy to use, single tube cartridge - fits standard caulk guns. ■ Deep, penetrating and tenacious bonding of cracks in structural concrete. ■ No mess - self-mixing. |
| Coverage | 1 cartridge yields approximately 10.7-11.0 cu. in. (175-180 ml) of usable epoxy resin. |
| Packaging | Carton contains 12 single caulk tube-style cartridges; each cartridge packaged with 2 static mixers and 2 flow restrictors. |

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

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| Shelf Life | 2 years in original, unopened containers. | | |
| Storage Conditions | Store dry at 40°-95°F (4°-35°C). Condition material to 60°-75°F (15°-24°C) before using. | | |
| Color | Clear, amber. | | |
| Mixing Ratio | Component A : Component B = 2:1 by volume. | | |
| Viscosity (Mixed) | Approximately 375 cps. | | |
| Pot Life | Approximately 25 minutes. (60 gram mass) | | |
| Tack Free Time | 40°F (4°C)* | 73°F (23°C)* | 90°F (32°C)* |
| (3-5 mils) | 14-16 hrs. | 3-3.5 hrs. | 1.5-2 hrs. |
| Tensile Properties (ASTM D-638) | | | |
| 7 day | Tensile Strength | 7,000 psi (48.3 MPa) | |
| | Elongation at Break | 6.9% | |
| Flexural Properties (ASTM D-790) | | | |
| 14 day | Flexural Strength (Modulus of Rupture) | 11,000 psi (75.9 MPa) | |
| | Tangent Modulus of Elasticity in Bending | 3.1 x 10 ⁵ psi (2,139 MPa) | |
| Shear Strength (ASTM D-732) | | | |
| 14 day | Shear Strength | 4,800 psi (33.1 MPa) | |
| Heat Deflection Temperature (ASTM D-648) | | | |
| 7 day | [fiber stress loading = 264 psi (1.8 MPa)] | 121°F (49°C) | |
| Bond Strength (ASTM C-882): Hardened concrete to hardened concrete | | | |
| 2 day | (moist cure) Bond Strength | 1,300 psi (9.0 MPa) | |
| 14 day | (moist cure) Bond Strength | 1,350 psi (9.3 MPa) | |
| Water Absorption (ASTM D-570) | | | |
| | 7 day (24 hour immersion) | 0.27% | |
| Compressive Properties (ASTM D-695) | | | |
| Compressive Strength, psi (MPa) | | | |
| | 40°F (4°C)* | 73°F (23°C)* | 90°F (32°C)* |
| 4 hour | - | - | - |
| 8 hour | - | 180 (1.2) | 3,200 (22.1) |
| 16 hour | - | 4,500 (31.1) | 6,300 (43.5) |
| 1 day | - | 6,000 (41.4) | 9,100 (62.8) |
| 3 day | 4,000 (27.6) | 9,000 (62.1) | 10,500 (72.5) |
| 7 day | 6,800 (46.9) | 11,000 (75.9) | 10,500 (72.5) |
| 14 day | 10,300 (71.1) | 12,000 (82.8) | 10,500 (72.5) |
| 28 day | 12,400 (85.6) | 13,000 (89.7) | 10,500 (72.5) |
| Compressive Modulus | | | |
| | 7 day | 2.9 X 10 ⁵ psi (2,000 MPa) | |

*Material cured and tested at the temperatures indicated.



How to Use

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| Surface Preparation | Surface must be clean, dry and sound. Remove dust from crack by brushing or by blowing clean with oil-free compressed air. |
| Cartridge Set-Up | Remove twist-cap and port plug from top of cartridge. Press one of enclosed "flow restrictors" into opening. Insert one of the enclosed static mixers through twist-cap and attach to threading. Insert Sikadur Crack Fix cartridge into good quality caulking gun. Point upward during initial squeeze of gun's trigger to purge any entrapped air. As mixed resin approaches end of mixer, discard rest of initial squeeze and portion of next squeeze to ensure uniform blend of adhesive components. |
| Application | <p>To gravity feed cracks - Blow vee-notched crack clean with oil-free compressed air. Dispense Sikadur Crack Fix slowly into vee-notched crack. Continue placement until completely filled. Seal underside of slab prior to filling if cracks reflect through.</p> <p>To inject cracks - Set appropriate injection ports. Seal ports and surface of crack with Sikadur Anchor Fix-3, Sikadur 31, Hi-Mod Gel or Sikadur 33. When the epoxy adhesive seal has cured, inject Sikadur Crack Fix with slow steady pressure. Consult Technical Service for additional information.</p> |
| Limitations | <ul style="list-style-type: none"> ■ Minimum substrate and ambient temperature 40°F (4°C). Maximum substrate temperature is 95°F (35°C). ■ Minimum age of concrete must be 21-28 days, depending on curing and drying conditions. ■ Do not apply over wet, glistening surface. ■ Not for injection of cracks subjected to osmotic or hydrostatic pressure during application. ■ Do not inject cracks greater than ¼ in. (6 mm) Consult Technical Service at 1-800-933-SIKA. ■ Not an aesthetic product. Color may alter due to variations in lighting and/or UV exposure. |
| Warning | <p>Component 'A' – IRRITANT, SENSITIZER – Avoid direct contact. Contains modified epoxy resin (CAS 25068-38-6), aromatic hydrocarbon blend (mixture) and Nonyl Phenol (CAS 84852-15-3). May cause eye/skin/respiratory irritations. Prolonged and/or repeated contact with skin may cause allergic reaction/sensitization. Harmful if swallowed. HMIS Hazard Rating: H-2, F-1, R-0, PPE-C</p> <p>Component 'B' – CORROSIVE, IRRITANT, SENSITIZER – Avoid direct contact. Contains amines (mixture), aromatic hydrocarbon blend (mixture), Nonyl Phenol (CAS 84852-15-3) and Benzyl Alcohol (CAS 100-51-6). Causes eye/skin/respiratory irritations. Contact with eyes cause irreversible eye damage. Contact with skin causes severe burns. Prolonged and/or repeated contact may cause allergic reaction/sensitization. Harmful if swallowed. HMIS Hazard Rating: H-3, F-1, R-0, PPE-D</p> <p>Deliberate concentrations of vapors of 'A' and/or 'B' Components for purposes of inhalation are harmful and can be fatal.</p> <p>VOC Content ('A' + 'B') = 22 g/L</p> |
| Handling and Storage | Avoid direct contact with eyes and skin. Wear chemical-resistant clothing/gloves/goggles. Avoid breathing vapors. Use with adequate general and local ventilation. In absence of adequate ventilation, use a properly fitted, NIOSH-approved respirator. Wash thoroughly after handling product. Remove contaminated clothing and launder before reuse. |
| First Aid | <p>Eyes: Hold eyelids apart and flush thoroughly with water for 15 minutes. Skin: Remove contaminated clothing. Wash skin thoroughly for 15 minutes with soap and water. Inhalation: Remove person to fresh air. Ingestion: Do not induce vomiting. In all cases, contact a physician immediately if symptoms persist.</p> |
| Clean Up | Uncured material can be removed with approved solvent. Follow solvent manufacturer's instructions for use and warnings. Cured material (when Component 'A' combined with Component 'B') can only be removed mechanically. In case of spill, ventilate area and contain spill. Collect with absorbent material. Dispose of in accordance with current, applicable local, state and federal regulations. |

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