

# Sikadur® 52

Advanced, very-low-viscosity,  
moisture-tolerant epoxy injection adhesive

<b>Description</b>	Sikadur 52 is a 2-component, 100% solids, moisture-tolerant, epoxy adhesive. It is a low-viscosity, high-strength adhesive formulated specifically for grouting both dry and damp cracks. It conforms to the current ASTM C-881, Types I and II, Grade-1, Class C and AASHTO M-235 specifications.
<b>Where To Use</b>	<ul style="list-style-type: none"> <li>■ Use neat for gravity feed or pressure injection of cracks in structural concrete, masonry, wood, etc.</li> <li>■ Seal interior slabs and exterior above grade slabs from water, chlorides and mild chemical attack and to improve wearability.</li> </ul>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>■ Tenacious crack-sealing grout.</li> <li>■ Convenient easy mix ratio A:B = 2:1 by volume.</li> <li>■ Advanced low-viscosity structural resin.</li> <li>■ Unique, high-strength adhesive for 'can't dry' cracks.</li> </ul>
<b>Coverage</b>	1 gal. yields 231 cu. in.
<b>Packaging</b>	3-gal. units.

Construction

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

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

<b>Shelf Life</b>	2 years in original, unopened containers		
<b>Storage Conditions</b>	Store dry at 40°-95°F (4°-35°C). <b>Condition to 65°-75°F (18°-24°C) before using.</b>		
<b>Color</b>	Clear, pale yellow.		
<b>Mixing Ratio</b>	Component 'A': Component 'B' = 2:1 by volume.		
<b>Viscosity (Mixed)</b>	Approximately 200 cps.		
<b>Pot Life</b>	Approximately 30 minutes. (60 gram mass)		
<b>Tensile Properties (ASTM D-638)</b>			
<b>14 day</b>	Tensile Strength	7,900 psi (54 MPa)	
	Elongation at Break	3.1%	
	Modulus of Elasticity	2.0 X 10 <sup>5</sup> psi (1,400 MPa)	
<b>Flexural Properties (ASTM D-790)</b>			
<b>14 day</b>	Flexural Strength (Modulus of Rupture)	5,400 psi (37.2 MPa)	
	Tangent Modulus of Elasticity in Bending	3.8 X 10 <sup>5</sup> psi (2,620 MPa)	
<b>Shear Strength (ASTM D-732)</b>	<b>14 day</b>	Shear Strength	4,300 psi (29.6 MPa)
<b>Bond Strength (ASTM C-882): Hardened Concrete to Hardened Concrete</b>			
	<b>2 day (dry cure)</b>	Bond Strength	3,000 psi (20.6 MPa)
	<b>14 day (moist cure)</b>	Bond Strength	2,200 psi (15.1 MPa)
<b>Heat Deflection Temperature (ASTM D-648)</b>			
<b>14 day</b>	122°F (50°C) [fiber stress loading = 264 psi (1.8 MPa)]		
<b>Water Absorption (ASTM D-570)</b>	<b>7 day</b>	(2 hour boil)	1.5%
<b>Compressive Properties (ASTM D-695)</b>			
<b>Compressive Strength, psi (MPa)</b>			
	<b>40°F* (4°C)*</b>	<b>73°F* (23°C)*</b>	<b>90°F* (32°C)*</b>
<b>8 hour</b>	-	-	90 (0.62)
<b>16 hour</b>	-	3,000 (20.6)	7,300 (50.3)
<b>1 day</b>	-	4,500 (31.0)	8,400 (57.9)
<b>3 day</b>	1,800 (12.4)	10,000 (68.9)	8,700 (60.0)
<b>7 day</b>	6,100 (42.0)	11,300 (77.9)	10,400 (71.7)
<b>14 day</b>	6,800 (46.8)	11,700 (80.6)	10,400 (71.7)
<b>28 day</b>	8,400 (57.9)	12,000 (82.7)	10,400 (71.7)
<b>Compressive Modulus</b>	<b>28 days</b>		3.5 x 10 <sup>5</sup> psi (2,400 MPa)

\* Material cured and tested at the temperatures indicated.



## How to Use

<b>Surface Preparation</b>	<p>Surface must be clean and sound. It may be dry or damp, but free of standing water. Remove dust, laitance, grease, curing compounds, impregnations, waxes and any other contaminants.</p> <p><b>Preparation Work: Concrete</b> - Should be cleaned and prepared to achieve a laitance and contaminant free, open textured surface by blastcleaning or equivalent mechanical means.</p> <p><b>Steel</b> - Should be cleaned and prepared thoroughly by blastcleaning.</p>
<b>Mixing</b>	<p>Proportion 1 part Component 'B' to 2 parts Component 'A' by volume into a clean pail. Mix thoroughly for 3 minutes with Sika Paddle on low-speed (400-600 rpm) drill until uniformly blended. Mix only that quantity that can be used within its pot life.</p>
<b>Application</b>	<p><b>To gravity feed cracks</b> - Blow vee-notched crack clean with oil-free compressed air. Pour neat Sikadur 52 into vee-notched crack. Continue placement until cracks are completely filled. Prior to filling, seal underside of slab if cracks reflect through.</p> <p><b>To pressure inject cracks</b> - Use automated injection equipment or manual method. Set appropriate injection ports based on system used. Seal ports and cracks with Sikadur 31, Hi-Mod Gel, or Sikadur 33.</p> <p>When the epoxy adhesive seal has cured, inject Sikadur 52 with steady pressure. Consult Technical Service for additional information.</p> <p><b>To seal slabs</b> - Spread neat mixture of Sikadur 52 over slab using a roller or squeegee, working material thoroughly into the substrate to ensure penetration. Coverage should be uniform. Coat interior slabs and above-grade exterior slabs only.</p>
<b>Limitations</b>	<ul style="list-style-type: none"> <li>■ Minimum substrate and ambient temperature 40°F (4°C).</li> <li>■ Do not thin. Addition of solvents will prevent proper cure.</li> <li>■ Material is a vapor barrier after cure.</li> <li>■ Not for injection of cracks under hydrostatic pressure at the time of application.</li> <li>■ Do not inject cracks greater than 1/4 in. (6 mm) without consulting Technical Service.</li> <li>■ Do not seal exterior slabs on grade.</li> <li>■ Not an aesthetic product. Color may alter due to variations in lighting and/or UV exposure.</li> </ul>
<b>Caution</b>	<p><b>Component 'A' - Irritant; Sensitizer</b> - Contains epoxy resin. Can cause skin sensitization after prolonged or repeated contact. Skin and eye irritant. High concentrations of vapor may cause respiratory irritation. Avoid skin contact. Use only with adequate ventilation. Use of safety goggles and chemical resistant gloves is recommended. In case of exceedance of PELs, use an appropriate, properly fitted NIOSH approved respirator. Remove contaminated clothing. Consult MSDS for more detailed information.</p> <p><b>Component 'B' - Corrosive; Sensitizer</b> Contains amines. Contact with eyes or skin may cause severe burns. Skin and eye irritant. High concentrations of vapor may cause respiratory irritation. Avoid skin contact. Use only with adequate ventilation. Use of safety goggles and chemical-resistant gloves is recommended. In case of exceedance of PELs, use an appropriate, properly fitted NIOSH approved respirator. Remove contaminated clothing. Consult MSDS for more detailed information.</p>
<b>First Aid</b>	<p><b>Eyes:</b> Hold eyelids apart and flush thoroughly with water for 15 minutes. <b>Skin:</b> Remove contaminated clothing. Wash skin thoroughly for 15 minutes with soap and water. <b>Inhalation:</b> Remove person to fresh air. <b>Ingestion:</b> Do not induce vomiting. <b>In all cases, contact a physician immediately if symptoms persist.</b></p>
<b>Clean Up</b>	<p>Ventilate area. Confine spill. Collect with absorbent material. Dispose of in accordance with current, applicable local, state and federal regulations. Uncured material can be removed with approved solvent. Cured material can only be removed mechanically.</p>

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