

Sikadur® 52

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

Description	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.
Where To Use	<ul style="list-style-type: none"> ■ Use neat for gravity feed or pressure injection of cracks in structural concrete, masonry, wood, etc. ■ Seal interior slabs and exterior above grade slabs from water, chlorides and mild chemical attack and to improve wearability.
Advantages	<ul style="list-style-type: none"> ■ Tenacious crack-sealing grout. ■ Convenient easy mix ratio A:B = 2:1 by volume. ■ Advanced low-viscosity structural resin. ■ Unique, high-strength adhesive for 'can't dry' cracks.
Coverage	1 gal. yields 231 cu. in.
Packaging	3 gallons units.

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.

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



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/](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.

Compressive Modulus

28 days

3.5 x 10⁵ psi (2,400 MPa)

* Material cured and tested at the temperatures indicated.

How to Use

Surface Preparation

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.

Preparation Work: Concrete - Should be cleaned and prepared to achieve a laitance and contaminant free, open textured surface by blast cleaning or equivalent mechanical means.

Steel - Should be cleaned and prepared thoroughly by blast cleaning or other equivalent mechanical means.

Mixing

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.

Application

To gravity feed cracks - 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.

To pressure inject cracks - 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.

When the epoxy adhesive seal has cured, inject Sikadur® 52 with steady pressure. Consult Technical Service for additional information.

To seal slabs - 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.

Limitations

- Minimum substrate and ambient temperature 40°F (4°C).
- Do not thin. Addition of solvents will prevent proper cure.
- Material is a vapor barrier after cure.
- Not for injection of cracks under hydrostatic pressure at the time of application.
- Do not inject cracks greater than 1/4 in. (6 mm) without consulting Technical Service.
- Do not seal exterior slabs on grade.
- Not an aesthetic product. Color may alter due to variations in lighting and/or UV exposure.

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