

Sikadur® Injection Gel, Standard Set

High-modulus, high-strength, structural,
non-abrasive, smooth epoxy paste adhesive

Description	Sikadur Injection Gel, Standard Set is a 2-component, 100% solids, moisture-tolerant, high-modulus, high-strength, structural epoxy. When mixed it gives a smooth, non-abrasive, paste adhesive. It conforms to the current ASTM C-881, Types I and IV, Grade-3, Class-C and AASHTO M-235 specifications.
Where to Use	<ul style="list-style-type: none"> ■ Structural crack repairs not exceeding 1/4 in. (6 mm) width. ■ Mechanical grouting. . . bolts, dowels, pins, machine and 'robotic' base plates, bearing pads, etc. ■ Waterproofing tunnels, cable vaults, tanks, basements, etc. ■ Re-anchoring of veneer masonry. Consult a design professional prior to use. ■ Wood-truss repairs. ■ Preventive maintenance - grout large cracks on new or existing structures to seal off reinforcing steel from the elements of corrosion. ■ Anchor grouting . . . bolts, dowels, pins and special fasteners. Consult a design professional prior to use. ■ As a pick-proof sealant around windows, doors, lock-ups, etc. inside correctional facilities.
Advantages	<ul style="list-style-type: none"> ■ Unique, non-abrasive texture permits application with automated pressure-injection equipment. ■ Tolerant of moisture before, during, and after cure.

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 container.		
Storage Conditions	Store dry at 40°-95°F (4°-35°C). Condition material to 65°-75°F (18°-24°C) before using.		
Color	Gray.		
Mixing Ratio	Component 'A' : Component 'B' = 1:1 by volume.		
Consistency	Smooth, non-sag paste.		
Pot Life	Approximately 30 minutes. (60 gram mass)		
Tensile Properties: (ASTM D-638)			
14 day	Tensile Strength	4,300 psi (29.7 MPa)	
	Elongation at Break	1.3%	
	Modulus of Elasticity	4.1 x 10 ⁵ psi (2,829 MPa)	
Flexural Properties (ASTM D-790)			
14 day	Flexural Strength (Modulus of Rupture)	6,700 psi (46.2 MPa)	
	Tangent Modulus of Elasticity in Bending	7.5 x 10 ⁵ psi (5,175 MPa)	
Shear Strength (ASTM D-732)	14 day	Shear Strength	3,700 psi (25.5 MPa)
Bond Strength (ASTM C-882):			
Hardened concrete to hardened concrete			
2 day (dry cure)	Bond Strength	3,000 psi (20.6 MPa)	
2 day (moist cure)	Bond Strength	2,500 psi (17.2 MPa)	
14 day (moist cure)	Bond Strength	2,600 psi (17.9 MPa)	
Hardened concrete to steel			
2 day (dry cure)	Bond Strength	3,300 psi (22.7 MPa)	
14 day (moist cure)	Bond Strength	2,600 psi (17.9 MPa)	
Heat Deflection Temperature (ASTM D-648)			
7 day	[fiber stress loading = 264 psi (1.8 MPa)]		120°F (49°C)
Water Absorption (ASTM D-570)	7 day	(24 hr. immersion)	0.11%
Compressive Properties (ASTM D-695)			
Compressive Strength, psi (MPa)	40°F*** (4°C)	73°F*** (23°C)	90°F (32°C)
4 hour	-	-	300 (2.1)
8 hour	-	300 (2.1 MPa)	6,500 (44.8)
16 hour	100 (0.7)	7,500 (51.7)	7,000 (48.3)
1 day	1,400 (9.6)	8,000 (55.1)	9,500 (65.5)
3 day	7,600 (52.4)	8,500 (58.7)	10,000 (68.9)
7 day	9,000 (62.1)	9,000 (62.1)	10,000 (68.9)
14 day	10,000 (68.9)	10,000 (68.9)	10,000 (68.9)
28 day	10,000 (68.9)	10,000 (68.9)	10,000 (68.9)
Compressive Modulus	7 day	2.7 X 10 ⁵ psi (1,863 MPa)	

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***Cured and tested at the temperatures indicated.
*See limitations section for further information..



- High-modulus, high-strength, structural-paste adhesive.
- Excellent adhesion to masonry, concrete, wood, steel and most structural materials.
- Paste consistency ideal for vertical and overhead grouting of cracks.
- Convenient easy mix ratio A:B = 1:1 by volume.
- Excellent lubricity for deep penetration.
- Sikadur Injection Gel fast set is approved for short term loads only. Consult a design professional prior to use.

Coverage	1 gal. yields 231 cu. in. of epoxy paste adhesive.
Packaging	4 gal. units
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 blastcleaning or equivalent mechanical means. Steel - Should be cleaned and prepared thoroughly by blastcleaning.
Mixing	Sikadur Injection Gel, Standard Set is specially designed and formulated to be mixed and applied with automated pressure-injection equipment. Follow the recommendations and directions supplied by the equipment manufacturer. Pre-mix each component. Proportion equal parts by volume of Component 'B' and Component 'A' into a clean pail. Mix thoroughly for 3 minutes with Sika paddle on low-speed (400-600 rpm) drill until uniform in color. Mix only that quantity that can be applied within its pot life.
Application	As a structural adhesive - Apply the neat mixed Sikadur Injection Gel, Standard Set to the prepared substrates. Work into the substrate for positive adhesion. Secure the bonded unit firmly into place until the adhesive has cured. Glue line should be kept as thin as possible, not to exceed 1/4 in. (6 mm) To seal injection ports and cracks for injection grouting - Place the neat mixed material over the cracks to be pressure-injected and around each injection port. Allow sufficient time to set before pressure-injecting. To anchor bolts, dowels, pins - Annular space around bolt should not exceed 1/8 in. (3 mm); depth of embedment is typically 10-15 times the bolt diameter. Grout with neat Sikadur Injection Gel. To grout cracks - Use automated injecting equipment or manual method. Set appropriate injection ports based on the system used. Cracks up to 1/4 in. (6 mm) wide may be grouted. To anchor bolts, dowels, pins in hollow masonry or concrete block - Consult Sika Technical Service at 800-933-7452. To seal baseplates and bearing pads - Inject in-place baseplate and bearing pads with Sikadur Injection Gel. Apply up to 1/4 in. (6 mm) thick. As a pick-proof sealant - use automated or manual method. Apply an appropriate size bead of material around the area being sealed. Seal with neat Sikadur Injection Gel.
Limitations	<ul style="list-style-type: none"> ■ THE NTSB HAS STATED THAT SIKADUR INJECTION GEL FAST SET IS APPROVED FOR SHORT TERM LOADS ONLY AND SHOULD NOT BE USED IN SUSTAINED TENSILE LOAD ADHESIVE ANCHORING APPLICATIONS WHERE ADHESIVE FAILURE COULD RESULT IN A PUBLIC SAFETY RISK. CONSULT A DESIGN PROFESSIONAL PRIOR TO USE. ■ 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 sealing cracks under hydrostatic pressure. ■ Not an aesthetic product. Color may alter due to variations in lighting and/or UV exposure.
Caution	COMPONENT 'A' - IRRITANT; SENSITIZER - Contains epoxy resin, calcium carbonate and talc. May cause skin/respiratory irritation. Prolonged and/or repeated contact with skin may cause sensitization/allergic reaction. Harmful if swallowed. COMPONENT 'B' - CORROSIVE; IRRITANT; SENSITIZER - Contains amines, talc and calcium carbonate Eye/skin/respiratory irritant. Prolonged and/or repeated contact with skin may cause sensitization/allergic reaction. Harmful if swallowed. Deliberate concentrations of vapor for inhalation purposes may be harmful or fatal. Cured product, if sanded, may result in exposure to a chemical known to the State of California to cause cancer.
Components A and B	
First Aid	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.
Components A and B	
Handling & Storage	Avoid contact with skin and eyes. Wear chemical resistant gloves/goggles/clothing. Use with adequate general and local exhaust ventilation. In the absence of adequate ventilation, use a properly fitted NIOSH approved respirator. Wash thoroughly after handling product. Remove contaminated clothing and launder before reuse. Uncured material can be removed with solvent. Follow solvent manufacturer's warnings and instructions for use. Cured material can only be removed mechanically. Store in cool, dry, well ventilated area away from heat sources. Store at 40°-95°F(4°-35°C). Keep cartridge tightly closed.

Construction

Clean Up

In case of spill, wear chemical resistant clothing/gloves/goggles. Ventilate area. In the absence of adequate ventilation, use a properly fitted NIOSH respirator. Contain spill and collect with absorbent material and transfer to sealed containers. Dispose of in accordance with applicable local, state and federal regulations.

KEEP CONTAINER TIGHTLY CLOSED • KEEP OUT OF REACH OF CHILDREN • NOT FOR INTERNAL CONSUMPTION • FOR INDUSTRIAL USE ONLY

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