

PRODUCT DATA SHEET

Sikadur[®] Injection Gel

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

PRODUCT 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.

USES

- 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.

CHARACTERISTICS / ADVANTAGES

- Unique, non-abrasive texture permits application with automated pressure-injection equipment.
- Tolerant of moisture before, during, and after cure.
- 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.

PRODUCT INFORMATION

Packaging	4 gal. (15 L) units
Color	Gray
Shelf Life	24 months 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.

TECHNICAL INFORMATION

Compressive Strength	40 °F* (4 °C)	73 °F* (23 °C)	90 °F* (32 °C)
4 hours	-	-	300 psi (2.1 MPa)
8 hours	-	300 psi (2.1 MPa)	6,500 psi (44.8 MPa)
16 hours	100 psi (0.7 MPa)	7,500 psi (51.7 MPa)	7,000 psi (48.3 MPa)
1 day	1,400 psi (9.6 MPa)	8,000 psi (55.1 MPa)	9,500 psi (65.5 MPa)
3 days	7,600 psi (52.4 MPa)	8,500 psi (58.7 MPa)	10,000 psi (68.9 MPa)
7 days	9,000 psi (62.1 MPa)	9,000 psi (62.1 MPa)	10,000 psi (68.9 MPa)
14 days	10,000 psi (68.9 MPa)	10,000 psi (68.9 MPa)	10,000 psi (68.9 MPa)
28 days	10,000 psi (68.9 MPa)	10,000 psi (68.9 MPa)	10,000 psi (68.9 MPa)

*Cured and tested at the temperatures indicated.

Flexural Strength	6,700 psi (46.2 MPa) min. (14 days)		(ASTM D-790)
Modulus of Elasticity in Flexure	7.5*10 ⁵ psi (5.175 MPa) min. (14 days)		(ASTM D-790)
Tensile Strength	4,300 psi (29.7 MPa) min. (14 days)		(ASTM D-638)
Tensile Modulus of Elasticity	4.1 * 10 ⁵ psi (2.829 MPa) min. (14 days)		(ASTM D-638)
Elongation at Break	1.3 % min. (14 days)		(ASTM D-638)
Tensile Adhesion Strength	Hardened concrete to hardened concrete		
2 day (dry cure)	Bond Strength	3,000 psi (20.6 MPa)	(ASTM C-882)
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 hardened concrete		
2 day (dry cure)	Bond Strength	3,300 psi (22.7 MPa)	(ASTM C-882)
14 day (moist cure)	Bond Strength	2,600 psi (17.9 MPa)	

APPLICATION INFORMATION

Mixing Ratio	Component 'A' : Component 'B' = 1:1 by volume.
Coverage	1 gal. yields 231 cu. in. of epoxy paste adhesive.
Pot Life	Approx. 30 min. (60 grams mass.)

APPLICATION INSTRUCTIONS

SUBSTRATE 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 METHOD / TOOLS

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

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions

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.

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

OTHER RESTRICTIONS

See Legal Disclaimer.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

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 laundry 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.

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.

LEGAL DISCLAIMER

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

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or 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 label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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 the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

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Product Data Sheet

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