

Sikadur® 32, Hi-Mod LPL

High-modulus, high-strength, extended pot life, epoxy bonding/grouting adhesive

Description	Sikadur 32, Hi-Mod LPL is a multi-purpose, 2-component, 100% solids, moisture-tolerant, structural epoxy adhesive. Sikadur 32, Hi-Mod LPL offers a long pot life and contact time even at 100°F (38°C). Sikadur 32, Hi-Mod LPL conforms to the current ASTM C-881 and AASHTO M-235 specifications.
Where to Use	<ul style="list-style-type: none"> ■ Hot weather concrete placements requiring a bonding adhesive. ■ Bond fresh, plastic concrete to hardened concrete and steel. ■ Grout bolts, dowels, pins, etc. ■ Grout horizontal cracks in structural concrete and wood by gravity feed. ■ Machinery and baseplate grout. ■ Structural adhesive for concrete, masonry, metal, wood, etc.
Advantages	<ul style="list-style-type: none"> ■ Extended pot life and contact time at elevated temperatures. ■ High-strength bonding/grouting adhesive. ■ Tolerant of moisture before, during, and after cure. ■ Excellent adhesion to most structural materials. ■ Convenient easy-to-mix ratio A:B = 1:1 by volume. ■ Easy-to-use for bonding/grouting applications.

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

Shelf Life	2 years in original, unopened containers.			
Storage Conditions	Store dry at 40°-95°F (4°-35°C). Condition material to 65°-75°F (18°-24°C) before using.			
Color	Dark gray.			
Mixing Ratio	Component 'A' : Component 'B' = 1:1 by volume.			
Viscosity (Mixed)	Approximately 2,800 cps.			
Pot Life	Approximately 60 minutes @ 73°F (23°C). (60 gram mass) Approximately 30 minutes @ 100°F (38°C). (60 gram mass)			
Contact Time:	Substrate Temperature	40°F (4°C)	73°F (23°C)	90°F (32°C)
	Material Temperature 73°F (23°C)	10-14 hr.	4-5 hr.	1-2 hr.
	Material Temperature 100°F (38°C)	6-8 hr.	3-4 hr.	1-1.5 hr.
Tensile Properties (ASTM D-638)	14 day	Tensile Strength	4,800 psi (33.1 MPa)	
		Elongation at Break	1.8 %	
		Modulus of Elasticity	2.4 x 10 ⁵ psi (1,700 MPa)	
Flexural Properties (ASTM D-790)	14 day	Flexural Strength (Modulus of Rupture)	8,600 psi (59.3 MPa)	
		Tangent Modulus of Elasticity in Bending	4.5 X 10 ⁵ psi (3,100 MPa)	
Shear Strength (ASTM D-732)	14 day	Shear Strength	5,600 psi (38.6 MPa)	
Water Absorption (ASTM D-570)	7 day	(2 hour boil)	0.6%	
Deflection Temperature (ASTM D-648)	14 day		108°F (42°C)	
			(fiber stress loading = 264 psi {1.8 MPa})	
Bond Strength (ASTM C-882)	14 day (moist cure)	Plastic concrete to hardened concrete	2,200 psi (15.1 MPa)	
	14 day (moist cure)	Plastic concrete to steel	1,700 psi (11.7 MPa)	
	2 day (dry cure)	Hardened concrete to hardened concrete	3,100 psi (21.3 MPa)	
	14 day (moist cure)	Hardened concrete to hardened concrete	2,900 psi (20 MPa)	
Compressive Properties (ASTM D-695)	Compressive Strength, psi (MPa)			
		40°F* (4°C)*	73°F* (23°C)*	
	1 day	-	-	
	3 day	-	2,600 (17.9)	
	7 day	2,500 (17.2)	8,800 (60.6)	
	14 day	8,300 (57.2)	9,100 (62.7)	
	28 day	10,000 (68.9)	10,500 (72.4)	
Compressive Modulus	28 day	2.6 x 10 ⁵ psi (1,793 MPa)		

* Material cured and tested at the temperatures indicated.



Coverage	Bonding Adhesive - 1 gal. covers approximately 80 sq.ft. on smooth surface. Base Plate Grout - 1 gal. mixed with 1 1/2 parts oven-dried aggregate by loose volume yields approximately 420 cu.in. of grout. Adhesive and anchoring grout - 1 gal. yields 231 cu.in. of grout.
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 blast cleaning or equivalent mechanical means. Steel - Should be cleaned and prepared thoroughly by blast cleaning.
Mixing	Pre-mix each component. Proportion equal parts by volume of Component 'A' and Component 'B' into clean pail. Mix thoroughly for 3 minutes with Sika paddle on low-speed (400-600 rpm) drill until blend is a uniform color. Mix only that quantity that can be applied within its pot life.
Application	To bond fresh concrete to hardened concrete - Apply by brush, roller, broom, or spray. Place fresh concrete while Sikadur 32, Hi-Mod LPL is still tacky. If coating becomes glossy and loses tackiness, remove any surface contaminants then recoat with additional Sikadur 32, Hi-Mod LPL and proceed. To anchor bolts, dowels and pins - Use neat. For efficient transfer of stress, the hole should be no greater in diameter than 1/4 in. (6 mm) larger than the bar, pin or rod to be embedded. Depth of embedment is typically 10 to 15 bar diameters. To grout base plates - Add up to 1 part of oven-dried aggregate to 1 part of mixed Sikadur 32, Hi-Mod LPL by volume. Place grout under baseplate. Avoid contact with the underside of the plate. A 1/4- to 3/8-in. (6-10 mm) space should remain between the top of the grout and the bottom of the plate. Maximum thickness of grout per lift is 1.5 in. (38 mm) If multiple lifts are needed, allow preceding layer to cool to touch before applying additional layer. The remaining 1/4 to 3/8-in. (6-10 mm) space should be filled with neat Sikadur 32, Hi-Mod LPL. Pour a sufficient quantity of neat epoxy to allow the level to rise slightly higher than the underside of the bearing plate. To gravity feed cracks - Pour neat material into vee-notched crack. Continue placement until completely filled. Seal underside of slab prior to filling if cracks reflect through.
Limitations	<ul style="list-style-type: none"> ■ Minimum substrate and ambient temperature 40°F (4°C). ■ For spray applications, consult Technical Service. ■ Use only oven-dry aggregate. ■ Material is a vapor barrier after cure. ■ For applications on exterior, on-grade substrates, consult Technical Service.
Caution	Component 'A' - Irritant; Sensitizer - 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. Component 'B' - Corrosive; Sensitizer - Contains amines and crystalline silica (sand). Contact with eyes or skin may cause severe burns. Can cause skin and/or respiratory sensitization after prolonged or repeated contact. Skin and eye irritant. High concentrations of vapor may cause respiratory irritation. If sanded, crystalline silica dust may be generated and may cause delayed lung injury (silicosis) and is listed as a suspect carcinogen by NTP and IARC (2A). 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.
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.
Clean Up	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.

KEEP CONTAINER TIGHTLY CLOSED
NOT FOR INTERNAL CONSUMPTION
CONSULT MATERIAL SAFETY DATA SHEET FOR MORE INFORMATION

KEEP OUT OF REACH OF CHILDREN
FOR INDUSTRIAL USE ONLY

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 technical data sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor.

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.

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