

Sikadur® 32, Hi-Mod

High-modulus, high-strength,
epoxy bonding/grouting adhesive

Description	Sikadur 32, Hi-Mod, is a multi-purpose, 2-component, 100% solids, moisture-tolerant structural epoxy adhesive. It conforms to the current ASTM C-881 and AASHTO M-235 specifications.
Where to Use	<ul style="list-style-type: none"> ■ Bond fresh, plastic concrete to hardened concrete and steel. ■ Grout bolts, dowels, and pins, etc. ■ Grout horizontal cracks in structural concrete and wood by gravity feed. ■ Machinery and 'robotic' base-plate grout. ■ Structural adhesive for concrete, masonry, metal, wood, etc.
Advantages	<ul style="list-style-type: none"> ■ Super-strength bonding/grouting adhesive. ■ Tolerant to 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. ■ Fast initial set; rapid gain to ultimate strengths. ■ USDA-certifiable for use in food plants.

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	Concrete gray		
Mixing Ratio	Component 'A': Component 'B' = 1:1 by volume.		
Viscosity	Approximately 3,000 cps.		
Pot Life	Approximately 30 minutes. (60 gram mass). Approximately 22 minutes. (350 gram mass, 8 oz.)		
Contact Time	40°F (4°C)*: 12 hrs.	73°F (23°C)*: 3-4.5 hrs.	90°F (32°C)*: 1.5-2 hrs
Compressive Modulus, psi	7 day 2.1 X 10 ⁵ psi (1,449 MPa)		
Tensile Properties (ASTM D-638)			
7 day	Tensile Strength	6,900 psi (48 MPa)	
	Elongation at Break	1.9%	
14 day	Modulus of Elasticity	5.4 X 10 ⁵ psi (3,726 MPa)	
Flexural Properties (ASTM D-790)			
14 day	Flexural Strength (Modulus of Rupture)	7,000 psi (48.3 MPa)	
	Tangent Modulus of Elasticity in Bending	6.9 X 10 ⁵ psi (4,800 MPa)	
Shear Strength (ASTM D-732)	14 day	Shear Strength	6,200 psi (43 MPa)
Water Absorption (ASTM D-570)	7 day	(24 hour immersion)	0.21%
Heat Deflection Temperature (ASTM D-648)			
7 day	[fiber stress loading 264 psi (1.8 MPa)]	122°F (50°C)	
Bond Strength (ASTM C-882):			
2 day (moist cure)	Plastic Concrete to Hardened Concrete	1,700 psi (11.7 MPa)	
	Hardened Concrete to Hardened Concrete	2,000 psi (13.8 MPa)	
	Hardened Concrete to Steel	1,900 psi (13.1 MPa)	
14 day (moist cure)	Plastic Concrete to Hardened Concrete	2,200 psi (15.1 MPa)	
	Plastic Concrete to Steel	2,000 psi (13.8 MPa)	
	Hardened Concrete to Hardened Concrete	2,000 psi (13.8 MPa)	

Compressive Properties (ASTM D-695)
Compressive Strength, psi (MPa)

	40°F* (4°C)	73°F* (23°C)	90°F* (32°C)
8 hour	-	140 (1.0)	1,700 (11.7)
16 hour	-	4,800 (33.1)	7,300 (50.3)
1 day	30.0 (0.2)	5,700 (39.3)	7,300 (50.3)
3 day	5,300 (36.6)	11,300 (77.9)	10,400(71.7)
7 day	9,600 (66.2)	11,800 (81.4)	10,400(71.7)
14 day	11,900 (82.1)	12,200 (84.1)	10,400(71.7)
28 day	12,600 (86.9 MPa)	12,200 (84.1 MPa)	10,500(72.4 MPa)

*Material cured and tested at the temperatures indicated.



Coverage	<p>Bonding Adhesive - 1 gal. covers approximately 80 sq. ft. on smooth surface.</p> <p>Base Plate Grout - 1 gal. mixed with 1.5 parts oven-dried aggregate by loose volume yields approximately 420 cu. in. of grout.</p> <p>Adhesive and anchoring grout - 1 gal. yields 231 cu. in. of grout.</p>
Packaging	2 and 4 gal. units; 1kg. unit (25.6 fl.oz.), 6/case, 75/pallet; 2.5 kg. unit (63.8 fl.oz.), 2/case, 90/pallet
How to Use Surface Preparation	<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>Preparation Work: Concrete - Should be cleaned and prepared to achieve a laitance and contaminant free, open textured surface by blastcleaning or other equivalent mechanical means.</p> <p>Steel - Should be cleaned and prepared thoroughly by blastcleaning.</p>
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	<p>To bond fresh concrete to hardened concrete - Apply by brush, roller, broom or spray. Place fresh concrete while Sikadur 32, Hi-Mod, is still tacky. If coating becomes glossy and loses tackiness, remove any surface contaminants then recoat with additional Sikadur 32 Hi-Mod, and proceed.</p> <p>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, but should be to the engineer's instruction.</p> <p>To grout baseplates - Add up to 1 1/2 parts of oven-dried aggregate to 1 part of mixed Sikadur 32, Hi-Mod, by volume. Place grout under baseplate. Avoid contact with the underside of the plate. A 1/4 to 3/8 in. (6 to 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 to 10 mm) space should be filled with neat Sikadur 32 Hi-Mod. Pour a sufficient quantity of neat epoxy to allow the level to rise slightly higher than the underside of the bearing plate.</p> <p>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.</p>
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. ■ Do not apply over wet, glistening surface.
Caution	<p>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.</p> <p>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.</p>
First Aid	<p>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.</p>
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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