

Sikadur® 35, Hi-Mod LV

High-modulus, low-viscosity, high-strength epoxy grouting/sealing/binder adhesive

Description	Sikadur 35, Hi-Mod LV is a 2-component, 100% solids, moisture-tolerant, low-viscosity, high-strength, multi-purpose, epoxy resin adhesive. It conforms to the current ASTM C-881 and AASHTO M-235 specifications.
Where to use	<ul style="list-style-type: none"> ■ Pressure-injection of cracks in structural concrete, masonry, wood, etc. ■ Grouting bolts, dowels, pins, etc. ■ Gravity-feed of cracks in horizontal concrete and masonry. ■ Epoxy resin binder for epoxy mortar patching and overlay of interior, horizontal surfaces. ■ Seal interior slabs and exterior above-grade slabs from water, chlorides, and mild chemical attack; also improves wearability.
Advantages	<ul style="list-style-type: none"> ■ Super low viscosity. ■ Convenient easy mix ratio A:B = 2:1 by volume. ■ Unique, high-strength, structural adhesive for “can’t dry” surfaces. ■ Deep penetrating and tenacious bonding of cracks in structural concrete. ■ High-early-strength developing adhesive. ■ Excellent chemical resistance for flooring systems.

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	Clear, amber.					
Mixing Ratio	Component A : Component B=2:1 by volume.					
Viscosity (Mixed)	Approximately 375 cps.					
Pot Life	Approximately 25 minutes. (60 gram mass)					
Tack Free Time	40°F (4°C)	73°F (23°C)	90°F (32°C)			
(3-5 mils) Neat	14-16 hrs.	3-3.5 hrs.	1.5-2 hrs.			
Tensile Properties (ASTM D-638)	Neat			Mortar		
7 day	Tensile Strength	8,900 psi (61.4 MPa)		14 day	840 psi (5.8 MPa)	
	Elongation at Break	5.4%			0.3%	
14 day	Modulus of Elasticity	4.1 X 10 ⁵ psi (2,800 MPa)			7.6 X 10 ⁵ psi (5,200 MPa)	
Flexural Properties (ASTM D-790)						
14 day	Flexural Strength (Modulus of Rupture)	14,000 psi (96.6 MPa)		2,200 psi (15.2 MPa)		
	Tangent Modulus of Elasticity in Bending	3.7 x 10 ⁵ psi (2,600 MPa)		9.5 X 10 ⁵ psi (6,500 MPa)		
Shear Strength (ASTM D-732)						
14 day	Shear Strength	5,100 psi (35.2 MPa)			2,300 psi (15.9 MPa)	
Heat Deflection Temperature (ASTM D-648)						
7 day	[fiber stress loading = 264 psi (1.8 MPa)]	124°F (51°C)			129°F (54°C)	
Bond Strength (ASTM C-882): Hardened concrete to hardened concrete						
2 day (moist cure)	Bond Strength	4,000 psi (27.6 MPa)				
14 day (moist cure)	Bond Strength	2,900 psi (20.0 MPa)				
2 day (dry cure)	Bond Strength	2,800 psi (19.3 MPa)				
Water Absorption (ASTM D-570)	7 day	(24 hour immersion)			0.27 %	
Compressive Properties (ASTM D-695)						
Compressive Strength, psi (MPa)	Neat			Mortar (1:5)		
	40°F (4°C)	73°F (23°C)	90°F (32°C)	40°F (4°C)	73°F (23°C)	90°F (32°C)
4 hour	-	-	-	-	-	800 (5.5)
8 hour	-	180 (1.2)	3,200 (22.1)	-	-	4,100 (28.3)
16 hour	-	4,500 (31.1)	6,300 (43.5)	-	400 (2.8)	5,700 (39.3)
1 day	-	6,000 (41.4)	9,100 (62.8)	120 (0.8)	5,000 (34.5)	6,900 (47.6)
3 day	4,000 (27.6)	10,700 (73.8)	10,500 (72.5)	6,200 (42.8)	6,800 (46.9)	7,000 (48.3)
7 day	6,800 (46.9)	11,000 (75.9)	10,500 (72.5)	6,300 (43.5)	7,900 (54.5)	8,800 (60.7)
14 day	10,300 (71.1)	12,000 (82.8)	10,500 (72.5)	6,800 (46.9)	8,500 (58.7)	8,800 (60.7)
28 day	12,400 (85.6)	13,000 (89.7)	10,500 (72.5)	7,000 (48.3)	8,600 (59.3)	8,800 (60.7)
Compressive Modulus	Neat			Mortar		
	7 day			28 day		
	3.2 X 10 ⁵ psi (2,200 MPa)			8.1 X 10 ⁵ psi (5,600 MPa)		



Coverage	1 gal. yields 231 cu. in. of adhesive and grout. 1 gal. of adhesive, when mixed with 5 gal. by loose volume of oven-dried aggregate, yields approximately 808.5 cu. in. of epoxy mortar.
Packaging	3 gal. units; 1 gal. units, 2/case; 12 fl.-oz. units, 12/case.
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, foreign particles and disintegrated materials.
Preparation Work:	Concrete - Blast clean, shot blast or use other approved mechanical means to provide an open roughened texture. Steel - Should be cleaned and prepared thoroughly by blast cleaning.
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. To prepare an epoxy mortar , slowly add 4-5 parts by loose volume of an oven-dried aggregate to 1 part of the mixed Sikadur 35, Hi-Mod LV and mix until uniform in consistency.
Application	To gravity feed cracks - Blow vee-notched crack clean with oil-free compressed air. Pour neat Sikadur 35, Hi-Mod LV into vee-notched crack. Continue placement until completely filled. Seal underside of slab prior to filling 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 crack with Sikadur 31, Hi-Mod Gel or Sikadur 33. When the epoxy adhesive seal has cured, inject Sikadur 35, Hi-Mod LV with steady pressure. Consult Technical Service for additional information. To anchor bolts, dowels and 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 35, Hi-Mod LV. To seal slabs - Spread neat Sikadur 35, Hi-Mod LV over slab. Allow penetration. Remove excess to prevent surface film. Seal interior slabs and above-grade exterior slabs only. For an epoxy mortar - Prime prepared surface with neat Sikadur 35, Hi-Mod LV. Place prepared epoxy mortar before primer becomes tack-free. Place the epoxy mortar using trowels. Compact and level with vibrating screed or trowels. Finish with finishing trowel. Sikadur 35, Hi-Mod LV mortar is for interior use only.
Limitations	<ul style="list-style-type: none"> ■ Minimum substrate and ambient temperature 40°F (4°C). ■ Do not thin with solvents. Consult Technical Service. ■ Use oven-dried aggregate only. ■ Maximum epoxy mortar thickness is 1.5 in. (38 mm) per lift. ■ Epoxy mortar is for interior use only. ■ Do not seal exterior slabs on grade. ■ Minimum age of concrete must be 21-28 days, depending on curing and drying conditions, for mortar and to seal slabs. ■ Porous substrates must be tested for moisture-vapor transmission prior to application. ■ Not for injection of cracks under hydrostatic pressure at the time of application. ■ Do not inject cracks greater than 1/4 in. (6 mm) 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. 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. 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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1-800-933-SIKA NATIONWIDE

Regional Information and Sales Centers. For the location of your nearest Sika sales office, contact your regional center.

Sika Corporation
201 Polito Avenue
Lyndhurst, NJ 07071
Phone: 800-933-7452
Fax: 201-933-6225

Sika Canada Inc.
601 Delmar Avenue
Pointe Claire
Quebec H9R 4A9
Phone: 514-697-2610
Fax: 514-694-2792

Sika Mexicana S.A. de C.V.
Carretera Libre Celaya Km. 8.5
Corregidora, Queretaro
C.P. 76920 A.P. 136
Phone: 52 42 25 0122
Fax: 52 42 25 0537

