

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, Types I, II, and IV, Grade-1, Class C* and AASHTO M-235 specifications. * Except for gel time
Where to Use	<ul style="list-style-type: none"> ■ Pressure-injection of cracks in structural concrete, masonry, wood, 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.
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; 12 fl.-oz. units, 12/case.

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

RESULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIX DESIGNS, MIXING METHODS AND EQUIPMENT, TEMPERATURE, APPLICATIONS METHODS, TEST METHODS, ACTUAL SITE CONDITIONS AND CURING CONDITIONS

Shelf Life	2 years in original, unopened containers.					
Product Storage	Store dry at 40°-95°F (4°-35°C).					
Product Conditioning	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 (3-5 mils) Neat	40°F (4°C)		73°F (23°C)		90°F (32°C)	
	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)
4 hour	-	-	-	-	-	800 (5.5)
8 hour	-	180 (1.2)	3,200 (22.1)	-	-	4,100 (28.3)

PRIOR TO EACH USE OF ANY SIKA PRODUCT, THE USER MUST ALWAYS READ AND FOLLOW THE WARNINGS AND INSTRUCTIONS ON THE PRODUCT'S MOST CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET WHICH ARE AVAILABLE ONLINE AT [HTTP://USA.SIKA.COM/](http://usa.sika.com/) OR BY CALLING SIKA'S TECHNICAL SERVICE DEPARTMENT AT 800.933.7452 NOTHING CONTAINED IN ANY SIKA 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 DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET PRIOR TO PRODUCT USE.

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	3.2 X 10⁵ psi (2,200 MPa)		28 day	8.1 X 10⁵ psi (5,600 MPa)	

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.

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 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

- Minimum substrate and ambient temperature 40°F (4°C).
- Do not thin with solvents. Consult Technical Service at 800-933-7452.
- 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.
- Not an aesthetic product. Color may alter due to variations in lighting and/or UV exposure.

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

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

Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Product Data Sheet, product label and Safety Data Sheet which are available online at <http://usa.sika.com/> or by calling Sika's Technical Service Department at 800-933-7452. Nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instruction for each Sika product as set forth in the current Product Data Sheet, product label and Safety Data Sheet prior to product use.

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