Sikadur® 35, Hi-Mod LV LPL

High-modulus, low-viscosity, high-strength, extended pot life, epoxy adhesive

Description	Sikadur® 35, Hi-Mod LV LPL 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 bond strength
Where to Use	 Low pressure and high 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 grouting. Seal interior slabs and exterior above-grade slabs from water, chlorides and mild chemical attack; also improves wearability. Epoxy resin binder for epoxy mortar repair for structural pile members.
Advantages	 Extended pot life. Low viscosity and excellent penetrating ability. Slow reaction rate and low exotherm. 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. Excellent chemical resistance.
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. Typical coverage is 150-175 ft.²/gal. (3.7-4.3 m²/L) for surface sealing. Coverage varies with porosity and surface profile of substrate. Higher porosity concrete will reduce coverage.
Packaging	3 gal. units. 165 gal. units.

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

RESULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIXING METHODS AND EQUIPMENT, TEMPERATURE, APPLICATION METHODS, TEST METHODS, ACTUAL SITE CONDITIONS AND CURING CONDITIONS.

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 250 cps.

Pot Life Approximately 90 minutes (250 grams).

Approximately 40 minutes (250 grams) @ 100°F (38°C)

 Tensile Properties (ASTM D-638)
 60°F (15°F)
 73°F (23°F)

 7 day
 Tensile Strength
 7,200 psi (49.6 MPa)
 7,500 psi (51.8 MPa)

Heat Deflection Temperature (ASTM D-648) 7 day (Fiber Stress Loading = 264 psi) 120°F (49°C)

Elongation at Break 4.0 % 4.8%

Bond Strength (ASTM C-882): Hardened concrete to hardened concrete

2 day (moist cure)Bond Strength 1,100 psi (7.6 MPa)14 day (moist cure)Bond Strength 1,300 psi (9.0 MPa)

Water Absorption (ASTM D-570) 24 hrs. (24 hr. immersion) 0.35%

Compressive Properties (ASTM D-695):

Compressive Strength 73°F (23°C) 90°F (32°C)

 1 day
 1,450 psi (10.0 MPa)
 7,100 psi (49.0 MPa)

 3 day
 9,600 psi (66.2 MPa)
 10,000 psi (69.0 MPa)

 7 day
 11,800 psi (81.3 MPa)
 11,100 psi (76.6 MPa)

 28 day
 13,000 psi (89.6 MPa)
 11,300 psi (78.0 MPa)

Compressive Modulus 7 day 270 psi (1,863 MPa)



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How to Use Surface Preparation

	Preparation Work: Concrete - Should be cleaned and prepared thoroughly 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 or other equivalent mechanical means
Mixing	Proportion 1 part Component 'B' to 2 parts Component 'A' by volume into a clean pail. Mix thoroughly for 3 minutes with a low-speed (400 - 600 rpm) drill using Sika Paddle 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 LPL and mix until uniform in consistency.
Application	To gravity feed cracks - Blow vee-notched surface of crack clean with oil-free compressed air. Pour neat Sikadur® 35, Hi-Mod LV LPL, into vee-notched crack. Continue placement until completely filled. Seal underside of slab prior to filling if cracks reflect through.
	To seal slabs - Spread neat Sikadur® 35, Hi-Mod LV LPL 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, LPL. 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. Epoxy mortar is for interior use only.
	To pressure inject cracks - Suitable for low or high pressure injection. 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 LPL with steady pressure. Consult Technical Service for additional information.
Limitations	■ Minimum application temperature 40°F (4°C).
	Do not thin with solvents.
	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 upon curing and drying conditions, for mortar applications, and to seal slabs.
	 Porous substrates must be tested for moisture-vapor transmission prior to mortar or sealing slabs.
	 Not for injection of cracks under hydrostatic pressure.
	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.

grease, curing compounds, impregnations, waxes and any other contaminants.

Surface must be clean and sound. It may be dry or damp, but free of standing water. Remove dust, laitance,

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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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