

Sikadur® 55 SLV

Super low-viscosity, moisture-tolerant epoxy resin,
crack healer/penetrating sealer

Description	Sikadur® 55 SLV is a 2-component, 100% solids, moisture-tolerant, epoxy crack healer / penetrating sealer, having a fast tack-free time to minimize downtime. It is a super low-viscosity, high-strength adhesive formulated specifically for sealing both dry and damp, existing, non-dynamic cracks. It conforms to the current ASTM C-881, Types I and II, Grade-1, Class-C* and AASHTO M-235 specifications. * except for gel time
Where to Use	<ul style="list-style-type: none"> ■ Sikadur® 55 SLV seals cracked concrete. ■ For interior slabs and exterior above-grade slabs. ■ For elevated horizontal decks, parking garages and other structures exposed to foot and pneumatic tire traffic.
Advantages	<ul style="list-style-type: none"> ■ Super low viscosity/low surface tension for excellent penetration into existing cracks. ■ Seals existing cracks by gravity down to 2 mils (0.002" / 0.05 mm) in width. ■ Prolongs life of cracked concrete. ■ Penetrates and seals surface from water absorption, chloride-ion intrusion, and chemical attack (patent pending technology). ■ Improves concrete surface by reducing water and chloride intrusion. ■ Can be open to traffic in 6 hours at 73°F (23°C). ■ High bond strength, even in damp cracks. ■ U.S. Patent No. (pending) for ultra low viscosity healer/sealer to strengthen cracked concrete.
Coverage	1 gal. (3.8 liters) yields 231 cu. in. (3,785 cm³) Typical coverage is 150-175 ft²/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. For crack healing, follow Application instructions and allow to pond over cracks.
Packaging	3 gal. (11.35 l) unit = 'A' = 2 gal. (7.6 l) + 'B' = 1 gal. (3.8 l)

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 105 cps			
Pot Life	Approximately 20 minutes			
Tack-Free Time	40°F (4°C)* > 11 hrs.	60°F (15°C)* 11 hrs.	73°F (23°C)* 6 hrs.	90°F (32°C)* 2.5 hrs.
Tensile Properties (ASTM D-638)	73°F (23°C)			
7 day	Tensile Strength	7,100 psi (48.9 MPa)		
	Elongation at break	10%		
Bond Strength (ASTM C-882)	Hardened Concrete to Hardened Concrete			
	2 day (moist cure)	2,500 psi (17.2 MPa)		
	14 day (moist cure)	2,500 psi (17.2 MPa)		
	Hardened Concrete to Steel			
	2 day (moist cure)	1,500 psi (10.3 MPa)		
	14 day (moist cure)	1,600 psi (11.0 MPa)		
Flexural Properties (ASTM D-790)	7 day			
	Flexural Strength	8,500 psi (58.6 MPa)		
	Tangent Modulus of Elasticity	3.2 x 10 ⁵ psi (2,206 MPa)		
Shear Strength (ASTM D-732)	7 day	5,800 psi (40.0 MPa)		
Heat Deflection Temperature (ASTM D-648)	7 day	110°F (43°C)		
	[fiber stress loading = 264 psi (1.8 MPa)]			
Water Absorption (ASTM D-570)	7 day	(24 hour immersion)	0.60%	



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.

Compressive Properties (ASTM D-695)

Compressive Strength, psi (MPa)

	40°F (4°C)*	60°F (15°C)*	73°F (23°C)*	90°F (32°C)*
1 day	-	320 (2.2)	1,100 (7.6)	4,800 (33.1)
3 day	2,000 (13.8)	6,500 (44.8)	8,300 (57.2)	8,000 (55.2)
7 day	7,800 (53.8)	10,400 (71.7)	10,900 (75.1)	8,300 (57.2)
14 day	9,600 (66.2)	11,000 (75.8)	11,800 (81.4)	10,000 (68.9)
28 day	11,700 (80.7)	12,000 (82.7)	12,000 (82.7)	10,000 (68.9)

Compressive Modulus **7 day** 3.0 x 10⁵ psi (2,068 MPa)

How to Use

Surface Preparation

Substrate must be clean, sound and free of surface moisture. Remove dust, laitance, grease, oils, curing compounds, waxes, impregnations, foreign particles, coatings and disintegrated materials by mechanical means (i.e. shot blasting, sandblasting, etc.). For best results, substrate should be dry. Surfaces prepared by Low Pressure Water Cleaning or High Pressure Water Jetting methods should be allowed to dry for 24 hrs. minimum [at 73°F (23°C)].

Mixing

Mix 1 part Component 'B' to 2 parts Component 'A' by volume into a clean pail. Mix thoroughly for 3 minutes with Sika paddle or jiffy mixer on a low-speed (400-600 rpm) drill until uniformly blended. Mix only that quantity which can be used within its pot life.

Application

To gravity feed cracks: Sikadur® 55 SLV is applied to horizontal surfaces by flat squeegee or broom. Spread material over area and allow to pond over cracks. Let material penetrate into cracks and substrate. Remove excess epoxy with roller leaving no visible surface film. For cracks greater than 1/8 in. (3 mm) wide, fill crack with oven-dried sand before applying Sikadur® 55 SLV. Seal cracks from underside, when accessible, to prevent leakage.

A second treatment may be required on very porous substrates. Apply second treatment before broadcasting. After treatment, wait a minimum of 20-30 minutes at 73°F (23°C) before broadcasting sand. Cover with broadcast of an oven-dried 20/40 silica sand or similar sand. Distribute evenly over the surface to excess at a rate of 30-40 lbs./100 sq. ft.. Allow to cure 6 hours minimum at 73°F (23°C). Remove any loose sand and open to traffic once epoxy has cured. Consult Sika Technical Service at 1-800-933-SIKA for additional information.

To pressure inject cracks: Use automated injection equipment. Set appropriate injection ports. Seal ports and cracks with Sikadur® 31, Hi-Mod Gel, Sikadur® Injection Gel or Sikadur® AnchorFix 2/Sikadur® AnchorFix 500. When the epoxy adhesive has cured, inject Sikadur® 55 SLV with steady pressure. Consult Technical Service at 1-800-933-SIKA for additional information. Mock ups to ascertain penetration on job site conditions is strongly recommended. Actual penetration should be verified by core testing.

Limitations

- Do not thin. Addition of solvents will prevent proper cure.
- Material is a vapor barrier after cure.
- Do not apply if rain is imminent. Water exposure or humidity will affect surface appearance and may cause surface whitening.
- Not an aesthetic product. Color may alter due to variations in lighting and/or UV exposure.
- Sealed concrete surface may appear blotchy due to differential absorption.
- Allow sufficient time for the substrate to dry after rain or other inclement conditions.
- Application temperature of substrate must be minimum 5°F (3°C) above the dew point.
- Minimum ambient and substrate temperature 40°F (4°C). Maximum application temperature 95°F (35°C).
- Do not inject cracks greater than 1/4 in. (6 mm) Consult Technical Service at 1-800-933-SIKA.
- Minimum age of concrete is 21-28 days, depending on curing and drying conditions.
- Not designed to seal or inject cracks under hydrostatic pressure during application.
- Penetration results will vary. Factors that may impede penetration include, but are not limited to, temperature (ambient and material), geometry of crack, concrete porosity, and dirt inside cracks.
- Product is not appropriate for use in dynamic cracks.

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