

SILPRO

CIE 100 EPOXY™

Epoxy Bonding Agent

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CIE 100 EPOXY™ is a solvent-free, moisture insensitive, 100% solids, low modulus, two-component bonding agent designed for use as a primer with self-leveling toppings and other applications where a superior bond is required. **CIE 100 EPOXY™** can be used over in-plane cracks less than ¼ in. wide, saw-cut control joints and construction joints. It meets ASTM C-881 Type III, Grade 1, Classes B and C, as well as USDA specifications for use in food processing areas. **CIE 100 EPOXY™** is also excellent for use as a binder for concrete skid-resistant overlays on bridges and elevated slabs.

USE CIE 100 EPOXY™ FOR

- Bonding agent for self-leveling toppings.
- Primer system over in-plane cracks less than ¼ in. wide, saw-cut control joints and construction joints.
- Bonding skid-resistant overlays to bridges and elevated slabs.
- Patching concrete as epoxy mortar when mixed with sand

TEST DATA

Resin Properties Laboratory Tests	Results	ASTM C-881 Specifications
Mix Ratio	1:1	None
D-695 Compressive Modulus	80,000-120,000 psi	130,000 psi max.
D-638 Tensile Strength	2,700-3,200 psi	None
D-638 Tensile Elongation	40%-50%	30% min
C-882 Bond Strength (14 day cure)	2,800-3,200 psi	1,500 psi min.
D-570 Absorption	0.1%-0.5%	1.0% max
C-881 Gel Time	15-30 minutes	30 minutes min.
C-881 Brookfield Visc.	1100-4000 cps	100,000 cps max.
RV3 @ 20rpm		
D-2240 Shore D Hardness	68-74	none
C-883 Shrinkage	pass	pass
C-884 Thermal Compatibility	pass	none
AASHTO T-227 Chloride Ion Permeability	0 coulombs	none
Caltran Test 419 Flexural Creep		Three Day 0.0070 inch Seven Day 0.0100 inch
ASTM D-790 Flexural Yield	3,400-5,800	
C-579 Compressive Strength 3 hours w aggregate	3500 psi	n/a
C-579 Compressive Strength 24 hours w aggregate	7000 psi	n/a
ACI 503R Adhesive Strength 24 hrs	>500 psi (concrete failure)	n/a

SURFACE PREPARATION

Surface must be solid, completely clean, and free of oil, wax, grease, sealers, curing compounds, asphalt, paint, dirt, loose surface material and any contaminant that will act as a bond breaker. Weak concrete surfaces must be cleaned down to solid sound concrete by mechanical means. Acid etching or chemical cleaning is not acceptable. Expansion joints and all moving joints in the substrate must be honored through the applied underlayment.

Crack Repair:

Mechanically prepare the surface to a CSP of 3-5. Remove any loose materials. Mask with painter's tape approximately 1 1/2 in. on each side of the in-plane crack, control joint or cold joint. The epoxy mix ratio is 1:1. The activated pot-life is 12 to 15 minutes at 70°F (21°C). Pre-fill deep cracks or joints along the surface area prior to application.

Apply the epoxy with a 3/16 in. V-notch adhesive trowel. Keep trowel angle at a minimum of 60 degrees to the floor. Broadcast to refusal with #20 to #30 silica sand while the epoxy is fresh, but within 15 minutes of applying epoxy. Pull off the painter's tape within 45 minutes. After about one hour, use a nylon bristle brush to remove all loose sand. Allow **CIE 100 EPOXY™** to cure for 12 hours before installing a repair mortar or underlayment.

Bonding Agent:

Repair delaminations, potholes and cracks. Clean surface by shotblasting to remove all contaminants. Remove dust and debris by blowing off with oil-free compressed air. See Limitations for required minimum product and application temperatures. Mechanically mix component A with component B at 1:1 by volume with Jiffy-type mixer and low-speed variable drill 300 rpm for a minimum of 3 minutes. Mix only the quantity that can be used within its gel time.

Apply **CIE 100 EPOXY™** neat at the specified rate. Broadcast select sand to refusal. The sand should be angular grained silica sand or basalt having less than 0.2% moisture and free of dirt, clay etc. The silica sand or basalt should have a minimum MOHS scale hardness of 7 unless otherwise approved. Coverage will be approximately 1 lb. per square foot. Do NOT open to traffic. After a minimum of 12 hours, remove excess sand. Approximately one half of the sand can be cleaned up and reused. Proceed with the applicable underlayment or topping material.

For Customer Service, Call Silpro at 1-800-343-1501

APPROXIMATE COVERAGE

Crack repair:

At 1/16 in. to 1/8 in. thickness, coverage for 1 gallon is 30 to 50 square feet. The average crack or cold joint will take a 3 in. wide ribbon of epoxy. One gallon of epoxy will yield approximately 120 square feet of crack or joint repair.

Bonding Agent:

Bonding agent coverage is approximately 180-240 square feet per kit.

CLEAN UP

Uncured material can be removed using citrus cleaner or other approved solvent. Cured material can only be removed mechanically.

SHELF LIFE

2 years when stored in unopened container.

STORAGE

Always keep in cool/dry place unexposed to sunlight. Prevent product from freezing.

PACKAGING

2 gallon / 3.79 liters (both components in 1 gallon cans)

LIMITATIONS

- Do not thin with solvents.
- Minimum age of concrete must be 7 days prior to applying **CIE100 EPOXY™** as an overlay.
- Minimum age of concrete must be 7 days, depending on drying and curing conditions, prior to applying **CIE100 EPOXY™** as a mortar.
- Minimum substrate and ambient temperature should be 55° and above.
- Minimum epoxy temperature should be 65° before application.

GUARANTEE

Please call **SILPRO**, LLC for copy of guarantee.

CAUTION!

SILPRO offers products that may contain cement, latex, epoxy, and other chemicals. Please review the Safety Data Sheet before the use of this product.

The logo for SILPRO, featuring the word "SILPRO" in a large, bold, black, sans-serif font. The letters are slightly shadowed, giving it a three-dimensional appearance as if it's sitting on a surface.

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