SIL-ACT® Product Data

EP-750

Epoxy Urethane

ADVANCED CHEMICAL TECHNOLOGIES, Inc.

"Protecting the World's Infrastructure"

ABOUT

SIL-ACT® EP-750 is a highly penetrating, two component epoxy healer sealer which when applied to cracked concrete, structurally seals the cracks against moisture and chloride ion intrusion, prolonging the life of the concrete. Its rapid cure time allows traffic to re-open in less than six hours.

BENEFITS

- Excellent Bond Strength
- Moisture Insensitive
- High early strength
- Easy to mix - 1:1 ratio
- Low modulus, super low viscosity
- Epoxy urethane technology
- Color coded for ease of mixing

USES

- Bridge decks
- Parking decks
- Concrete floors
- Columns & Beams in splash zones
- Consolidation of porous & dusting surfaces

Before starting, please refer to this product data sheet and the Material Safety Data Sheet for **SIL-ACT® EP-750.** Copies may be obtained from ACT upon request.

Application

Flood-Coat Sealing Concrete Surfaces:

1. Clean surface by shotblasting or sandblasting to remove all contaminants and open surface and cracks. Remove dust and debris by blowing off with oil-free compressed air.
2. Mechanically mix component A with component B 1:1 by volume with Jiffy type mixer and low-speed variable drill at 300 rpm for a minimum of 3 minutes. Mix only the quantity that can be used within its gel time.
3. Apply neat Sil-Act® EP-750 by pouring or spraying on the surface. Distribute material evenly with a squeegee, roller or broom, maintaining a liquid head over cracks until refusal. Remove all excess material with squeegee or broom.
4. Broadcast select aggregate to properly cover liquid resin. The aggregate should be moisture free and free of dirt, clay, etc.
5. After initial cure of first course, remove extra aggregate.
6. When used as primer or pre-treatment prior to overlay, consult an Advanced Chemical Technologies, Inc. representative.

Minimum Curing Times

Average Temperature of Sealer Component & Substrate

Cure Temp	60-64ºF	65-69ºF	70-74ºF	75-79ºF	80-84ºF	85+ºF
Cure Time	8 hrs	6.5 hrs	5 hrs	3.5 hrs	3 hrs	2.5 hrs

Coverage

Minimum Epoxy & Aggregate Coverage Rates

	Epoxy Rate	**Aggregate Rate**
Tined:	1 gal/60-100 sq. ft.	4-8 lbs/sq. yd. (5.4 kg/m^2)
Smooth:	1 gal/150-200 sq.ft.	4-8 lbs/sq.yd. (7.6 kg/m^2)

TECHNICAL DATA

Property	Requirement	Standard	Result
Viscosity (LVT #1 @ 60 RPM @ 73° F)	≤ 50 cP	ASTM C881	39.5 cP (3.7% Torque)
Slant Shear (14 day moist cure @ 73°F/95% RH)*	≥ 1500 psi	ASTM C882	1649 psi avg
Water Absorption (7 day cure @ 73°, 24 hrs immersed)*	≤ 1.0%	ASTM D570	0.216%
Tensile Strength (Type I Bar @ 2"/min - 7 day cure @ 73°F)*	≥ 2500 psi	ASTM D638	3757 psi avg
Elongation (Type I Bar @ 2"/min - 7 day cure @ 73°F)*	≥ 2 %	ASTM D638	24.7% avg
Gel Time (60 grams @ 73°F)	≥ 30 min	AASHTO M 235	> 2 hr 30 min
Percent Volatile (24 hrs @ 23°C/1 hr @ 100°C of Cured Epoxy)	≤ 30 %	ASTM D 2369	21.77% avg

* Prior to reduction

Limitations

- Do not thin with solvents.
- EP-750 is a vapor barrier after curing.
- Minimum age of concrete must be 28 days before applying as an overlay.
- Minimum application temperature 50°F.
- Shelf - life: 2 years in original unopened container.
- Maximum of one flood coat application.
- Compressed air equipment must have oil/air separator.
- Use in well-ventilated area.
- When installation and cure temperatures are expected below 60°F, consult an Advanced Chemical Technologies, Inc. representative.

Cleanup

EQUIPMENT: Uncured material can be removed with an approved solvent. Cured material can only be removed mechanically.

MATERIAL: Collect with absorbent material. Flush area with water. Dispose of in accordance with local, state and federal disposal regulations.

Packaging

2 gallon kit (1 gallon Part A & 1 gallon Part B)
10 gallon kit (1-5 gallons Part A & 1-5 gallons Part B)
104 gallon kit (1-52 gallons Part A & 1-52 gallons Part B)
520 gallon kit (1-260 gallon Part A & 1-260 gallon Part B)

First Aid

EYE CONTACT: Flush immediately with water for at least 15 minutes. Contact physician immediately.
RESPIRATORY CONTACT: Remove person to fresh air.
SKIN CONTACT: Remove any contaminated clothing. Remove epoxy immediately with a dry cloth or paper towel. Solvents should not be used as they carry the irritant to the skin. Wash skin thoroughly with soap and water.
CURED EPOXY RESINS ARE INNOCUOUS.

Caution

- Part A: Irritant
- Part B: Corrosive
- Product is a strong sensitizer. Use of safety goggles and chemical resistant gloves are recommended.
- Use of a NIOSH/MSHA organic vapor respirator is recommended if ventilation is inadequate.
- Avoid breathing vapors.
- Avoid skin contact.