SIL-ACT® Product Data

EP-700 D

w/Fluorescent Dye Penetrating Epoxy Sealer

ADVANCED CHEMICAL TECHNOLOGIES, Inc.

"Protecting the World's Infrastructure"

ABOUT

SIL-ACT® EP-700 D is a two component low viscosity epoxy polymer formulated to extend the life of concrete surfaces. **SIL-ACT® EP-700 D** penetrates into concrete surfaces and into the smallest of cracks extending the life of both new and old concrete. It forms a protective barrier which effectively protects surfaces from the intrusion of water, salts, ions and water borne contaminants.

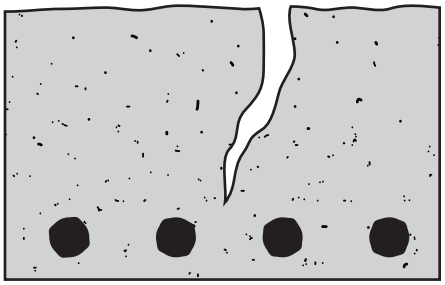
BENEFITS

- Low viscosity
- Fills cracks
- Simple 1 to 1 mixing ratio
- Deep penetrating
- Safer to mix than Methacrylates
- Contains a fluorescent dye for ease of inspection
- Easy to apply with no special equipment required
- Creates a layered barrier against water, salt and chemical intrusion

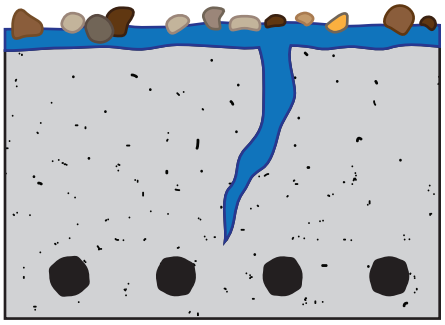
USES

- Sealing cracks
- Waterproofing
- Limit dusting
- On flooring
- On bridge decks
- On parking garages
- On abutments, columns and beams
- Virtually all vertical and horizontal concrete structures

CONCRETE SURFACE SEALER/HEALER



Concrete surface cracking and needing repair.



SIL-ACT® EP-700 D fills deep in to concrete fractures to seal surface. Aggregate is added on top of epoxy before drying to increase traction.

Before starting, please refer to this product data sheet and the Material Safety Data Sheet for **SIL-ACT® EP-700 D.** Copies may be obtained from ACT upon request.

Surface Preparation: Concrete to be treated should be a minimum of 21-28 days old. Surfaces must be clean, dry, and free of all dirt, grease, curing compounds, and other foreign matter. It may be necessary to clean area with high pressure wash, sand or shot blasting depending upon surface conditions.

Mixing Instructions: At time of mixing the temperature of **SIL-ACT® EP-700 D** must be 40 °F (5 °C) or above. Each component should be thoroughly stirred before blending. Mix hardener Part B into the resin Part A for a minimum of three minutes with a low speed electric drill motor equipped with a mixing paddle until completely blended.

Application: SIL-ACT® EP-700 D can be applied with a brush, roller, squeegee or sprayed with a low pressure sprayer. Spread and allow to pond over hairline cracks. Let material penetrate and remove excess. Continue to pond material over cracks for a minimum of 5 minutes to ensure the cracks are filled. *Important:* before **SIL-ACT® EP-700 D** begins to solidify, broadcast aggregate approved by engineer to refusal on treated area to improve skid resistance.

Note: When application equipment utilizes an air compressor, it should be fitted with proper equipment to prevent inclusion of water or oil in air lines.

Application Rate: Coverage may vary depending on the texture and porosity of the surface to be treated.
Broom-finished concrete coverage is 65-80 sq ft/gal
Steel-troweled concrete coverage is 150-200 sq ft/gal

9608 North Robinson Ave. Oklahoma City, OK 73114 (405) 843-2585 Fax: (405)843-2596 www.advchemtech.com

version 003

TECHNICAL DATA

PROPERTY	TEST	SIL-ACT® EP-700 D
Mixing Ratio		1:1 by volume
Viscosity	ASTM D 2393 Brookfield Spindle 62	33.4 cP at 75°F
Bond Strength	ASTM C 882-05 (14 day cure)	2789 psi
Water Absorption	ASTM D 570 (14 day cure)	< 1% by mass
Pull-off Adhesion Strength	ASTM D 7234-05 ASTM D 4541	952 psi (with delamination of concrete) 2187 psi (steel)
Tensile Strength	ASTM D 638 (14 day cure)	4566 psi
Tensile Strength	ASTM D 822 (14 day cure)	4986 psi
Elongation	ASTM D 638 (14 day cure)	2.98%
Elongation	ASTM D 882 (14 day cure)	4.36%
Gel Time	AASHTO T 237 ASTM D 2471-99	1 hour
Percent Volatile	Formulation	< 30%
VOC	ASTM D 2369	178 g/L (1.49 lb/gal)

Limitations
Do not apply if temperatures are below 40°F (5°C). Use a maximum of one flood coat application. Apply to clean dry substrate.

Storage
SIL-ACT® EP-700 D should be stored in a dry environment between 40-95°F (5-35°C). Under these conditions, the shelf life is one year in unopened, damage-free containers.

Technical Services
Complete technical and specification services are available from the manufacturer and their authorized representatives and distributors.

Packaging
2 gallon kit (1 gallon Part A & 1 gallon Part B)
10 gallon kit (5 gallons Part A & 5 gallons Part B)
110 gallon kit (55 gallons Part A & 55 gallons Part B)

First Aid
If clothing is contaminated remove immediately. If contact with eyes, flush immediately with water for 15 minutes, immediately contact physician. For respiratory problems, person should be moved to fresh air. For skin contact, use a dry cloth or paper towel to remove polymer immediately. Wash contact area thoroughly with soap and water. Do not use solvents as they carry the irritant into the skin. Clothing should be washed before reuse.

Caution
Part A – Irritant – eye and skin contact should be avoided.

Part B – Corrosive. Flammable. – Skin contact may cause severe burns. Eye contact should be avoided. Keep away from open flames, sparks or other sources of ignition. Adequate ventilation required to control vapors. It is recommended to use safety goggles and chemical resistant glasses. Do not breathe vapors. If ventilation is inadequate it is recommended to use NIOSH/MSHA approved organic vapor respirator. If clothing is contaminated remove immediately.

Danger! Causes severe eye and skin burns. May cause blindness. Harmful if swallowed. May cause allergic reaction. Do not handle or use until the Material Safety Data Sheet has been read and understood. Do not get into eyes, on skin or clothing. Use safety glasses with side shields and wear protective rubber or polyethylene gloves. Avoid breathing vapor or mist. Keep container closed. Use only in well ventilated locations. In case of contact, wash immediately with soap and water. Remove contaminated clothing and clean before reuse. Wash thoroughly after handling and before eating, drinking, or smoking. Keep away from food and food containers. Avoid hazards by following all precautions found in the Material Safety Data Sheet (MSDS), product labels and technical literature. Please read this information prior to using the product.

Cleaning
All tools and equipment should be cleaned before the system gels. Use methyl ethyl ketone (MEK) when necessary.