

# 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. 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
- Simple 1 to 1 mixing ratio
- Fills cracks
- 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

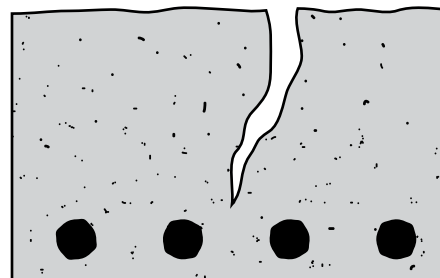
- Sealing cracks
- On flooring
- Waterproofing
- On bridge decks
- Limit dusting
- On parking garages
- On abutments, columns and beams
- Virtually all vertical and horizontal concrete structures

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.

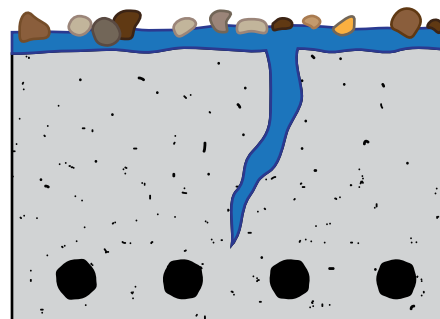
**Surface Preparation:** Concrete to be treated should be a minimum of 21-28 days old. Surfaces must be clean, dry, and free of all dirt, grease, curing compounds, and other foreign matter. It may be necessary to clean area with high pressure wash, sand or shot blasting depending upon surface conditions.

**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.

### 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.

**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.

# TECHNICAL DATA

PROPERTY	TEST	SIL-ACT™ EP-700 D
Mixing Ratio		1:1 by volume
Viscosity	ASTM D 2393 Brookfield Spindle 62	35 cP at 75°F
Bond Strength	ASTM C 882-05 (14 day cure)	2700 psi
Water Absorption	ASTM D 570 (14 day cure)	< 1% by mass
Pull-off Adhesion Strength	ASTM D 7234-05 ASTM D 4541	900 psi (with delamination of concrete) 2200 psi (steel)
Tensile Strength	ASTM D 638 (14 day cure)	4500 psi
Tensile Strength	ASTM D 822 (14 day cure)	4900 psi
Elongation	ASTM D 638 (14 day cure)	3%
Elongation	ASTM D 882 (14 day cure)	4%
Gel Time	AASHTO T 237 ASTM D 2471-99	> 1 hour
Percent Volatile	Formulation	< 30%
VOC	ASTM D 2369	178 g/L (1.48 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.

## WARRANTY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure: That ACT's products are safe, effective, and fully satisfactory for the intended end use. ACT's sole warranty is that the product will meet the ACT's sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. ACT's specifically disclaims any other express or implied warranty of fitness for a particular purpose or merchantability, unless ACT provides you with a specific, duly signed endorsement of fitness for use. ACT disclaims liability for any incidental or consequential damages. Suggestions of use shall not be taken as inducements to infringe any patent.

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