

# SIL-ACT® Product Data

ASTM C881 (Type I, II, IV, V, Grade 1, Class B & C) Compliant

# EP-1000 HM



ADVANCED  
CHEMICAL  
TECHNOLOGIES, Inc.

"Protecting the World's Infrastructure"

## ABOUT

EP-1000 HM is a highly penetrating, two component epoxy healer/sealer. EP-1000 HM is designed to prolong the life of concrete by sealing cracks against moisture and chloride ion intrusion.

## BENEFITS

- Excellent Bond Strength
- Moisture Insensitive
- High early strength
- Easy to mix - 2:1 ratio
- 100% solids, super low viscosity
- High tensile strength for superior retention of aggregates
- Solvent free, low odor
- High modulus

## USES

- Bridge decks
- Parking decks
- Concrete floors
- Columns & Beams in splash zones
- Roadways
- Consolidation of porous & dusting surfaces
- Primer or pre-treatment for epoxy and epoxy urethane overlays

Before starting, please refer to this product data sheet and the Material Safety Data Sheet for EP-1000 HM. Copies may be obtained from ACT upon request.

### APPLICATION

1. Clean surface by shot blasting 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 2:1 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. **BULK:** For Bulk mixing, a positive displacement pump, incorporating a static mixing wand and meter, is recommended.
3. Apply EP-1000 HM 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. After initial cure of first course, remove excess aggregate.
5. When used as primer or pre-treatment prior to overlay, consult an Advanced Chemical Technologies, Inc. representative.

### MINIMUM CURE TIME

#### Average Temperature of Sealer Component & Substrate (°F)

Cure Temp	60-64	65-69	70-74	75-79	80-84	85+
Cure Time	10 hrs	9 hrs	7 hrs	6 hrs	5.5 hrs	4.5 hrs

\*Set times are merely averages, site conditions will dictate actual cure response for open to traffic time.

### COVERAGE

Minimum Coverage Rates:

	Epoxy	Aggregate
Tined	1 gallon/60-80 sq. ft.	4-8 lbs./sq. yd. (5.4 kg/m <sup>2</sup> )
Smooth	1 gallon/100-150 sq. ft.	4-8 lbs./sq. yd. (7.6 kg/m <sup>2</sup> )

### 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.

# TECHNICAL DATA

PROPERTY	TEST	EP-1000 HM
Mixing Ratio		2:1 by volume
Viscosity & Gel Time	ASTM C881	Type I, Grade 1, Class C
Sand Penetration	ODOT 705.25	99.64%
Viscosity	TEX 614-J	110 cPs
Gel Time - 100g Mass (min.)	TEX 614-J	28 minutes
Compressive Strength	TEX 614-J (2-day cure)	6,020 psi
Dry Time (to touch)	ASTM D 679	5hr, 40 min
Wet Strength	TEX 614-J	365 psi
Percent Solids		100%
VOC		0 g/L

## LIMITATIONS

- Do not thin with solvents.
- EP-1000 HM is a vapor barrier after curing
- Minimum age of concrete must be 28 days before applying as an overlay.
- Substrate temperatures must be 50°F and rising prior to installation; 50°F must be maintained minimum of 12 hours post installation or meet curing guidelines stated above for proper cure.
- **Shelf - life:** 2 years in original unopened container.
- Maximum of one flood coat application.
- Compressed air equipment must have oil/air separator.
- **Storage:** 50°F to 95°F in dry and dark conditions
- **Temperature Considerations: IMPORTANT!** Epoxy Resins are temperature sensitive and care should be taken to condition all components to between 65°F to 95°F for a minimum of 24 hrs. prior to mixing and placement. Temperatures colder than stated range increase viscosity of resins and inhibit mixing and flow of materials. Temperatures warmer than stated range decrease viscosity of resins, hasten the cure and reduce the working time. Mixing and curing at less than ideal temperatures, <60°F or >95°F, will require special considerations.

## PACKAGING

3-gallon kit

- Part A: (2) 1-gallon cans
- Part B: (1) 1-gallon can

15-gallon kit

- Part A: (2) 5-gallon pails
- Part B: (1) 5-gallon pail

156-gallon kit

- Part A: (2) 52-gallon drums
- Part B: (1) 52-gallon drum

750-gallon kit

- Part A: (2) 250-gallon totes
- Part B: (1) 250-gallon tote

## CAUTIONS

- 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.
- Use in a well-ventilated area and avoid breathing vapors.
- Avoid skin contact.
- Avoid overspray or mist conditions when applied by sprayer.

## 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.

**IF INGESTED:** Do not induce vomiting. If swallowed give water to drink. Seek medical treatment immediately.

**GENERAL:** Remove contaminated soaked clothing immediately. In the event of persistent symptoms, receive medical treatment.

## CURED EPOXY RESINS ARE INNOCUOUS

## 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 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 patents.

