



ChemMasters

SPECIALTY CONSTRUCTION PRODUCTS

SAFE-CURE & SEAL EPX

WATER BASED EPOXY
CURING & SEALING COMPOUND

P R O D U C T D A T A

DESCRIPTION

Safe-Cure & Seal EPX is a low V.O.C., two-component, water-based epoxy, curing and sealing compound for concrete. It is also suitable for use as an epoxy primer or coating for cured concrete. Safe-Cure & Seal EPX is available in either clear or pigmented formulations. For exterior applications, a special ultraviolet (UV) resistant formulation is available upon request.

USES

- Interior or exterior, horizontal or vertical concrete surfaces
- As a curing for fresh concrete to provide effective hydration of the cement to ASTM C1315 standards
- As an effective sealer / primer for concrete scheduled to receive epoxy or urethane topcoats
- As a high performance coating for formed and poured, tilt wall or precast structures
- As a curing compound and epoxy primer for Duraguard 310CRU in D.O.T. concrete sealing applications including bridge, median barriers and sound barriers

ADVANTAGES

- Cures, seals and primes in a single, economical application
- When applied within 1.5 hours of final finishing over fresh concrete, Safe-Cure & Seal EPX may be topcoated with a pigmented coat of Safe-Cure & Seal EPX or Duraguard 310CRU
- Eliminates costly chemical or mechanical removal of curing membrane prior to application of a polymer coating
- Excellent resistance to chloride ion penetration yet exhibits high level of moisture vapor transmission when fully cured
- Significant improvement in wear and chemical resistance over standard resin or acrylic curing and sealing compounds
- Exceptional tensile and shear bond strengths for improved durability

APPLICABLE STANDARDS

- ASTM C-1315, Type I, Class A & B, Type II, Class A, *Standard Specification For Liquid Membrane-Forming Compounds for Curing and Sealing Concrete*
- ASTM C-309, Types I or II, Class A & B, *Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete*
- AASHTO M-148, Type I or Type II, Class A & B
- NCHRP Report #244, Series II and IV
- Complies with National Volatile Organic Compound Emission Standards for Architectural Coatings, Federal EPA Regulation 40 CFR Part 59
- U.S.D.A. approved, when cured, for incidental contact
- Ohio DOT *Specification for Special Sealing of Concrete Surfaces—Epoxy*
- Available in clear or any Federal Standard colors

TECHNICAL DATA

Weight	9 pounds / gallon (1.07 Kg / Liter)	
Percent Solids	Colors	40-45% Clear 31%
V.O.C. content	<24 gm/L	
Pot Life	30 minutes	
Drying time	6-8 hours	
Recoat time	tack free - up to 72 hours*	
* If recoating is not done within 72 hours, contact ChemMasters for surface preparation recommendations prior to recoat		
Moisture loss (ASTM C-309)	<0.40 gm/cm ² in 72 hrs	
Abrasion resistance		
Taber 1000g/500 cycles/CS 10 wheels	18.1 mg.	
Taber 1000g/1000 cycles/CS 10 wheels	33.1 mg.	
Tensile bond strength - 7 days		
fresh concrete	215-220 psi (1.4-1.5 MPa)	
etched or blasted concrete	350-450 psi (2.4-3.1 MPa)	
Shear bond strength (ASTM C 882) - 7 days		
	1000 psi (21.4 MPa)	



ChemMasters

An American Owned & Operated Company
300 EDWARDS STREET • MADISON, OHIO 44057-3112
(440) 428-2105 • FAX (440) 428-7091 • ORDER LINE: (800) 486-7866 * www.chemmasters.net

Revised: April 8, 2009

PACKAGING

Safe-Cure & Seal EPX is packaged in a 4 gallon unit which consists of

- Part A - 0.8 gallons packaged in a 1 gallon pail
- Part B - 3.2 gallons packaged in a 5 gallon pail

ESTIMATING GUIDE

Coverage rates vary with surface texture and porosity.

Curing & Sealing Fresh Concrete 200 Ft.²/ga (5 M²/L)

Priming & Coating Cured Concrete 200 Ft.²/ga (5 M²/L)

Consult specific D.O.T. specifications or proposal notes for required project coverage rates, which will supercede the above estimates.

MIXING: Safe-Cure & Seal EPX must be mixed before application. **Add all the contents of the Part A pail into the 5 gallon pail containing Part B.**

Use a drill fitted with a mixing blade at a low speed for best results. This minimizes the risk of incorporating excess air into compound.

Mix thoroughly for 3 minutes. Pigmented formulations must have a uniform color with no streaks visible. Upon completion of mixing, allow epoxy to induct, or rest, for five minutes, then remix for one minute. A noticeable fattening (thickening) of the material will be evident. **Use within 30 minutes.**

APPLICATION: A medium nap roller is preferred for surfaces exhibiting an enlarged pore structure, a number of bug holes, honeycombs or voids. Safe-Cure & Seal EPX may be sprayed using a GRACO (GH 533) 30:1 Bulldog Sprayer, or comparable airless, combined with .025 to .040 fan tip, depending on desired output rate.

Hold sprayer tip 6-8 inches (15-20 cm) from the surface of the concrete. Apply uniformly leaving no pinholes or gaps but avoid over applying or puddles.

When using Safe-Cure & Seal EPX to cure concrete on horizontal surfaces, apply after all bleed water has dissipated and application will not mar surface. When curing slip formed concrete, apply immediately following slip form machine.

When sealing or priming steel trowelled already cured concrete, the surface must be cleaned and acid etched and thoroughly rinsed prior to Safe-Cure & Seal EPX application. Exterior concrete must be brush blasted, sand blasted or high pressure washed before application of Safe-Cure & Seal EPX. The surface may be damp when the epoxy is applied but there should be no puddles.

Safe-Cure & Seal EPX usually dries to the touch within 4-24 hours depending on the temperature. Safe-Cure & Seal EPX may be recoated within 48 hours after drying with no additional surface preparation. Extremely low temperatures or high relative humidity may slow curing process. High surface or ambient temperatures will reduce the cure time. When applying a second coat be sure that the first coat of Safe-Cure & Seal EPX is tack-free. Ensure there are no contaminants that could interfere with the adhesion on the surface.

CLEAN-UP

Clean tools and equipment used to apply Safe-Cure & Seal EPX with soap and water prior to drying.

LIMITATIONS

- When being used as a curing compound, Safe-Cure & Seal EPX **must** be applied within 1.5 hours of the finishing operation.
- State D.O.T. specifications pertaining to coverage rates supercede those recommended here. Consult project specifications or proposal notes for state requirements.
- Safe-Cure & Seal EPX is not to be used as a bond breaker on tilt wall construction.
- For optimum results, condition material to 60°-75°F (15°-24°C) prior to mixing and application. This conditioning of the material is extremely important when the ambient temperature is above 90°F (32°C).
- Safe-Cure & Seal EPX is not intended for use when concrete surface temperatures are below 50°F (10°C).
- Increasing mixed mass (volume) decreases working time (pot life).

STORAGE

Protect this product from freezing at all times. Store at 50°-70°F. (10°-21°C.) in unopened containers out of direct sunlight or precipitation.

Cautions Keep out children's reach

Make certain that the most current versions of the product data sheet and MSDS are being used. Go to www.chemmasters.net or contact ChemMasters customer service at 1.800.486.7866 to verify the most current version.

Proper application is the responsibility of the user. ChemMasters can only make technical recommendations and cannot provide quality control on the jobsite.

This Product is Formulated and Labeled for Industrial and Commercial Use Only

FOR BEST RESULTS AND SAFEST USAGE, USER IS SPECIFICALLY DIRECTED TO CONSULT THE CURRENT MATERIAL SAFETY DATA SHEET AND PACKAGE LABEL FOR THIS PRODUCT

We warrant our products to meet our published specifications and to be free from defects in materials and workmanship to the acceptable quality levels defined in these specifications. If acceptable quality levels are not specified, the acceptable quality levels will be those normally supplied by us for the product. We make no guarantee of the results to be obtained from the use of our products. The determination as to the adaptability of any of our products to the specific needs of the Buyer is solely Buyer's prerogative and responsibility. We are glad to offer suggestions on the use of our products. Nevertheless, there are no warranties given except such expresses warranties offered in connection with the sale of a particular product. Our liability shall be limited to replacement of, or refund of an amount not to exceed the purchase price attributed to, the goods as to which such claim is made. Our selection of one of these alternatives shall be Buyer's exclusive remedy. IN NO CASE SHALL WE BE LIABLE FOR CONSEQUENTIAL OR SPECIAL DAMAGES, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, GUARANTEES, CO-CONDITIONS AND REPRESENTATIONS, EITHER EXPRESSED OR IMPLIED, WHETHER ARISING UNDER ANY STATUTE, COMMON LAW, USAGE OR TRADE, COURSE OF DEALING OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.