



ChemMasters

SPECIALTY CONSTRUCTION PRODUCTS

POLYWELD-EPX^{CI}

BONDING AGENT AND
REINFORCEMENT PROTECTION
WITH MIGRATING CORROSION INHIBITOR

P R O D U C T D A T A

DESCRIPTION

PolyWeld-EPX^{CI} is a 3-component, solvent-free, moisture-tolerant, epoxy modified, cementitious product specifically formulated as a bonding agent and an anti-corrosion coating.

USES

- An anti-corrosion coating for reinforcing steel in concrete restoration
- Added protection of reinforcing steel in areas of thin concrete cover
- Bonding agent for repairs to concrete and steel
- Bonding agent for lacing fresh, plastic concrete to existing hardened concrete.

ADVANTAGES

- Excellent adhesion to concrete and steel
- Effective barrier against penetration of water and chlorides - not a vapor barrier
- Long open time (up to 24 hours)
- Bonding agent & corrosion protection in one product
- Can be used exterior
- Contains corrosion inhibitors
- Excellent bonding bridge for cement or epoxy based repair mortars
- High strength
- Unaffected by moisture when cured
- Spray, brush or roller application
- Non-flammable, solvent free.

COVERAGE

Bonding agent: Smooth, even substrate: 80 sq.ft./gal (20 mils thickness). Coverage will vary depending on substrate profile and porosity.

Reinforcement Protection: 40 sq. ft./gal. (20 mils thickness) (2 coats)

POTLIFE

Approximately 60 minutes

PACKAGING

Part A	1.8 gallons Resin (16.2 lbs)
Part B	0.2 gallons Hardener (2.0 lbs)
Part C	50 pounds of powder

PROPERTIES

DENSITY (MIXED) 125 pound per cubic foot

WATER PERMEABILITY

at 10 bar (145 psi)	8.92 x 10 ⁻¹⁵ ft./sec.
Control	7.32 x 10 ⁻¹⁰ ft./sec.

WATER VAPOR DIFFUSION COEFFICIENT

110

CARBON DIOXIDE DIFFUSION COEFFICIENT CO

14000

BOND STRENGTH (ASTMC882)

14 days moist cure, plastic concrete to hardened concrete:

Wet on Wet	2800 psi (19.3 MPa)
24hr.open time	2600 psi (17.9 MPa)

BOND OF STEEL REINFORCEMENT TO CONCRETE (PULLOUT TEST)

PolyWeld-EPX ^{CI}	625 psi (4.3 MPa)
Epoxy coated	510 psi (3.5 MPa)
Plain Reinforcement	575 psi (3.96 MPa)

COLOR

Concrete gray

SURFACE PREPARATION

Cementitious substrates should be cleaned and prepared to achieve a laitance and contaminant free open textured surface by blastcleaning or equivalent mechanical means. Substrate must be saturated surface dry (SSD) with no standing water.

Steel should be cleaned and prepared thoroughly to white metal by blast cleaning.



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MIXING

Shake contents of both Component A and B. Empty entire contents of both Components into a clean, dry mixing pail. Mix thoroughly for 30 seconds with a paddle drill on a low speed (400-600 rpm). Slowly add the entire contents of Component C while continuing to mix for 3 minutes until blend is uniform and free of lumps. Mix only that quantity that can be applied within its pot life.

APPLICATION

As a bonding agent

Apply with a stiff bristle brush or broom. Spray apply with hopper gun or similar equipment. For best results, work the bonding slurry well into the substrate to ensure complete coverage of all surface irregularities. Apply the freshly mixed patching mortar or concrete wet on wet, or up to the maximum recommended open time, onto the bonding slurry. Minimum thickness as a bonding agent is 20 mils.

For corrosion protection for reinforcing steel, apply with a stiff bristle brush at a rate of 80 square feet per gallon (20 mils). Take special care to coat the underside of totally exposed steel. Allow first coating to dry 2-3 hours @ 73°F, then apply a second coat at the same coverage. Allow second coat to dry again before the repair mortar or concrete is applied. Minimum thickness to protect reinforcement steel is 40 mils (2 coats, 20 mils each).

Maximum recommended open time between application of bonding agent or corrosion protection coating and patching mortar or concrete is dependent on the ambient temperature. Do not allow the area to be wet before concrete or repair material is applied.

95°F (35°C)	6 hours
68°F (20°C)	12 hours
50°F (10°C)	16 hours
40°F (5°C)	24 hours

CLEAN-UP

Clean tools and equipment with soap and water before material hardens.

LIMITATIONS

Substrate and ambient temperature should be a minimum 40°F (5°C) Maximum 95°F (35°C)

Protect material from freezing

Shelf life is one year in unopened containers, stored in dry, warm area.

Maximum open time before material is placed over **Polyweld EPX^{ci}** is 24 hours at 40° F (4° C) and 6 hours at 95° F (35° C)

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.