



4225 W. Ogden Ave. • Chicago, IL 60623 • Phone: (773) 522-1900

# SIKA ARMATEC® 110 EPOCEM

## Bonding Agent and Reinforcement Protection

### HOW TO USE

#### DESCRIPTION

Sika Armatec 110 EpoCem is a 3-component, solvent-free, moisture-tolerant, epoxy-modified, cementitious product specifically formulated as a bonding agent and an anti-corrosion coating.

#### WHERE TO USE

- ▲ As an anti-corrosion coating for reinforcing steel in concrete restoration
- ▲ As a bonding agent for repairs to concrete and steel
- ▲ As a bonding agent for placing fresh, plastic concrete to existing hardened concrete.

#### ADVANTAGES

- ▲ Excellent adhesion to concrete and steel
- ▲ Long open time - up to 24 hours
- ▲ Can be used exterior on-grade
- ▲ Excellent bonding bridge for cement or epoxy based repair mortars
- ▲ Spray, brush or roller application

#### SURFACE PREPARATION

**Cementitious substrates:** Should be cleaned and prepared to achieve a laitance and contaminant-free surface. Substrate must be saturated surface dry (SSD).

#### MIXING

Shake contents of both Component 'A' and Component 'B'. Empty entire contents of Components 'A' and 'B' into a clean, dry mixing pail. Mix thoroughly for 30 seconds with a Sika paddle on a low speed (400-600 rpm) drill. Slowly add the entire contents of Component 'C' while continuing to mix for 3 minutes until blend is uniform.

#### APPLICATION

**As a bonding agent** - Apply by stiff-bristle brush or broom. Spray apply with Goldblatt Pattern Pistol or equal equipment. For best results, work the bonding slurry well into the substrate to ensure complete coverage of all surface irregularities

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### COVERAGE AND PACKAGING

**Bonding agent:** 80 sq. ft/gal.  
**Reinforcement protection:** 40 sq. ft/gal.  
*(Coverages are approximate)*

1.65 gal. unit (22.7 fl. oz. + 57.6 fl. oz. B + 4 bags @ 5.5 lb.) Factory-proportioned units in a pail.



#### TYPICAL DATA FOR SIKA ARMATEC 110 (Material and curing conditions @ 73F and 50% R.H.)

<b>COLOR</b>	Concrete gray
<b>POT LIFE</b>	Approximately 90 minutes
<b>COMPRESSIVE STRENGTH</b> (ASTM C-109)	3 days 4500 psi (31.0 MPa) 7 days 6500 psi (44.8 MPa) 28 days 8500 psi (58.6 MPa)
<b>FLEXURAL STRENGTH</b> (ASTM C-348)	28 days 1250 psi (8.6 MPa)

#### IMPORTANT DATA FOR SIKA ARMATEC 110 AS A CORROSION PROTECTIVE COATING

<b>WATER</b>	
Water Permeability at 10 bar (145 psi) Control	8.92 x 10 <sup>-15</sup> ft./sec. 7.32 x 10 <sup>-10</sup> ft./sec.
Water vapor diffusion coefficient μ H <sub>2</sub> O	110

<b>CARBON DIOXIDE</b>	
Carbon dioxide diffusion coefficient μ CO <sub>2</sub>	14000

**TEST DATA: Time-to-Corrosion Study**  
 ▲ Sika Armatec 110 more than tripled the time to corrosion  
 ▲ Reduced corrosion rate by over 40%

#### IMPORTANT DATA FOR SIKA ARMATEC 110 AS A BONDING AGENT

<b>BOND STRENGTH (ASTM C882)</b>	
<b>14 days moist cure, plastic concrete to hardened concrete:</b>	
Wet on Wet	2800 psi (19.3 MPa)
24hr.open time	2600 psi (17.9 MPa)
<b>Bond of Steel Reinforcement to Concrete (Pullout Test):</b>	
Sika Armatec 110 coated	625 psi (4.3 MPa)
Epoxy coated	508 psi (3.5 MPa)
Plain Reinforcement	573 psi (3.95 MPa)