

ECB – Electro-Chemical Barrier

Brush or spray applied,
water based,
single component,
anti-corrosion coating and
long open time bonding primer.

WHERE TO USE
Protect reinforcing steel
and metal
embedded in concrete
against corrosion.

PERFORMANCE CHARACTERISTICS

Multiple defenses

- Barrier coating.
- Corrosion inhibitor.
- Prevent anode transfer.

Breathability

- Water vapor permeable.

Ease of use

- Single component, water based technology.

Stable

- Does not produce destructive by-products.

Long open time

- Up to 30 days on steel before covering.
- Up to 5 days on concrete before covering.

Thermal compatibility

- Will not cause delamination due to temperature change.

Ease of application

- Spray apply to increase production.

Ease of clean up

- Clean equipment with water.

Environmentally friendly

- Water based, low odor, non-flammable.

SURFACE PREPARATION

Reinforcing Steel

- Mechanically remove all scaling rust from metal.
- Remove concrete around rebar to provide a minimum 3/4 inch clearance.
- Remove concrete along the length of the bar until the exposed bar shows no sign of corrosion activity.

Concrete

- Remove loose and deteriorated material, laitance, dirt, dust, oil and any surface contaminants that will inhibit proper adhesion.

PRIMING

- *ECB* is a priming treatment.

MIXING

- Stir or mechanically mix using a low speed drill (400 - 600 rpm) until homogeneous.

APPLICATION

- Brush or spray apply a uniform 7 mils. wet to all exposed steel.
- For spray applications use a Graco 3500 or equivalent. Refer to *Conproco Black Book*.
- Brush or spray apply a uniform 7 mils. wet to prepared concrete surface when using as a bonding primer.
- In severe environments a 2 coat application on steel is recommended.

CURING

- Allow *ECB* to dry for a minimum of 30 minutes @ 70°F and be dry-to-touch before placing covering material or applying a second coat.

CLEAN UP

- Clean tools and equipment with water after use.

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COVERAGE/YIELD

Packaging/Reinforcing Steel

- 60 oz. – 425 ft. of #8 rebar.
- 1 gal. – 900 ft. of #8 rebar.
- 5 gal. – 4500 ft. of #8 rebar.

Packaging/Concrete

- 60 oz. – 110 ft.² @ 7 mils.
- 1 gal. – 230 ft.² @ 7 mils.
- 5 gal. – 1150 ft.² @ 7 mils.

PRODUCT HANDLING

Packaging

- 60 oz., 1 and 5 gallon plastic containers.

Shelf Life

- 18 months in unopened containers.

Storage

- Protect from freezing.
- Transport and store in cool, clean, dry conditions in unopened containers.
- High temperature will reduce shelf life.

LIMITATIONS

- Do not apply unless substrate and ambient temperature can be maintained at a minimum of 40°F for 24 hours. Refer to ACI Cold Weather Application Guidelines.
- Repair zone should be cleaned of dirt and dust immediately prior to placement of concrete or repair material.
- Metal to be coated must be free of all scaling rust at the time of application.

HEALTH AND SAFETY

- Avoid contact with eyes.
- Do not ingest.
- Refer to Material Safety Data Sheet (MSDS) for additional information.

FIRST AID

- In case of eye contact, flush immediately with a high volume of water for at least 15 minutes and contact a medical professional.

DISPOSAL

- Dispose of material in accordance with local, state or federal regulations.

TECHNICAL DATA

Physical state and appearance		Thick gray mastic
Base		Aqueous
pH		9.0 - 9.5
Percent solids by weight		58%
Flash point	ASTM D56	>200°F Seta cc
Density of liquid coatings	ASTM D1475	8.4 lbs./gal.
Water vapor transmission	ASTM E96	4 perms @ 10 mils.
Protection of embedded rebar	NCHRP 278	
Uncoated		Corrosion @ 10 - 12 cycles
Coated with ECB		No corrosion after 50 cycles
Corrosion of embedded steel reinforcement	ASTM G109	No corrosion after 80 cycles
Resistivity – Wiss, Janney, Elstner procedure		5.3 x 10 ⁷ ohm/cm
Accelerated weathering – QUV	ASTM G154	2000 hours – UV-B cycled with condensation – no effect
Direct tensile strength	ACI 503R	300 psi
Slant shear bond strength	ASTM C882	900 psi

FOR PROFESSIONAL USE ONLY

Conproco Corp. warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current technical data sheet if used as directed within shelf life. User determines suitability of product for use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. January 2005.

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