



# THE EUCLID CHEMICAL COMPANY

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## CORR-BOND



### EPOXY/PORTLAND CEMENT BONDING AGENT STEEL REINFORCEMENT PROTECTION



**CORR-BOND** is a 3 part bonding agent composed of a specialty water based epoxy and selected cementitious components. CORR-BOND provides an extended open time allowing for placement of concrete toppings and repair mortars up to 24 hours later\*. The product also provides significant protection against steel reinforcement corrosion when applied to properly prepared rebar. \*Depending upon temperature

#### PRIMARY APPLICATIONS

- Bonding agent for floor toppings and concrete repair
- Bond coat for concrete repair mortars
- Corrosion protection for steel reinforcement
- Exterior and interior concrete
- Parking and bridge structures
- Marine structures
- Retaining and parapet walls

#### FEATURES/BENEFITS

- Excellent adhesion to concrete and steel
- Allows flexibility in topping placement, including traffic from ready mix trucks when tack free
- Bonding agent plus corrosion protection-one product does both
- Non-vapor barrier for slab on grade applications
- Easy to mix and apply
- Allows bonding agent application before forming of vertical and overhead repairs

#### PACKAGING/YIELD

CORR-BOND is available in 3.5 gal (13.25 L) and 1 gal (3.8 L) kits. A kit consists of Part A (resin), Part B (hardener) and Part C (powder).

All components of the one gallon kit are contained in a single plastic pail.

Packaging for the 3.5 gallon unit consists of a box containing both Part A & Part B and a separate bag for the Part C.

	1 gal (3.8 L)	3.5 gal (13.25L)
Part A	0.10 gal (0.38L)	0.40 gal (1.5 L)
Part B	0.25 gal (0.95L)	1.0 gal (3.8 L)
Part C	10.7 lb (4.9 kg)	41 lb (18.6 kg) bag

#### TECHNICAL INFORMATION

Typical Engineering Data @ 70°F (21°C)

**Consistency:** brushable coating

**Pot Life:**..... 90 minutes

**Open time:**..... 12 hours

**Application thickness:** 20 mils (0.5 mm) minimum

**Slant Shear Bond to Concrete (ASTM-C 882)**

Open Time <sup>(1)</sup>	Slant Shear Strength
0 hours	2,000 psi (13.8 MPa)
12 hours	1,950 psi (13.4 MPa)

Direct Tensile Bond to Concrete 3" (75 mm) cores (Germann bond test)

Open Time <sup>(1)</sup>	Tensile Strength
0 hours	400 psi (2.8 MPa)
12 hours	350 psi (2.4 MPa)

<sup>(1)</sup> Open Time: Time from application of the CORR-BOND on 14 day old, hardened concrete until placement of the fresh concrete topping over the CORR-BOND.

#### Bond to Steel, Patti Adhesion Test

7 day bond strengths

Sandblasted Steel:	900 psi (6.2 MPa)
Wire Wheel Preparation:	650 psi (4.5 MPa)
Oxidized Steel:	450 psi (3.1 MPa)

**Weatherometer Testing**, (ASTM G 93), 2000 hours no cracking or peeling over steel

**Shelf Life:** 1 year in original, unopened package.

#### Appearance

When mixed and placed per directions, the product has a cementitious coating appearance with a dark gray color.

#### SPECIFICATIONS/COMPLIANCES

- All local and national V.O.C. compliancy laws for reduced solvent emissions

## COVERAGE

### MINIMUM thickness requirements

	1 <sup>st</sup> Coat	2 <sup>nd</sup> Coat
Bonding	80 ft <sup>2</sup> /gal (2.0 m <sup>2</sup> /L)	N.A.
Corrosion Protection	80 ft <sup>2</sup> /gal (2.0 m <sup>2</sup> /L)	80 ft <sup>2</sup> /gal (2.0 m <sup>2</sup> /L)

**Note:** Application coverage rate is highly dependent on surface profile. For a highly profiled surface exceeding 1/8th inch, coverage rates can be expected to be closer to 40' to 50' ft<sup>2</sup>/gal.

Application Temperatures	Maximum Open Time*
95°F (35°C)	6 Hours
68°F (20°C)	12 Hours
50°F (10°C)	16 Hours
40°F ( 5°C)	24 Hours

\*If the time limit is exceeded, a fresh coat of CORR-BOND must be applied before placement of the repair mortar.

\*If the CORR-BOND becomes wet before the repair mortar topping is placed (rain, flooding, etc.), it must be completely removed and a fresh coat applied to the substrate.

## DIRECTIONS FOR USE

### Surface Preparation:

**Bonding**-New concrete must be clean and well textured prior to use of CORR-BOND. Remove all curing compounds and form release agents.

Old concrete must be clean and rough. All oil, dirt, debris, paint and unsound concrete must be removed. The surface must be prepared mechanically using a scabber, bushhammer, shotblast or other suitable equipment which will give a surface profile of a minimum 1/8" (3 mm), exposing the coarse aggregate of the concrete. The final step in cleaning should be the complete removal of all residue.

**Substrate must be Saturated Surface Dry (SSD) with no standing water.**

**Corrosion Protection**-For maximum corrosion protection, steel reinforcement must be cleaned to white metal. Preparation methods include wire wheel cleaning.

**Mixing**-Pre-shake Part A before combining Part A with Part B. Add the entire container of Part B to all of Part A. Mix with a mechanical (drill) mixer for 2-3 minutes until uniform. Add Part C (powder) and blend until the powder is completely wetted and lump free. A mortar mixer may be used for large jobs. Apply immediately.

### Application:

**Bonding**-Substrate and ambient temperatures must be between 40°F (5°C) to 95°F (35°C) and the material temperature should be between 65°F (18°C) to 85°F (29°C) for best results. CORR-BOND is applied by stiff bristle broom or "hopper gun" at an even coverage rate of no more than 80 ft<sup>2</sup>/gal (2.0 m<sup>2</sup>/L). For large areas, a mechanical scrubber is recommended. Final film thickness must be a minimum of 20 mils. Fresh concrete or repair mortar must be placed over CORR-BOND within the maximum allowable time.

**Corrosion Protection**-For maximum protection of steel reinforcement, apply CORR-BOND in two coats, with each coat brushed on at 80 ft<sup>2</sup>/gal (2.0 m<sup>2</sup>/L). After the first coat is placed, allow to dry tack free before the second coat is placed. Total film thickness must be a minimum of 40 mils. Care should be taken to ensure the steel is completely coated. Fresh concrete or mortar must be placed over the CORR-BOND within the maximum allowable time.

**Shotcrete**: Wait 4 to 8 hours after CORR-BOND application before the shotcrete is applied. Early shotcreting may dislodge the CORR-BOND coating.

### CLEAN-UP

Clean tools and equipment with water before material dries.

### PRECAUTIONS / LIMITATIONS

- For best results, place at ambient and material temperatures of 50°F (10°C) to 80°F (27°C). Material temperature should be between 65°F (18°C) to 85°F (29°C).
- Maximum open time before material placement is 24 hours at 40°F (4°C) and 6 hours at 95°F (35°C).
- Keep from freezing during storage.



Corr-Bond-9.05

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