



DURALPREP A.C.

BONDING AGENT AND ANTI-CORROSION COATING

DESCRIPTION

DURALPREP A.C. is a three-component bonding agent and anti-corrosion coating for reinforcing steel. It is a pre-proportioned kit that contains a water-based epoxy, combined with portland cement that can be used as a bonding agent for placing fresh concrete and repair mortars to existing concrete substrates. DURALPREP A.C. contains a corrosion inhibitor which protects reinforcement when used as an anti-corrosion coating for steel. DURALPREP A.C. has a long open time, is non-flammable, VOC compliant, and does not form a water vapor barrier after cure.

PRIMARY APPLICATIONS

- Bonding agent for fresh concrete to existing concrete
- Concrete repairs with cement or epoxy mortars
- Anti-corrosion coating for steel reinforcement
- Exterior or interior
- On grade or above grade applications

FEATURES/BENEFITS

- Long open time
- Contains a corrosion inhibitor
- Ease of application (brush/spray)

TECHNICAL INFORMATION

PROPERTY	RESULT
Mix Ratio	1 gal A:1 gal B:36 lbs C (3.8 L:3.8 L:16 kg)
Contact Time	Up to 24 hours depending on temperature
Pot Life, 2 gal (7.6 L) unit, minutes	35 to 40
Compressive Strength, psi (MPa) ASTM C 109	3 days: 2,900 psi (20 MPa) 7 days: 4,100 psi (28 MPa) 28 days: 4,500 psi (31 MPa)
Flexural Strength @28 days, psi (MPa) ASTM C 348	> 1,280 (8.8)
Shore D Hardness ASTM D 2240	90 to 95
Bond Strength, 7 days, psi (MPa) ASTM C 882	1 hr open time: 2,480 (17.1) 24 hr open time: 2,700 (18.6)
Split Tensile Strength, 28 days, psi (MPa) ASTM C 496	> 600 (4.1)
Water Vapor Permeability ASTM E 96	0.16 grains/ft ² /hr
Appearance/Color	Concrete Gray

Properties determined at laboratory conditions.

PACKAGING

DURALPREP A.C. is packaged in 3.75 gal (14.2 L) kits and 2/1 gal (3.8 L) units/case.

SHELF LIFE

1 year in original, unopened package

COVERAGE

One 3.75 gal (14.2 L) kit of DURALPREP A.C. will cover approximately 250 ft² (23.2 m²), per coat.

One 1 gal (3.8L) unit will cover approximately 65 ft² (6 m²), per coat.

Note: Coverage rates are approximate and for estimating purposes only. Test the area prior to application to determine effective coverage rates. Surface temperature, porosity, and texture will determine actual material requirements.

SPECIFICATIONS/COMPLIANCES

Canadian MTQ

DIRECTIONS FOR USE

Surface Preparation: The surface must be structurally sound, free of grease, oils, curing compounds, efflorescence, laitance and any other contaminants that would interfere with adhesion. All previous coatings on the substrate must be removed. **Concrete:** Smooth, precast and formed concrete surfaces must be cleaned, roughened and made absorptive by mechanical abrasion. All coatings must be removed completely to provide an absorptive surface. Remove excess moisture, drips and puddles from the surface. The surface should be saturated, surface-dry (SSD) with no standing water prior to application. **Steel:** All oils, greases, dirt, old coatings or chemical contaminants must be removed. All steel surfaces should be blasted to a "NEAR WHITE" metal finish using clean dry blasting media.

Mixing: Mix one full kit at a time. DURALPREP A.C. must be mechanically mixed with a slow speed motor and mixing blade to thoroughly disperse all ingredients. A 1/2" (13mm) drill motor and a "Jiffy" mixer may be used. Premix each container (Parts A & B) separately. Pour Part A and Part B into a clean container. Start mixer and mix at slow speed for 30 to 45 seconds. Do not aerate the mix. While mixing gradually, add all of the Part C powder into the mixed liquid to produce a smooth lump free consistency. Mix thoroughly for approximately 3 minutes.

Application: Air and surface temperature must be above 45°F (7°C) and rising. Maximum temperature should not exceed 90°F (32°C). The approximate working life is 30 to 45 minutes depending on the temperature.

Bonding Agent: Apply 1 coat, a minimum of 20 mils, of DURALPREP A.C. to the SSD surface using a stiff bristle brush or spray with a hopper gun at a rate of 60 - 80 ft²/gal (1.5 - 2.0 m²/L) for a bonding agent. Allow to fully dry (approximately 1 hour) before placing concrete. DURALPREP A.C. has an open time of from 1 to 24 hrs at 75°F (24°C).

Anti-Corrosion Coating: Coat the exposed reinforcing steel, making sure to coat the underside portion of the steel. Apply 2 coats at 20 mils each by brush or spray, allowing 3 to 6 hours between applications. Place fresh mortar or concrete within the open time of the second coat of DURALPREP A.C. 1 to 24 hrs at 75°F (24°C).

CLEAN-UP

Clean tools and equipment with water immediately following use. Clean drips with water while still wet. Dried DURALPREP A.C. will require mechanical abrasion for removal.

PRECAUTIONS/LIMITATIONS

- Mix only one full kit at a time.
- Do not mix for longer than 3 minutes.
- Do not allow components to freeze.
- Do not apply at temperatures below 45°F (7°C), or above 90°F (32°C).
- Do not add water to mix.
- Protect from wind and excessive heat. These conditions will shorten the open time.
- Maximum open time: 12 hours @ 90°F (32°C), 24 hours @ 75°F (24°C), 30 hours @ 45°F (7°C). If the application window is missed, another coat of Duralprep A.C. will need to be applied.
- Store at temperatures between 65°F and 80°F (18°C to 27°C).
- Protect from moisture.
- In all cases, consult the Safety Data Sheet before use.

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