MIGRATORY CORROSION INHIBITOR (MCI®) PRODUCTS FOR CONCRETE

MCI® Architectural Coating

PRODUCT DESCRIPTION

MCI Architectural Coating is a unique, water-based primer/topcoat designed to provide protection in harsh, outdoor applications. MCI Architectural Coating provides three main benefits:

- acts as a sealer, preventing penetration of water, chloride ingress, and carbonation of the concrete;
- improves the appearance of buildings and structural elements when applied;
- provides a source of corrosion inhibitors when applied directly to reinforcement and ormetal.

MCI Architectural Coating is superior to many coatings containing inorganic pigments because its resistance has been improved by replacing pigments and metal oxides with more effective corrosion inhibitors. The special combination of additives provides a composite polymer barrier that significantly prolongs the service life of reinforced concrete, protecting both concrete and reinforcement from corrosive electrolytes and aggressive environments.

MCI Architectural Coating is a fast drying, thrixotropic coating that is resistant to sagging and running. It forms a tough, non-flammable, protective barrier that is thermally stable (-40°F to +400°F or -40°C to 204°C) once cured. MCI Architectural Coating is resistant to ultraviolet radiation. It provides optimal outdoor performance without cracking or chipping upon prolonged exposure to sunlight. MCI Architectural Coating is a clear coating that allows visual inspection of the surface after application, but can be easily tinted with pigment dispersions. Custom colors are available.

FEATURES

- Contains Migratory Corrosion Inhibitors
- UV resistant when cured
- Fast-drying
- Forms non-flammable, protective barrier
- Optimal outdoor performance
- Available in custom colors
- Has excellent adhesion to concrete, masonry, plastic, etc.
- Protects steel, aluminum, galvanized steel, stainless steel, copper, etc.

WHERE TO USE

- All reinforced, precast, prestressed, post-tensioned or marine concrete structures
- Concrete piers, piles, pillars, pipes and utility poles
- Restoration and repair of all reinforced concrete commercial and civil engineered structures

ADVANTAGES

- MCI Architectural Coating offers engineers, owners, contractors, DOTs and government agencies a time proven corrosion inhibiting technology that will extend the life of all reinforced concrete structures
- Easily applied by spray, roller, squeegee or paint brush to any concrete surface, reducing the high cost of labor and equipment
- Non-toxic, water-based and non-flammable
- Safe and environmentally friendly
- Enhances the durability of reinforced concrete and increases surface abrasion resistance
- Blocks carbonation and chloride ion intrusion
- Resistant to alkali attack

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Environmentally Safe VpCI®/MCI® Technologies

SURFACE PREPARATION

Surface should be dry, sound, clean and free of all dirt, oil, grease efflorescence, sealers, coatings, membranes and asphalt. Cleaning may be done by steam cleaning, waterblasting or sandblasting.

Note: For additional corrosion protection MCI-2020 or MCI-2020 M can be applied prior to coating. See product data sheet application instructions.

APPLICATION

Do not alter or dilute the material. Do not use on wet or damp substrates. Power agitate to a uniform consistency using a "squirrel cage" type mixer, hand held drill, or other equivalent method.

Apply 4-7.5 mils (100-187.5 microns) wet film thickness via spray, brush or roller.

Conventional Spray

Manufacturer	Gun Model	Tip/Aircap Combination
DeVilbiss	MBC or JGA	704E
Binks	#18 or # 62	66PE

Fluid hose should be 3/8" (0.95 cm) I.D. with a maximum length of 50 feet (15.2 m). Pot should always have dual regulation and be kept at same elevation as spray gun.

Airless

Manufacturer	Gun Model	Tip/Aircap Combination
Graco	205-591	Bulldog
Binks	Model 500	Mercury 5C
DeVilbiss	JGN-501	QFA-519

Hose should be 3/8" (0.95 cm) I.D. minimum, but a 1/4" (0.64 cm) I.D. whip end section may be used for ease of application. A maximum length of 100 feet (30.5 m) is suggested. Best results will be obtained using a 0.013"-0.017" (0.3-0.4 cm) tip at 1200-1700 psi (83-117 bar).

Note: Nylon or Teflon type packings are available from pump manufacturer and are highly recommended.

Note: Similar equipment may be suitable

FOR INDUSTRIAL USE ONLY

KEEP OUT OF REACH OF CHILDREN

KEEP CONTAINER TIGHTLY CLOSED

NOT FOR INTERNAL CONSUMPTION

CONSULT MATERIAL SAFETY DATA SHEET FOR MORE INFORMATION

APPLICATION CONSIDERATIONS

The substrate and ambient temperature should be above freezing and below 125°F (50°C). Do not apply if the temperature is expected to fall below freezing within 12 hours. Dewpoint should be more than 5°F (2°C) less than air temp for application.

For new concrete, apply MCI Architectural Coating after the concrete has cured to a minimum of 14 days. For optimum results, allow concrete to cure 28 days or longer.

TEST DATA

MCI Architectural Coating decreases the corrosion rate of metal reinforcement caused by chlorides by four-fold, based on Cortec® Project #00-285-4431. When applied to SAE 1010 carbon steel it protects 168 hours in salt spray chamber (ASTM B-117) and over 1000 hours in humidity chamber (ASTM D-1748). When applied to aluminum, it protects over 1000 hours in both salt spray and humidity chambers at 2 mil DFT.

PACKAGING AND STORAGE

MCI Architectural Coating is available in 5 gallon (19 liter) pails, 55 gallon (208 liter) metal drums, liquid totes and bulk. Keep product from freezing.

TYPICAL PROPERTIES

Appearance	Liquid, various colors
pH	8.3-9.0 (Neat)*
Density	8.0-10.5 lb/gal* (0.96-1.26 kg/l)*
Non-volatile Content	35-50%*
Dry Film Thickness (per coat)	1.5-3.0 mils (37.5-75 microns)
Theoretical Spread Rate	535-641 ft^2/gal (13-16 m^2/l)*
Dry to Touch Time	30 minutes @ 77°F (25°C) at 2 mils
Fully Cured	7 days@ 77°F (25°C), 55% RH
Temperature Stability	45°-90°F (7°-32°C)
VOC (ASTM D-3960)	1.5-1.7 lb/gal (203 g/l)*
Viscosity	700-3,000 cps (6 rpm/#2)**

*varies per color

**varies per customer request

LIMITED WARRANTY

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