

# MCI® CorShield®



## PRODUCT DESCRIPTION

MCI CorShield provides excellent protection in outside storage as well as offering excellent corrosion resistance for embedded reinforcement. This product is water based and environmentally friendly.

The recommended film thickness range is 1-2 mils (25-50 microns) dry film thickness. As a soft non-tacky film, MCI CorShield is an excellent choice for long-term indoor protection (up to 5 years\*) and short to medium-term (6-24 months\*) unsheltered outdoor protection. The product cures to a soft non-tacky film and eventually hardens. MCI CorShield has been tested for reinforcing steel bond strength in accordance with ASTM A944-99. The results of this test were exceptionally good confirming that MCI CorShield does not have to be removed prior to embedding in concrete (see Table 2).

\*Depends on conditions

## FEATURES

- Excellent outdoor protection
- Multimetal protection
- Safe and easy to use
- Environmentally friendly
- Does not affect concrete adhesion to rebar

## TYPICAL APPLICATIONS

- Temporary storage of reinforcement and other metal components used in concrete construction
- Processing protection
- Overseas shipping
- Maintenance repairs

## PROPERTIES

Appearance	Light beige to tan liquid
Non-volatile Content	34-45wt%
Dry to Touch Time	30-60 min at 75°F (24°C), 50% R.H.
Viscosity	1000-5000cps (6 rpm/#3)
pH	8.9-9.5 (neat)
Density	8.1-8.5 lb/gal (1.00-1.01 kg/l)
Theoretical Spread Rate (at 1-3 mil)	187-561 sq ft/gal (4.6*14 m <sup>2</sup> /l)
VOC (Regulatory)	1.6-1.7 lbs/gal (191.7-203.7 g/l)
VOC (Actual)	0.7-0.8 lbs/gal (83.9-95.9 g/l)
Dry Film Thickness	1.0-3.0 mils (25-50 microns)
Wet Film Thickness	2.5-4.5 mils (62.5-187.5 microns)

**Table 1**  
Corrosion Protection Properties

Test Method	Thickness of Coating (mils/microns, DFT)	Time of Protection (hours)
Salt Spray (ASTM B-117)	1.0/25	250
	2.0/50	600
Humidity (ASTM D-1748)	1/25	1400
	2/50	1500 +

**Table 2**  
Bond Strength of Steel Reinforcing Bars to Concrete (ASTM A944-99)

Applied Load, in pounds (kg)	Loaded End Elongation, in inches (mm)	
	Control*	MCI CorShield*
2,800 (1,270)	0.053 (1.35)	0.050 (1.27)
7,300 (3,311)	0.090 (2.29)	0.091 (2.31)
10,400 (4,717)	0.220 (5.59)	0.134 (3.40)
15,000 (6,804)	0.293 (7.44)	0.171 (4.34)
20,900 (9,480)	0.319 (8.10)	0.214 (5.44)

\*Mean average of three trials, according to AET test report #05-01412.



## SURFACE PREP

Prepare metal surface to SSPC-SP2 with all contaminants of oil, dirt, rust, and grease removed prior to application.

## APPLICATION

Mix MCI CorShield prior to use. It can be applied by spray, brush, roll, or dip.

### AIRLESS SPRAY EQUIPMENT:

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

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 mm) 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.

BRUSH: Nylon/polyester or nylon

ROLLER: Polyester knitted

### Product Cleanup:

Use water to clean up tools and overspray.

## APPLICATION CONSIDERATIONS

Dew point must be more than 5°F (2°C) less than air temperature during application. The ambient air, coating, and metal substrate temperature should be above 55°F (12.8°C) and below 130°F (55°C) when applied.

MCI CorShield should be completely dry before placing the part into storage.

## PACKAGING AND STORAGE

MCI CorShield is available in 5 gallon (19 liter) pails, 55 gallon (208 liter) metal drums, liquid totes, and bulk. Do not allow product to freeze. Shelf life is up to 12 months.

## 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

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