



MIGRATORY CORROSION INHIBITOR (MCI®) PRODUCTS FOR CONCRETE

MCI®-2246 Bonding and Anticorrosion Agent

DESCRIPTION

MCI-2246 is a unique combination of portland cement, microsilica, epoxy, and acrylic resin. Use it for bonding new concrete or mortar to old and for protecting reinforcing steel against rust and corrosion. When used as a bonding agent, it provides up to a 24-hour open time.

MCI-2246 provides an easier way to bond cement-based materials and to protect reinforcing steel against corrosion. Its two components are field batched. Mixed by drill and paddle, its fluid consistency can be sprayed on easily, increasing job-site productivity.

SURFACE PREPARATION

Bonding Agent

Remove loose and deteriorated materials by shot- or sand-blasting, or mechanical means to obtain a fractured aggregate surface. Make sure surfaces are sound, clean, and free of all bond-inhibiting materials including oil, dust, dirt, laitance, and standing water.

Anticorrosion Agent

Remove rust or active corrosion using sandblasting or mechanical wire brushing to produce a white metal finish. Make sure surfaces are clean, dry, and free of all bond-inhibiting materials including oil, dust, and dirt. MCI-2246 must be applied immediately after cleaning of reinforcing steel to avoid new corrosion.

MIXING

Use both components of MCI-2246 at a preconditioned temperature of 70±5° F (21 ± 3° C). Use 1 gallon (3.8 L) jug of part A per 28 lbs (13 kg) bag of Part B.

Mixing must be achieved mechanically using a slow-speed drill and mixing paddle. Shake jug containing Part A. Pour all of liquid Part A into a clean, dry 5 gallon (19 L) mixing bucket. Mix while slowly adding the Part B powder, one third at a time. Continue mixing until all of the powder has been added. Mix thoroughly until Part A and B are evenly blended to a uniform color. Never add water to the mixture. Mix only sufficient material that can be used within its 90 minute pot life.

FEATURES AND BENEFITS

Features	Benefits
24 hour open time	Provides work schedule flexibility; can be used with formed or shotcrete repairs
Epoxy-, acrylic-based	Ensures bond to concrete and steel
Microsilica-enhanced	Increases bond strength; screens out chloride ions, protecting steel against corrosion
Non-vapor barrier	Allows concrete to breathe naturally; can be applied to on-grade concrete
Two components	Simple to use; mixing instructions easily understood
Sprayable	Easy to apply; speeds application time
20 mils as a bonding agent	Increases coverage; saves money
Field batched	No waste; mix only the amount needed
Water clean up	Tools can be reused; no hazardous solvents needed; environmentally friendly
VOC compliant	Use indoors with minimal ventilation
Non-flammable	Safe for workers

APPLICATION

Apply only to sound, clean, dry, properly prepared, and frost-free surfaces.

Bonding Agent

Dampen the area to be repaired so that the pores of the concrete are filled with water. Remove any ponding or glistening water on the surface (saturated surface dry/SSD).

Apply in one 20 mil (0.5 mm) coat with a hopper gun, pattern pistol-type spray equipment, or with a stiff-bristle brush.

Place fresh mortar or concrete while the MCI-2246 is still wet or within 24 hours.

As a bonding agent only, one 20 mil (0.5 mm) coat is required.



MIGRATING CORROSION INHIBITORS
FROM GREY TO GREEN

Anticorrosion Agent

Brush on two 10 mil (0.25 mm) coats allowing 30-45 minutes between coats. Place fresh mortar or concrete after the MCI-2246 has dried to the touch or within 24 hours. The total thickness must be a minimum of 20 mils (0.5 mm).

Curing

Protect from direct sun or wind which may cause unwanted rapid surface drying.

Clean Up

Clean tools and equipment with water immediately after use. Cured material can only be removed mechanically.

APPLICATION CONSIDERATIONS

- Apply only when surface and ambient temperatures are 45°F (7°C) and rising or 85°F (29°C) and falling.
- Mix Part A and Part B only in the specified ratios. Never add water to the mixture.

Note: MCI-2246 dries in approximately 2 hours. Repair mortar/concrete must have sufficient flowability to "wet-out" the substrate in order to assure proper bonding of repair material.

YIELD

2.5 gal per unit (9.5 L)

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

TECHNICAL DATA

Report	Test Method	Criteria	Test Results
Pot Life			90
Open Time (hours)			24
Bond Strength (psi)	ASTM C-882 Plastic to hardened concrete	2 hrs. open 8 hrs. open 16 hrs. open 24 hrs. open	1,800 2,100 2,100 2,100
Tensile Strength (psi)	ASTM C-190	28 days	800
Flexural Strength (psi)	ASTM C-78	28 days	2,000
Rapid Chloride Permeability (Coulombs)	AASHTO T-277 ASTM C-1202	28 days	< 150

*Typical values for material cured at 73°F (23°C) and 50% R.H.
Note: to convert psi to megapascal (Mpa) multiply by 0.0069

COVERAGE

Bonding Agent

70-80 ft² per gallon, applied at 20 wet mils (6-7 m² per 3.8 L, at 0.5 mm wet)

Anticorrosion Agent

70-80 ft² per gallon, applied at 20 wet mils (6-7 m² per 3.8 L, at 0.5 mm wet)

PACKAGING AND STORAGE

Store in a dry area, between 50°F (10°C) and 85°F (29°C). Protect from direct sunlight and extreme heat. MCI-2246 is available in a 2 part kit including Part A, a 1 gal jug (3.8 L) and Part B, a 28 lbs (13 kg) bag. Shelf life of the product is 12 months in original, properly stored container.

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