

# MIGRATORY CORROSION INHIBITOR (MCI®) PRODUCTS FOR CONCRETE



## MCI®-2022 Sealer, Patented MCI®-2022 V/O MCI®-2022 UV



### PRODUCT DESCRIPTION

MCI-2022 is a water-based, water-repelling sealer for concrete, brick, masonry units, etc. It is a ready-to-use product and is made up of a low VOC blend of silane/siloxane emulsions and time-proven Migrating Corrosion Inhibitors (MCI®). MCI-2022 penetrates the concrete, seals its surface and prevents carbonation and intrusion of water and chlorides. Treated concrete surfaces are fully breathable and their natural moisture-vapor transmissions are not affected.

MCI-2022's unique feature is its Migratory Corrosion Inhibitor action that will migrate through even the densest concrete structures. It seeks out the steel reinforcing bars embedded within to form a protective monomolecular, corrosion inhibiting coating. MCI-2022 also protects a multitude of metals including carbon steel, galvanized steel, and aluminum. A high viscosity version of MCI-2022 is available: MCI-2022 V/O, specifically designed for vertical and overhead applications. A UV tracer may be added if desired. Please request product MCI-2022 UV.

### WHERE TO USE

MCI-2022 is recommended for:

- All reinforced, precast, prestressed, post-tensioned, or marine concrete structures
- Steel-reinforced concrete bridges, highways, and streets exposed to corrosive environments
- Parking decks, ramps, and garages
- All reinforced 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-2022 protects against the harmful effects of corrosion by migrating into even the densest concrete
- Migratory inhibitor reduces further corrosion of the most rusted metals
- VOC compliant
- Easily applied by spray, roller, squeegee, or paint brush to any concrete surface reducing the high cost of labor and equipment
- Non-toxic, contains no nitrites, phosphates, or solvents
- Water-based and non-flammable for easy handling
- Penetrates deep into concrete for anode and cathode protection
- Enhances the durability of reinforced concrete and increases surface abrasion resistance
- Blocks carbonation and chloride ion intrusion
- Allows concrete to breathe and vapor to diffuse, is not a vapor barrier
- Helps protect against acid and chemical attack
- No blushing, peeling, or yellowing
- Resistant to alkali attack

### COVERAGE

Application rates will vary, depending upon surface porosity and number of applications. Approximate coverage rate is 125-175 ft<sup>2</sup>/gal (3-4 m<sup>2</sup>/l).

### PHYSICAL PROPERTIES

	MCI®-2022	MCI®-2022 V/O
Appearance	Milky white liquid	Milky white viscous liquid
pH	9.5-10.5 (neat)	9.5-10.5
Density	8.3-8.4 lb/gal (0.99-1.01 kg/l)	8.1-8.3 lb/gal (0.97-0.99kg/l)
Total Alkalinity	100 mg/L	100 mg/L



## SURFACE PREPARATION

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

As a standard procedure, fresh concrete should be allowed to cure for 28 days before application. In addition, any repair work should be performed at least three days before application. Protect all windows, doorways, lights, etc.

## APPLICATION

MCI-2022 should be stirred before application to ensure proper distribution of active ingredients. Do not alter or dilute the material. Do not apply to a wet or damp substrate. Application should be made by flooding, brushing, or spraying until the surface is saturated. On vertical surfaces, apply MCI-2022 in a flooding application, from the bottom up so the material runs down 6-8 inches (15-20 cm) below the spray pattern. On horizontal surfaces, the liquid material should pond on the surface at least 5 seconds before being absorbed.

If a coating will be used over MCI-2022, a 7 day period is recommended before coating. A compatibility test should also be performed.

## LIMITATIONS

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. MCI-2022 will not penetrate film-forming sealers, coatings, paints, membranes, or asphalt.

## TECHNICAL DATA FROM LABORATORY TEST

Testing Method	Properties	Test Results
SS-W-110C	Water absorption Reduction (Absorption vs. Control)	92%
NCHRP 244 Series II	Chloride ion intrusion reduction (Intrusion vs. Control)	90%
EIS (Electrochemical Impedance Spectroscopy)	Corrosion Protection to Rebar	Corrosion rate of embedded rebars is 2-4 times lower than with the same type of conventional sealers

## 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**

## PACKAGING

MCI-2022 is available in 5 gallon (19 liter) pails, 55 gallon (208 liter) drums, liquid totes, and bulk.

Shelf life: 12 months when stored in original, airtight containers and ambient temperature.

## LIMITED WARRANTY

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