

# MIGRATORY CORROSION INHIBITOR (MCI®) PRODUCTS FOR CONCRETE



## MCI®-2022 Sealer Patented



### 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 transmission is 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.

### 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
<b>Appearance</b>	Milky white liquid	Milky white viscous liquid
<b>pH</b>	9.5-10.5 (neat)	9.5-10.5
<b>Density</b>	8.3-8.4 lb/gal (0.99-1.01 kg/l)	8.1-8.3 lb/gal (0.97-0.99 kg/l)
<b>Total Alkalinity</b>	100 mg/L	100 mg/L



## 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, water-blasting or sandblasting.

## APPLICATION

The product 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. Curing requires 7-10 days. 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.

## 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. For new concrete,

apply MCI®-2022 after the concrete has cured to a minimum of 14 days. For optimum results, allow concrete to cure 28 days or longer. Protect all windows, doorways, lights, etc.

## 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

## PACKAGING

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

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

## 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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