

MIGRATORY CORROSION INHIBITOR™ (MCI®) PRODUCTS FOR CONCRETE



MCI®-2020 Powder & MCI®-2020 V/O Powder



PRODUCT DESCRIPTION

MCI®-2020 Powder is a water-soluble migratory corrosion inhibitor for the treatment of existing concrete structures. It is designed to migrate through even the densest of structures and seek out embedded steel reinforcing bars. MCI®-2020 Powder also protects a multitude of other metals including carbon steel, galvanized steel and aluminum. The unique feature of Migrating Corrosion Inhibitors (MCI®) is that even if not in direct contact with metals, the inhibitor will migrate a considerable distance through concrete to provide protection. MCI®-2020 Powder will reduce corrosion of reinforcing metals and extend the service life of the structure. A special version of MCI®-2020 Powder - MCI®-2020 V/O Powder is designed for vertical and overhead applications.

WHERE TO USE

MCI®-2020 Powder is recommended for:

- All reinforced, precast, prestressed, post-tensioned or marine concrete structures
- Steel-reinforced concrete bridges, highways and viaducts exposed to corrosive environments (carbonation, deicing salts and atmospheric attack)

- Parking decks, ramps and garages
- Preventive maintenance of all reinforced commercial and civil engineered concrete structures
- Concrete piers, dams, offshore platforms, piles, pillars, pipes and utility poles
- Restoration and repair of all reinforced concrete commercial and civil engineered structures
- Plant floors subject to chemical and/or acid attack
- Buildings and foundations of all types
- Cooling towers and potable water tanks

ADVANTAGES

- MCI®-2020 Powder offers engineers, owners, contractors, DOTs and government agencies a time proven corrosion inhibiting technology that will extend the life of all reinforced concrete structures
- Protects against the harmful effects of corrosion by migrating into even in the densest concrete
- Migratory inhibitors reduce further corrosion of rusted metals
- Once diluted, easily applied by spray, roller, squeegee or paint brush to any concrete surface, reducing the high cost of labor and equipment
- Does not contain any calcium nitrite
- Water-soluble and non-flammable for easy handling
- Does not require the removal of sound concrete
- Organic, safe and environmentally friendly
- Enhances the durability of reinforced concrete
- Lab and field tested worldwide
- Allows concrete to breathe and vapor to diffuse, is not a vapor barrier
- Protects both anodic and cathodic areas of reinforcing steel (or metal)
- Proven effective in the Strategic Highway Research Program (SHRP) funded by the federal government and state DOTs
- Confirmed effective in international documented field evaluation (ASTM G-109, Industrial Standards (IS) Japan and Korea, etc.)



- Proven to migrate and protect reinforced concrete in adjacent areas
- No cure time is required - traffic may resume minutes after application if necessary
- Non-hazardous, 100% concentrated product, thus economical and convenient for all types of transportation
- UV tracers can be added to confirm application

PACKAGING

MCI®-2020 Powder and MCI®-2020 V/O are available in 100 pound (45 kg) bags. One, 100 lb drum (45 kg) will yield 55 gallons (208 liters) of ready-to-use MCI-2020 liquid.

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.

MIXING

Dissolve MCI®-2020 Powder in fresh tap water. Use 1 part MCI®-2020 P to 4 parts water by weight. MCI®-2020 V/O Powder requires a mixing time of 30-40 minutes to establish the correct viscosity.

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

Apply the solution by spray (conventional airless or hand pressure spray equipment), roller, squeegee or paint brush to any concrete surface at a rate of 150 ft²/gal (3.68 m²/L). Dense substrates may require two coats at the rate of 300 ft²/gal (5.52 m²/L) with a minimum of 8 hours between coats. The surface should be rinsed with water, pressure washed or blast-cleaned to remove any residue prior to applying a sealer, coating, repair mortar or concrete overlay.

LIMITATIONS

Once mixed into solution, MCI®-2020 Powder and MCI®-2020 V/O Powder should be kept above freezing and below 125°F (50°C). Do not apply if the temperature is expected to fall below freezing within 12 hours. MCI® will not penetrate film-forming sealers, coatings, paints, membranes or asphalt. As a dry powder or as a properly diluted liquid solution, MCI®-2020 P and MCI®-2020 V/O P have a shelf life of 2 years in sealed drums.

PHYSICAL PROPERTIES

(for MCI®-2020 Powder & MCI®-2020 V/O Powder with and without UV tracer)

Appearance	White to Off White powder
pH	5.9-7 (1% aqueous)
Storage/Shelf Life	24 months in sealed drums
Alkalinity Test	600 mg/L

MIXED PROPERTIES

MCI®-2020 & MCI®-2020 V/O (with and without UV tracer)

pH	9-9.7
Density	8.6-8.8 lb/g (1.03-1.05 kg/l)
Non-Volatile	20-27%

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