

MCI®-2120 Concentrate

DESCRIPTION

MCI®-2120 is a concentrated product designed to be diluted 1:3 with potable water. Once diluted, MCI®-2120 is designed to be used as a surface applied, migrating corrosion inhibitor that penetrates through cementitious materials including concrete, mortar, and limestone. MCI®-2120 migrates in both liquid and vapor (gas) phases through the pore structure, forming a protective, molecular layer on embedded reinforcement. MCI®-2120 provides corrosion protection against carbonation, chlorides, and other contaminants.

PACKAGING & STORAGE

MCI®-2120 Concentrate is available in 5 gallon (19 L) pails, 55 gallon (208 L) drums, and 275 gallon (1040 L) totes.

To ensure best product performance, store in original packaging, indoors, and out of direct sunlight at 40-100 °F (4-38 °C).

Shelf life: 2 years



HOW IT WORKS

MCI®-2120 contains organic corrosion inhibitors, which provide ambiodic (mixed) inhibition to protect both anodic and cathodic areas within a corrosion cell. MCI®-2120 contains a synergistic blend of amine salts and carboxylic acids which form a protective layer on embedded reinforcement delaying the onset of corrosion as well as reducing existing corrosion rates.

WHERE TO USE

MCI®-2120 Concentrate is recommended for:

- Preventative maintenance of existing reinforced, precast, prestressed, post-tensioned, or marine concrete structures
- Bridges, highways and industrial floors exposed to aggressive environments (chemicals, deicing salts, carbonation, and atmospheric attack).
- Parking garages
- Concrete piers, dams, offshore platforms, piles, pillars, pipes, utility poles, and cooling towers
- Concrete potable water structures
- As a component of Cortec's High Performance Repair System® (HPRS®).

ADVANTAGES

MCI®-2120 offers engineers, owners, contractors, DOTs, and other government agencies a time proven, corrosion inhibiting technology that will extend the service life of their reinforced concrete structures.

- Protects against corrosion caused by carbonation, chlorides, and other aggressive contaminants
- Effectively reduces corrosion rates on metals with existing corrosion
- ANSI/NSF Standard 61 Approval for structures containing potable water
- Water based and non-flammable
- Does not etch glass
- Does not contain calcium nitrite
- Does not contain wax
- Does not require removal of sound concrete
- Allows vapor diffusion (not a vapor barrier)
- Easily applied by spray, brush, or roller
- Minimal curing time, traffic may resume minutes after application if necessary

MCI®-2120 Concentrate

- Migrates independently of orientation (horizontal, vertical, overhead)
- Migrates up to 3 inches in 30 days
- Proven performance in both lab and field testing

PHYSICAL PROPERTIES

MCI®-2120

Appearance	Clear, slightly yellow to amber colored liquid
pH	9.5-10.5 (1% aqueous)
Density	8.9-9.2 lb/gal (1.07-1.10 kg/L)

MCI®-2120 (after 1:3 dilution with potable water)

Appearance	Clear, yellow, viscous liquid
pH	9.0-10.0 (1% aqueous)
Density	8.4-8.6 lb/gal (1.01-1.03 kg/L)

COVERAGE

MCI®-2120 is applied in a single coat at 150 ft²/gallon (3.68 m²/L) to horizontal surfaces. It is applied in two coats at 300 ft²/gallon (7.36 m²/L) to vertical and overhead surfaces.

SURFACE PREPARATION

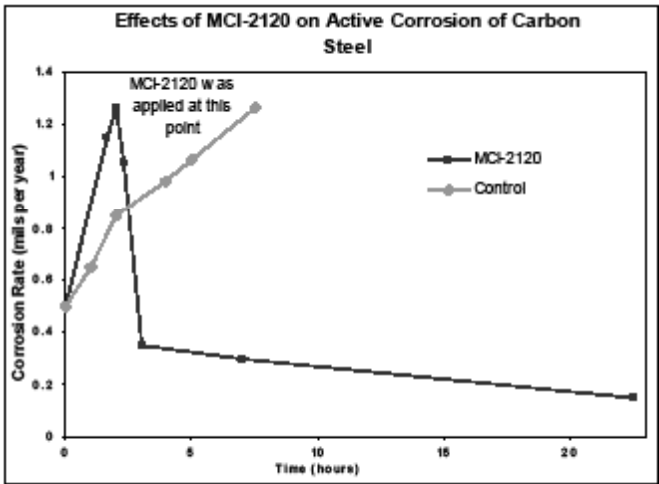
Surfaces should be dry, clean and free of all oil, grease, efflorescence, water repellants, coatings, membranes, and asphalt. Cleaning may be done by steam cleaning, waterblasting, or sandblasting.

APPLICATION

Apply MCI®-2120 by spray (conventional airless or hand pressure spray equipment), brush or roller according to coverage rates listed above. If applying more than one coat, allow the surface to dry enough between applications so that the second coat penetrates into the surface within 15 minutes. When applying a water repellent, coating, repair mortar or overlay over MCI®-2120, the surface should be rinsed with water, pressure washed or blast-cleaned to remove any residue unless prior adhesion testing has been performed. Consult product specifications for more detailed application instructions.

PERFORMANCE DATA

The graph below displays the reduction in corrosion rate after the addition of MCI®-2120 in a 2.0% sodium chloride solution.



CONSIDERATIONS

- Substrate and ambient temperature should be above 35 °F (2 °C) and below 125 °F (50 °C)
- Do not apply if temperature is expected to fall below 32 °F (0 °C) within 12 hours after application
- MCI®-2120 will not penetrate water repellants, coatings, paints, membranes, or asphalt
- If structure will be submerged after application of MCI®-2120, it is recommended to use a waterproofing coating over MCI®-2120 prior to submersion
- Maximum chloride content at the depth of reinforcement in structures being treated with MCI®-2120 is 6 lb/yd³ (3.5kg/m³). For higher levels, consult Cortec® technical service

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