



MCI[®]-2039

High Performance Repair Mortar System



PRODUCT DESCRIPTION

MCI-2039 is a single-component, fiber-reinforced repair mortar containing Migratory Corrosion Inhibitors (MCI[®]), fibers, and polymers. After mixing, the mortar can be applied by trowel and normal rendering tools.

Once applied and hardened, MCI-2039 provides a high level of adhesion, durability, and impermeability to water and carbonation attack. Part of Cortec's HPRS[®] (High Performance Repair System), MCI-2039 also has a low modulus of elasticity. It offers excellent corrosion protection to reinforcing metals in the patch area as well as in the surrounding area. This increases the quality and extends the life of the repair and surrounding structure.

TYPICAL USES

MCI-2039 is recommended for:

- All reinforced, precast, prestressed, post-tensioned, or marine concrete structures
- Steel-reinforced concrete bridges, highways, and streets exposed to corrosive environments (carbonation, deicing salts, and atmospheric attack)
- Parking decks, ramps and garages
- Concrete piers, piles, pillars, pipes, and utility poles
- Restoration and repair of all reinforced concrete commercial and civil engineered structures

FEATURES

- Offers engineers, owners, contractors, DOTs, and government agencies a time-proven corrosion inhibiting technology that will extend the life of all reinforced concrete structures
- Provides the answer to difficult repairs or restorations on smooth substrates where good adhesion is difficult to achieve or where high buildup is required
- Thixotropic qualities and accelerated thickening capabilities ensure quick application of multiple coats and reduction of labor costs
- High durability against carbonation, chlorides, and acid rain
- Migratory Corrosion Inhibitors form a protective layer on metals and migrate to adjacent areas to protect surrounding metals
- Reduces the halo or ring effect around the repair
- High degree of impermeability, while maintaining good vapor transmission properties

PACKAGING

MCI-2039 is packaged in a 55 lb (25 kg) bag.

One bag of powder yields approximately 3.5 gallons (13.4 liters).

COVERAGE

A 55 lb (25 kg) bag of powder can cover a 12 ft² (1.12 m²) surface at a thickness of 1/2 inch (12.7 mm).
Volume = 0.5 ft³ (0.014 m³)



SURFACE PREPARATION

Remove all loose deteriorated concrete, including all dirt, oil, greases, and bond-inhibiting materials from surface. Cortec® MCI-2060 is recommended for cleaning. If the steel or metal members are exposed and rusted, remove loose rust by sandblasting, water blasting, + or wire brush and apply MCI-2023 Passivating Grout. Alternatively, CorrVerter VpCI could be used on rusted rebars before applying MCI-2039.

MIXING

Add MCI-2039 powder to 0.8-0.9 gallons fresh water, stirring at 400-600 rpm with a mixer for 3-5 minutes. Should the mixture need to be particularly thick and cohesive, slightly reduce the quantity of water. If the mortar needs to be more fluid, water may be slightly increased. Prepare only the amount of mixture that can be used within 30 minutes. Do not reuse the product or thin with further liquid after the mortar has thickened.

APPLICATION

Apply MCI-2039 directly to the area requiring repair by trowel and normal rendering tools. To improve adhesion on surfaces that normally provide poor surface bonding, brush the surface with a fluid version of the mortar using a stiff bristled brush. If the repair area requires greater than $\frac{3}{8}$ -2½ inches (10-64 mm), mortar should be installed in several layered applications up to a maximum thickness of 8-12 inches (203-305 mm). In case of thick applications on large surfaces, use wire mesh or netting properly anchored to the structure for additional support. Once applied, MCI-2039 thickens quickly. Finishing the surface in a short time is important.

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 CONSIDERATIONS

- Keep powder in its original wrapping and ensure that it is always well sealed
- Do not use opened bags of powder that are caking or have lumps present
- Do not apply when surface or ambient temperature is expected to be below freezing or over 125°F (50°C) within 12 hours

TYPICAL PROPERTIES

Appearance	Concrete gray when mixed
Shelf Life	1 year in sealed package
Mixing Ratio	0.8-0.9 gal of fresh water per bag
Storage	Keep from freezing
Application time	30-45 minutes after addition of water @ 65-75°F (17-23°C)

LIMITED WARRANTY

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