

MEGA-MORTAR-IC

Fiber Reinforced Structural Patching Mortar

CSI Div. 07

07 16 0 Cementitious Patching Mortar & Water Plug

LEED Points

MR Credit 5.1, Regional Materials:.....Up to 2 Points
 IEQ Credit 4.2, Low-Emitting Materials, Paints and Coatings:.....1 Point.
 Using this AQUAFIN product can help contribute to LEED certification of projects in the categories shown above.

Product Description:

AQUAFIN's MEGA-MORTAR-IC is a fiber reinforced, 1-component, ready mixed cementitious, high strength, structural patching mortar, enhanced with Aquafin's state-of-the art crystalline waterproofing technology. It can be troweled or sprayed and is shrinkage compensated.

Typical Applications:

Concrete and masonry that require patching or resurfacing in. Particularly suited for storm water and sewer manholes, waste water treatment plants, tunnels and parking garages.

Advantages:

- Easy-to-use; just add water, non flammable, non-toxic
- Not a vapor barrier
- Low shrinkage, fiber reinforced
- Trowel or spray apply

Substrate Preparation:

- Substrates must be dry, of load bearing capacity, hardened and be free from potential bond breakers such as dirt, dust, grease, oil, sealers, curing compounds, form release agents, laitance, loose toppings, foreign substances and adhesive residue, etc.
- Only proceed with application when the temperatures remain between 40°F and 90°F (4°C and 32°C) and protect from freezing for 24 hours after application. For temperatures above 85°F (29°C), follow ACI hot-weather application guidelines to ensure a successful installation.
- All surfaces to be repaired should be damp (SSD (saturated surface dry)) but have no standing water. Hot surfaces should be cooled and shaded while cold surfaces should be heated and sheltered. Mechanically remove all loose materials by suitable means such as chipping hammer, chisel, sandblast, waterblast, or similar methods.
- For proper adhesion, the concrete substrate must have a fractured aggregate profile.
- All exposed steel reinforcement must be cleaned to a white metal finish and primed with an anti-corrosion coating.
- Repair areas should have saw-cut straight edges with a minimum of 1/4" (6 mm) depth (avoid featheredging).

Mixing:

Measure: 0.9 - 1.2 gal water per 50 lb bag powder (3.4 - 4.5 L per 22.7 kg) depending on type of application.

Physical and Technical Data	
Aggregate State:	Powder
Color:	Gray
Bulk Density:	~100 lb/ft ³ (~1.6 kg/m ³)
Set Times:	~1 hr / ~3 hr final
Pot Life:	~30 minutes
VOC Content:	0 g/L
Compressive Strength: ASTM C-109	1700 psi (11.7 MPa) @ 1d 3700 psi (25.5 MPa) @ 7d 5400 psi (37.2 MPa) @ 28d
Flexural Strength: ASTM C-348	1000 psi (6.9 MPa) @ 28d
Bond/Adhesion: (ASTM C-321)	> 220 psi (> 1.5 MPa)
pH:	10 - 13
All data are averages of several tests under laboratory conditions. In practice, climatic variations such as temperature and humidity may affect these values.	
Packaging & Approx. Yield: 50 lb (22.7 kg) bags. • 0.42 ft ³ (0.012 m ³) or • 10 ft ² (0.9 m ²) at 1/2" (12.7 mm) thickness..	
Storage and Shelf Life: 12 months when stored dry in the original, unopened packaging.	

- Add MEGA-MORTAR-IC powder to water and mix thoroughly for at least 3 minutes with a mechanical mixer to a stiff mortar consistency for repairs, and a pumpable consistency for spray (gunite) applications. Adjust water using small quantities until proper consistency is obtained.

Installation:

1. Apply a small amount of mixed MEGAMORTAR-IC to the SSD substrate. Work material into the entire substrate and cavity to promote proper bonding.
2. Trowel or spray apply MEGA-MORTAR-IC in lifts of 1/4" to 2" (6 - 50 mm) into the wet scrub coat before it dries, keying in and compact thoroughly. Note: Use air-pneumatic, low pressure spray equipment with 8-air jet gun and 3/8" to 1/2" (10 - 12 mm) orifice for optimum output. Spray material in circular motion at right angle to the substrate, keeping a distance of 1 to 2 ft (300 - 600 mm) to avoid excessive re-bounce and material loss.
3. A 2nd layer may be applied as soon as the 1st layer has sufficiently hardened. Leave surface of 1st layer rough, to provide good mechanical bond for 2nd layer.
4. Finish final layer with steel trowel or sponge float. MEGA-MORTAR-IC can be screeded or shaped to a reasonably smooth finish. Use AQUAFIN-1K as a final coat if a smoother finish is required.

Note:

- MEGA-MORTAR-IC may be used in connection with a bonding agent (acrylic or epoxy).

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- MEGA-MORTAR-IC can be top coated with AQUAFIN-IC cementitious crystalline waterproofing where enhanced waterproofing or chemical resistance is desired. Apply AQUAFIN-IC while MEGA-MORTAR-IC surface is still fresh to assure seamless, tight bond.

Curing

Damp cure for 3 days. Begin curing as soon as the patch has set by keeping surface moist as per ACI recommendations for Portland cement concrete, using burlap, polyethylene or a fine mist of water. If this is not practicable, coat with an approved water based curing compound, (contact Aquafin Technical Department for approved products). However, curing compound may adversely affect following lifts of mortar, leveling mortar or protective coatings.

Clean up:

Before material hardens, thoroughly clean tools with water after use.

Note:

Installer is responsible for proper product application. Site visits by Aquafin personnel or representatives are solely for the purpose of making technical recommendations, not for providing supervision or quality control.

Safety:

Refer to SDS. This product contains portland cement and sand (crystalline silica) and is highly alkaline (irritant) in contact with water. Avoid breathing dust. May cause delayed lung injury (silicosis). Use rubber gloves and goggles during mixing and application. Protect skin and eyes. After contact with skin, wash with plenty of water. In case of eye contact, rinse immediately with plenty of cool water and seek medical advice.

KEEP OUT OF REACH OF CHILDREN.

LIMITED WARRANTY: AQUAFIN, INC. warrants this product for a period of one year from the date of installation to be manufactured free of defects and to be consistent with its technical properties as stated in our current Technical Data Sheet. This product must be used as directed and within its stated shelf life. AQUAFIN INC. will replace or at our discretion refund the purchase price of any product, excluding cost of labor, which is proven to be defective. Our product recommendations are based on industry standards and testing procedures. It is the buyer's obligation to test the suitability of the product for an intended use prior to using it. We assume no warranties written, expressed or implied as to any specific methods of application or use of the product. AQUAFIN INC. MAKES NO WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. AQUAFIN, INC. shall not be liable for damages of any sort including remote or consequential damages, down time, or delay. Any claim for a defective product must be filed within 30 days of discovery of a problem, and must be submitted with written proof of purchase. **For Professional Use Only.**