



## Fiber Reinforced Structural Patching Mortar

- ☑ **Crystalline waterproofing & protection technology enhanced**
- ☑ **Trowelable & Sprayable**
- ☑ **Up to 2" Vertical application**

### Product Description

AQUAFIN 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.

#### Areas of application:

- Storm water and sewer manholes
- Waste water treatment plants
- Tunnels
- Parking garages.

### Advantages

- Quality controlled blending for uniform results
- Easy-to-use; just add water
- Not a vapor barrier
- Low shrinkage, fiber reinforced
- Non flammable, non-toxic
- Sprayable.

### Substrate Preparation

The substrate has to be firm, free from voids and larger cracks, and its surface open-pored to provide mechanical bond. Bitumen, oil, grease, dirt, cement laitance, loose particles, remains of paint or coatings, etc. must be removed by means of high pressure water blasting, wet or dry sandblasting, scarifying or other suitable mechanical means. Substrates should be well pre-watered and slightly damp at the time of application (SSD = saturated surface dry). Clean or replace exposed rebars or mesh as directed by the engineer. Active water leakages must be stopped with AQUAFIN PLUG-IC. Chemical grout may be required where severe water infiltration exists.

### 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.

- 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.

### Application

- Do not apply at temperatures below 40° F (5° C) or to a frozen substrate.

1. Apply a slurry (prime) coat of MEGA-MORTAR-IC (3 parts water : 1 part powder) to the still damp concrete substrate by "scrubbing" generously into surface using a stiff bristled brush.
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.

**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-bound 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:

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

Begin curing as soon as the treated area 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, damp cure for 6 hours, then coat with an approved water based, ASTM C-309 compliant curing compound. However, curing compound may

### Physical Data

Aggregate State:	Powder
Color:	Gray
Bulk Density:	~100 lb/ft <sup>3</sup> (~1.6 kg/m <sup>3</sup> )
Setting Time:	~1 hr / ~ 3 hr final
Pot Life:	30 minutes
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

adversely affect following lifts of mortar, leveling mortar or protective coatings.

Prevent surface shrinkage cracks due to rapid evaporation when windy conditions exist by using one of the above described methods.

### Packaging & Shelf Life:

50 lb. (22.7 kg) multi-wall, plastic lined bag. Shelf life is 12 months in unopened bags.

### Yield:

A 50 lb (22.7 kg) bag yields approximately:

- ◆ 0.42 ft<sup>3</sup> (0.012 m<sup>3</sup>) or
- ◆ 10 ft<sup>2</sup> (0.9 m<sup>2</sup>) at 1/2" (12.7 mm) thickness.

### Safety

**Refer to MSDS.** This product contains Portland cement and sand (crystalline silica) and is highly alkaline. Dust may cause respiratory tract irritation. Avoid breathing dust. Avoid contact with skin and eyes. Wear rubber gloves and safety goggles during mixing and application. After contact with skin, wash with plenty of water. In case of eye contact, rinse immediately with plenty of water for 15 minutes and seek medical advice.

**KEEP OUT OF REACH OF CHILDREN.**

LIMITED WARRANTY: AQUAFIN, INC. warrants its products to be manufactured free of defects and to be consistent with its standard high quality. We will replace or, at our election, refund the purchase price of, any product which is proven to be defective, provided that the product was properly applied. Our product recommendations are based on Industry Standards and testing procedures. We assume no warranties either 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.

**AQUAFIN, Inc.**

505 Blue Ball Road, # 160 Elkton, MD 21921  
Phone (410) 392-2300 Fax (410) 392-2324  
TOLL FREE 1 - 866 - AQUAFIN (1-866-278-2346)

**DISTRIBUTED BY:**

**E-mail: info@aquafin.net**

**http://www.aquafin.net**

**CHECK WEBSITE FOR LATEST UP\_DATES**