

MORTAR-PLUG

Fast-setting Cementitious Water Stop Repair Mortar

CSI Div. 03

03 01 30.71 Rehabilitation of Cast-in-Place Concrete

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:

MORTAR-PLUG is a one-component, fast-setting, portland cement based, water-stop designed to instantly stop active water leaks through holes and cracks in concrete or masonry.

Typical Applications:

When mixed with water, MORTAR-PLUG can be used to stop leaking water in:

- Water/waste-water treatment tanks
- Non-moving (static) cracks and holes with running water
- Non-moving joints, or form-tie holes
- Basements
- Sumps
- Tunnels

Advantages:

- Stops water leaks in two to four minutes at 68°F (20°C)
- Fast return to service
- Ready to apply cementitious coating in 15 minutes
- Excellent bond to concrete and masonry
- Easy application - no odor - no fumes

Substrate Preparation:

The substrate must be sound, clean, and free from any surface contamination. Remove any soft, deteriorated, unsound substrate, leaving an appropriate opening for the MORTAR-PLUG. Rout out cracks to a U-shaped profile.

Mixing:

Add just enough water to mix rapidly by hand to a stiff putty consistency. Mixing time is about 30 - 60 seconds. Approximate mixing ratio by volume is: Add 1 part water to 4 parts powder (1:4)

- Do not mix more than can be placed in 2 minutes.
- Setting time is dependent mainly on the amount of mixing water used and temperature of water.
- In cold weather, use lukewarm or heated water. In higher temperatures, use cold water.
- To avoid wastage, only small quantities of MORTAR-PLUG should be mixed.
- Do not retemper material after initial mixing.

Technical Properties:	
Physical state	Powder
Color	Gray
Bulk density	~75 lbs/ft ³ Bulk (1.22 kg/L)
pH - Value	11 - 13.5
ASTM C-109 Compressive Strength	1 Hour 2500 psi 1 Day 3900 psi
Initial Set: Approx. 2 minutes	7 Day 5200 psi
Final Set: Approx. 4 minutes at 68°F (20°C)	28 Day 6500 psi
Physical Properties: The values stated are applicable with ambient temperatures of 73°F (23°C) and 50% relative air humidity. Higher temperatures shorten the processing time, lower temperatures extend processing times.	
Storage/Shelf Life/Packaging	
Cool and dry, 12 months in original sealed packaging	20 lb and 50 lb (9.0 and 22.7 kg) plastic pails
Yield: approx. 0.5 ft ³ (0.017 m ³) per 50 lbs (22.7 kg). 1 lb (0.45 kg) fills a cavity of approx. 1" x 1" x 24" (25 x 25 x 600 mm).	

Application:

Read all instructions thoroughly prior to installation.
 Do not apply to substrates below 40°F (5°C) or to a frozen substrate.
 At high temperatures (i.e. >90°F (>32°C)) cool mixing water with ice.

Leaking Construction Joints & Cracks:

1. Locate leakage in the concrete.
2. Start at the highest point and work down.
3. Cut/rout out the active leak to sound substrate or 1" (25 mm) depth and 1" (25 mm) width in a U-shaped configuration.
4. Mix MORTAR-PLUG as per mixing instructions.
5. Wait until the MORTAR-PLUG begins to stiffen and becomes warm (~1 minute).
6. Place MORTAR-PLUG into the cavity using gloved hands or a brick jointer and hold firmly in place until it has set (hard).
7. Prior to final set, shave material with a trowel to make flush with surrounding concrete.
8. When MORTAR-PLUG has set, apply Aquafin waterproofing (i.e. AQUAFIN-IC, AQUAFIN-1K, MORTAR-LN, etc.) over concrete, CMU or brick surface.

Plugging with a Drain:

1. Follow steps 1. to 3. above.
2. Insert a pressure relieving drain (i.e. 3/8" - 1/2" (10 - 12 mm) clear plastic pipe) into the cavity at the lowest point to force water through it.

MORTAR-PLUG

- Mix MORTAR-PLUG as per mixing instructions.
- Wait until the MORTAR-PLUG begins to stiffen and becomes warm (~ 1 minute.).
- Immediately mold MORTAR-PLUG into the cavity around the drain, and maintain pressure on MORTAR-PLUG for at least 1 minute.
- Allow minimum 24 hrs for hardening.
- Carefully remove the drain pipe and plug the remaining hole as described above. If necessary, insert steel wool or wooden plug to reduce water flow.
- In extreme cases it may be necessary to use more than one plug or drain pipe. When the MORTAR-PLUG has set apply surface waterproofing as described above.

LIMITATIONS:

- Do not apply to frozen or frost-covered surfaces.
- Do not apply to dynamic (moving) cracks.
- Do not use to fill expansion joints or control joints.
- Do not retemper hardened material.
- Do not use as a surface-applied coating or as a parging material.

Clean-up:

Promptly wash hands and tools with water before material hardens. Cured material must be removed mechanically.

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:

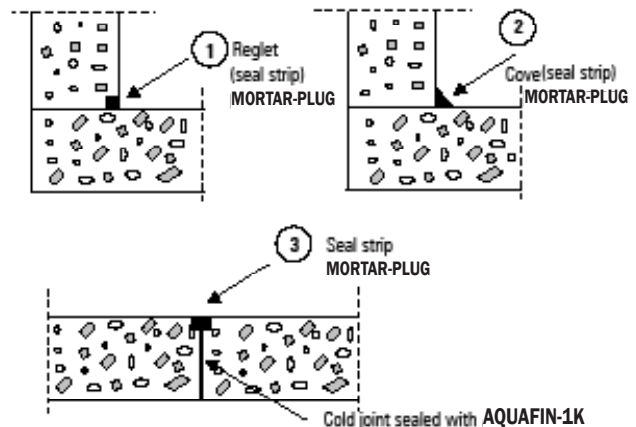
Refer to SDS. This product contains portland cement and sand (crystalline silica) and is highly alkaline (irritant) in contact with water. Avoid breathing dust. May cause delayed lung injury (silicosis). Use rubber gloves and goggles during mixing and application. Protect skin and eyes. After contact 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.

Typical detail sealing of construction joints



Typical detail crack repair

