

AQUAPLUG

NON-SHRINK FAST SETTING HYDRAULIC CEMENTITIOUS PRODUCT

AQUAPLUG is a fast setting, hydraulic cement product formulated to stop leaks in concrete and masonry surfaces. It is particularly effective for stopping the flow of running water. **AQUAPLUG** is ready to use and requires only the addition of water before plugging and sealing leaks.

PRIMARY APPLICATIONS

- Basement repairs
- Manhole repairs
- Concrete pipe repairs

FEATURES / BENEFITS

- Plugs wet cracks in concrete and masonry surfaces to seal out water
- Stops running water, reducing damage
- Stops water seepage at floor and wall junctions
- Expands as it sets for water tight repair
- Will set under water

PACKAGING

AQUAPLUG is packaged in 10 kg bags. Mix approximately 1.75 liter of water for each 10 kg bags.

TECHNICAL INFORMATION

Typical Engineering Data

The following results were developed under laboratory conditions.

Compressive Strength

ASTM C-109 50 mm Cubes

Age	Strength
1 Hour	1,100 psi (8 MPa)
1 day	2,400 psi (17 MPa)
7 days	4,000 psi (28 MPa)
28 days	4,700 psi (32 MPa)

The standard formula **AQUAPLUG** typically has a reaction time of 3 to 5 minutes. A slower setting formula (12-15 minutes) and a faster setting formula (30 seconds to 90 seconds) is also available upon request.

DIRECTIONS FOR USE

Surface Preparation - Concrete must be clean and rough. All oil, dirt, debris, paint and unsound concrete must be removed. The surface must be prepared mechanically using a scabber, Bushhammer, shotblast or scarifier which will give a surface profile of a minimum 3.2 mm and expose the large aggregate of the

concrete. The final step in cleaning should be the complete removal of all residue with a vacuum cleaner or pressure washing.

Bonding - **AQUAPLUG** requires no special bonding procedures, just a clean sound surface.

Mixing - The material should be mixed by hand or with a drill and "jiffy" mixer. All materials should be in the proper temperature range 16°C-32°C. Add the appropriate amount of water for the batch size and then add the dry product. Mix for about one minute. The mixed product should be placed immediately.

Placement - Widen out and clean cracks to at least 10 mm in width and depth. Force the **AQUAPLUG** plug into the prepared crack with a pointing trowel and slick off the surface. If more time is desired for application, mix the **AQUAPLUG** with ice water.

Running Water - Prepare all cracks properly and, if possible, relieve excess hydrostatic pressure by drilling a relief hole or by chiseling out the crack at its very lowest point. Mix an adequate quantity of **AQUAPLUG**. After mixing, immediately place the plug of **AQUAPLUG** in your hand and hold it until it suddenly begins to get warm. This will take 2-4 minutes from the start of mixing. At this point, speed in working is essential. Force the **AQUAPLUG** plug into the hole or crack which is to be sealed off. Start filling cracks or holes at the top. To close the final opening and seal off a stream of water, make sure the **AQUAPLUG** plug is starting to warm up. At that moment force into the hole and exert pressure either with your hand or trowel for a full 5 minutes or longer to assure setting of the plug. In some cases where the water is extremely cool, it may be necessary to hold the plug in place for a little longer.

Cement Plaster - When treating seeping walls, remove all foreign materials such as white wash, loose particles of concrete or block, oils or paint. Add an equal quantity of standard portland cement and fine masonry sand to **AQUAPLUG**. Use cool mixing water to make a slurry of the cement, sand and **AQUAPLUG**.

"High Quality Construction Chemicals"

Apply the heavy slurry to the seeping wall where it will set up and stop water seepage in 10 minutes time.

Bolt and Hand Rail Anchoring - Use a star drill to make a hole approximately 38 mm larger than the anchor. Mix enough **AQUA-PLUG** to fill the area and pour the tamp it into place around the anchor.

Finishing - Finish **AQUAPLUG** to the desired texture to match the surrounding concrete. Do not add additional water to the surface during the finishing operation. Use **CEMTEC WALL SEAL** as a final waterproofing coating for additional protection against water seepage and to improve the appearance and uniformity of the repair area.

Curing & Sealing - **AQUAPLUG** requires no special curing procedures.

CLEAN-UP

Clean tools and equipment with water before the material hardens.

PRECAUTIONS / LIMITATIONS

- Large area placements over 75 mm in depth should be avoided. Consult CMCI Technical Dept. for large area placement.
- The temperature of the patch should not be allowed to increase over 52°C.
- Use of cold mixing water or application of cold water to the repair surface is advised if large placements are expected.

QUALITY STATEMENT

CMCI manufacture its products at their manufacturing facility in Saudi Arabia as per the Quality Procedures certified to conform with Quality Management System described in ISO 9000 series

CMCI provides a comprehensive technical support system for its full range of high performance construction products. CMCI also offers full technical field support to consultants, Architects, Contractors, applicators and End Users

The Technical Specification information and recommendation given are based on the current technical knowledge and the user or his representative is recommended to check the suitability of the product. CMCI reserves the right to amend the technical characteristic of the product as part of ongoing research and development. As the work execution is beyond the direct and continuous control of CMCI no guaranty and or responsibility is assumed on the performance of work completion executed with use of our products.