

# CHEM PLUG



## NON-SHRINK FAST SETTING HYDRAULIC CEMENTITIOUS PRODUCT

Chem Plug 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. Chem Plug 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:

- 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:

Chem Plug is packaged in 5 kg & 20 Kg Pack. 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 3,500 psi (28 MPa)

28 days 4,700 psi (32 MPa)

The standard formula typically has a reaction time of 3 to 5 minutes.

### 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 to 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** – Chem Plug 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 Chem Plug Plug into the prepared crack/ gap with a pointing trowel and slick off the surface. If more time is desired for application, mix the Chem Plug with cold 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 Chem Plug. After mixing, immediately place the Chem Plug 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 Chem 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 Chem 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 Chem Plug. Use cool mixing water to make a slurry of the cement, sand and Chem Plug. Apply the heavy slurry to the seeping wall where it will set up and stop water seepage in 10 minutes time.

### 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 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.