



# CEM290-H

## Hot Set Hydraulic Cement (45 econds)

### PRODUCT DESCRIPTION

CEM290-H is a quick setting, one component hydraulic cement compound, used to instantly stop running water or seepage leaks in masonry or concrete. CEM290-H is non-shrinking, non-metallic and non-corrosive which requires only potable water for mixing and achieves initial set in 45 seconds, even when applied under water.

### FIELDS OF APPLICATION

CEM290-H is used above or below grade, interior or exterior, to stop seepage and flowing water leaks in most concrete and masonry walls and floors. The initial fast set, high strength and controlled expansion make CEM290-H the ideal packing material for use in:

- Dams and Reservoirs
- Tunnels and Sewers
- Bridges and Cisterns
- Swimming Pools, Elevator Shafts and Fountains
- Foundations etc.

### PRODUCT FEATURES

- Rapid initial setting in 45 seconds
- Non-shrinking
- Non-corrosive
- Suitable for use in potable water tanks
- Non-metallic
- High strength with controlled expansion

### PACKAGING

Product	Packaging
CEM290-H	20 Lb (9.07 Kg) Pail
	50 Lb (22.68 Kg) Pail

### TECHNICAL DATA

#### Compressive Strength, ASTM C-109

Time	Psi	MPa
1 hours	1102	7.6
7 days	2553	17.6
28 days	3379	23.3
28 days	3727	25.7

#### Flexural Strength, ASTM C-348

Time	Psi	MPa
24 hours	435	3.0
7 days	544	3.75
28 days	598	4.12

**Pull Out Strength, ASTM C-234:** 15446 psi (106.5MPa)

**Freeze/Thaw, ASTM C666 "Method A":** 100 cycles

**Sulfate Resistant, ASTM C267:** No weight loss after 15 cycles

@2000 ppm

**Set Time:** 45 seconds

**Mixed Density:** 17.4 Lb/Gal (2.09 Kg/L)

**Mixing Ratio:** 1 Potable Water to 3.5 CEM290-H by volume

### APPLICATION DATA

**Surface Preparation:** Cut or chisel out the concrete or masonry surrounding the hole or crack, to a minimum depth and width of 5/8 to 6/8 inches (18-20 mm). Under cut the crack or hole into a 'V' shaped cut to provide mechanical bond during initial set and final cure. Flush, blow or vacuum loose particles, dust or other foreign materials from the prepared areas. When the relief point for water leak is ready, treat the surround by simply rubbing the dry powder of CEM290-H into the wet surface.

**Mixing:** Pour potable water into a clean mixing container and add CEM290-H. Use approximately 1-part water to 3.5-parts CEM290-H by volume. Mix rapidly with a trowel to the consistency of stiff putty with no slump. Mix no more than 30 seconds. CEM290-H will flash set in 45 seconds. Properly mixed CEM290-H can be hand-formed into a ball.

Mixing should always be done carefully using Rubber Gloves.

#### Application:

**General Patching:** Force CEM290-H into the crack or hole even with surface.

**Patching Active Leaks:** Hold mixed CEM290-H in hand until warm. Start at top opening, firmly forcing CEM290-H into small section of the crack. Hold until set. Continue working down until crack is completely filled and water stops running.

**Floor-wall Patching:** Follow the above method for similar conditions.

**Expansion/Contraction Cracks:** Use CEM290-H to stop running water leaks. Do not fill crack completely to surface. Allow approximately 1/2 inch (13 mm) depth and fill with a flexible joint sealer.

**Note:** In all above methods, use safety rubber gloves for hand protection.

**Curing:** Standard concrete curing procedures should be followed to prevent rapid water loss and consequent loss of strength.

#### Coverage:

2.2 Lb (1 Kg)	0.6 Liters
20 Lb (9.07 kg)	0.19 ft <sup>3</sup> (5.44 Liters)
50 Lb (22.68 kg)	0.48 ft <sup>3</sup> (13.61 Liters)

2.2 Lbs (1 kg) of CEM290-H will repair approximately 26 inches (65 cm) long crack/cut of 20 x 20 cm.

**Cautions:**

- Do not re-temper CEM290-H.
- Do not apply CEM290-H to frozen surfaces.
- In hotter climates, mix CEM290-H with cold water.
- In cold weather, mix CEM290-H with warm water.
- Use CEM230 for large patches and for under water patching.

**CLEANING**

Clean tools and mixing equipment with water immediately after use.

**STORAGE**

Indefinite shelf life when stored in cool, dry place in unopened drums.

**SAFETY PRECAUTIONS**

CEM290-H is a non-flammable and non-toxic in nature. Avoid contact with eyes and skin as it may cause irritation due to its alkaline nature. Splashes of CEM290-H should be washed off immediately with clean water. Wear necessary gloves and dust mask.

**TECHNICAL ASSISTANCE**

Please contact International Chem-Crete Corporation for Technical Personnel.

**WARRANTY**

**LIMITED WARRANTY:** International Chem-Crete Inc. warrants that, at the time and place we make shipment, our materials will be of good quality and will conform to our published specifications in force on the date of acceptance of the order.

**DISCLAIMER:** The information contained herein is included for illustrative purposes only and, to the best of our knowledge, is accurate and reliable. International chem-crete Inc. is not under any circumstances liable to connection with the use of information. As International Chem-Crete Inc. has no control over the use to which others may put its products, it is recommended that the products be tested to determine the suitability for specific applications and/or our information is valid in particular circumstances. Responsibility remains with the architect or engineer, contractor and owner of the design, application and proper installation of each product. Specifier and user shall determine the suitability of the product for specific application and assume all responsibility in connection therewith. AM22319.

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