



# CEM120H

## Fast Patch Cementitious Mortar for Full-depth Concrete Repair

### PRODUCT DESCRIPTION

CEM120H is a one-component rapid hardening Portland cement concrete containing coarse aggregate, microsilica, polymers and reinforcing fibers for making full-depth repairs of all types of concrete structures.

### FIELDS OF APPLICATION

CEM120H Full-depth repairs on grade and below-grade concrete. Minimum thickness of 1 inch to a maximum thickness of 8 inches (thicker applications can be achieved through applying in lifts) structural repairs for horizontal and form and pour repairs. Excellent for balcony, parking lot, parking deck, pedestals, curbs, equipment bases, re-sloping floors and industrial plant repairs. CEM20H can be used in

- Airport runways & taxiways
- Hangars Floors
- Loading Bays
- Warehouse Floors
- Highway Repairs
- Factory Floors

### PRODUCT FEATURES

- Pre-packaged to eliminate jobsite mixing
- Contains coarse aggregate, no need to extend in the field
- Contains a corrosion inhibitor
- Contains micro-silica
- Can accept coating in as little as 6 hours
- Very low porosity for better chemical resistance
- Rapid set time typically mixed at 6" slump

### PACKAGING

| Product | Packaging             |
|---------|-----------------------|
| CEM120H | 65 lb. (29.48 Kg) Bag |
|         | 3000 lb. Super Sack   |

### TECHNICAL DATA

| Property                        |           | Value *      | Standard   |
|---------------------------------|-----------|--------------|------------|
| Compressive Strength, psi (MPa) | 3 Hours   | 4330 (29.85) | ASTM C109  |
|                                 | 1 day     | 6190 (42.68) |            |
|                                 | 7 days    | 8770 (60.45) |            |
|                                 | 28 days   | 9560 (65.9)  |            |
| Setting Time**, minute          | Initial   | 30 - 40      | ASTM C-191 |
|                                 | Final     | 40 - 50      |            |
| Bond Strength, psi (MPa)        | 1 day     | 1765 (12.17) | ASTM C-882 |
|                                 | 7 days    | 2425 (16.72) |            |
| Length Change – Air cured       | 28 days   | 0.015        | ASTM C-157 |
| Length Change – Water cured     | 28 days   | 0.0026       |            |
| Resistance to Scaling           | 25 Cycles | 0            | ASTM C-672 |

\* Average

\*\* Test at 75°F (25°C)

### APPLICATION DATA

**Water requirement:** 1 Gallon (3.785 Liters) water is required for the 65 Lb. (29.48 Kg) Bag of CEM120H. Accurate measurement of water is very essential.

**Coverage:** 65 pounds will equal approximately 0.45 cubic feet.

**Surface Preparation:** All surfaces must be clean and free of dirt, dust, paint, sealers, coatings, loose material, adhesives, curing compounds or any material that will inhibit patching material from coming in contact with the concrete pores. Removal of any anti adherents or loose materials must be accomplished mechanically.

**Steel Reinforcement:** Mechanically clean all surfaces to remove rust and corrosion (repair rebar as needed). Ensure enough concrete is removed to produce a 1-inch minimum repair.

**Priming:** In addition to a saturated, surface dry (SSD) substrate, the use of an epoxy or latex primer should be considered.

**Mixing:** Place 1 gallon of water into mixing container, followed by one 65lb. bag of CEM120H. Mechanically mix water and material to uniform consistency. Adjust water as needed up to 1.25Gal. CHEM-CRETE EB550 may be used in lieu of water for a more durable bond. Material may be pumped, poured into forms or used with wet or dry shotcrete method.

**Application:** In cold weather use warm (not hot) water for mixing. Dampen the surface of the work area before applying the new material. For a rough or non-slip surface, use a wooden float or broom. For a smooth finish, use a steel trowel. Avoid over troweling. Hot weather: (above 80 degrees) will cause faster setting; mix with cold water or ice to slow setting time.

**Curing:** For proper curing, keep moist for 3 days with an occasional fine spraying with water or cover with wet burlap or plastic. The use of a curing compound conforming to ASTM C-309 will also work; however curing compounds will need to be mechanically removed prior to coating. (Check with the coating manufacturer)

Cure patch with damp curing, especially in warm weather, in direct sunlight, and on thin sections.

### CLEANING

Clean all mixing and application equipment with water immediately following use. Remove all splatter of spills with water before material sets.

## STORAGE

Store CEM120H in cool dry storage facilities. Do not expose to direct sunlight. The shelf life of CEM120H is minimum 1 year if stored in a cool dry place in its original unopened container.

## SAFETY PRECAUTIONS

CEM120H is a non-flammable and non-toxic in nature. Contains Portland cement; avoid eye contact or prolonged contact with skin. Wash thoroughly after handling. In case of eye contact, flush with plenty of water for at least 15 minutes. Consult a physician immediately. Keep out of reach of children. Contains free silica - DO NOT breathe dust. May cause delayed lung injury. Follow OSHA safety and health standards for crystalline silica (quartz).

## 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. AM130824-2.

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