

# WP MORTAR HP

High-Performance Cementitious Coating for Concrete and Masonry



## PRODUCT DATASHEET

**DESCRIPTION:** Rapid Set® WP MORTAR HP is a high-performance, polymer modified, cement coating. Durable in multiple environments, WP MORTAR HP is a blend of Rapid Set hydraulic cement, high performance additives and quality aggregates. WP MORTAR HP has a working time of 30 minutes, can be exposed to hydrostatic pressure in 3-5 days, and cures to a concrete gray color.

**USES:** Use WP MORTAR HP on interior or exterior concrete and masonry surfaces, both above and below grade. WP MORTAR HP can be used to waterproof basements, foundations, retaining walls, tilt-up concrete, cast-in-place concrete, and precast concrete.

**ENVIRONMENTAL ADVANTAGES:** Use WP MORTAR HP to reduce your carbon footprint and lower your environmental impact. Production of Rapid Set cement emits far less CO<sub>2</sub> than portland cement. Contact your CTS representative for EPD, LEED values and other sustainability information.

**APPLICATION:** Apply WP MORTAR HP in thicknesses from 1/16" to 1/8" (0.16 cm to 0.32 cm).

**SURFACE PREPARATION:** Application surface must be clean, sound and free from any materials that may inhibit bond, such as oil, asphalt, curing compound, acid, dirt and loose debris. Mechanically abrade smooth surfaces such as precast and cast-in-place concrete. Surface must be dampened, but not saturated with water before applying WP MORTAR HP.

**MIXING:** The use of a power-driven mechanical mixer, such as a mortar mixer or a drill-mounted mixer, is recommended. Organize work so that all personnel and equipment are in place before mixing. **Use clean potable water. WP MORTAR HP may be mixed using 5.0 to 7.0 quarts (4.7 to 6.6 L) of water per 50-lb (22.7-kg) bag. Vary water content to achieve desired consistency. Do not exceed 7.0 quarts (6.6 L) of water per bag. Do not add any chemicals or admixtures.** Place the desired quantity of mix water into the mixing container. While the mixer is running, add WP MORTAR HP. Mix thoroughly to achieve a homogeneous, lump-free consistency (usually 1 to 3 minutes). Let WP MORTAR HP rest undisturbed for 2 to 3 minutes, then remix and apply.

**PLACEMENT:** WP MORTAR HP may be applied using a trowel, tampico masonry brush, 3/8" nap roller or similar. It is essential to thoroughly work the first coat into substrate to fill all voids and cracks, then apply with a horizontal stroke to ensure even application. Allow first coat to cure for a minimum of 3 hours, then apply second coat using a vertical stroke to finish the application. To eliminate joint telegraphing and shadowing on block and masonry walls, allow WP MORTAR HP to cure for 2 days before applying second coat. Dampening the substrate is not required prior to the second coat. WP MORTAR HP may be applied in temperatures ranging from 45°F to 90°F (7°C to 32°C). Coatings may be applied to WP Mortar HP after water curing the final coat.

**WATER-BASED COATINGS:** Must be applied within 24 hours.

**CEMENTITIOUS PRODUCTS:** Must be applied within 48 hours.

**SOLVENT-BASED OR IMPERMEABLE COATINGS:** Must be applied after 48 hours.

## OVERVIEW

### Highlights:

Resists water intrusion in positive and negative side applications

Single Component: Just add water

Polymer Modified: Increased adhesion and abrasion resistance

Fast: Return to service in 3-5 days

Vapor Permeable: Allows structure to breathe

Durable: Formulated for long-life in critical applications

### Tested in accordance with:

ASTM: C1583

DIN EN 14891

### MasterFormat® 2016

03 01 00 Maintenance of Concrete

03 01 30 Maintenance of Cast-in-Place Concrete

03 01 40 Maintenance of Precast Concrete

03 01 50 Maintenance of Cast Decks and Underlayment

03 40 00 Cast in Place Concrete

03 40 00 Precast Concrete

03 41 00 Precast Structural Concrete

03 70 00 Mass Concrete

04 01 00 Maintenance of Masonry

07 11 16 Cementitious Damproofing

07 16 00 Cementitious and Reactive Waterproofing

04 20 00 Unit Masonry

### Manufacturer:

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**CURING:** Water cure all WP MORTAR HP installations after 4 hours of placement at normal temperatures at 70°F (21°C) with a light water mist for 1 hour. A curing compound (ASTM C309) may be used as a substitute for water curing after the final coat. For warm and cold weather conditions, refer to instructions, frequently asked questions (FAQs), and technical documents online at CTScement.com.

**COLD WEATHER:** Environmental and material temperatures below 70°F (21°C) may delay setting time and reduce the rate of strength gain. Lower temperatures will have a more pronounced effect. Thinner sections will be more significantly affected. To compensate for cold temperatures, keep material warm, use heated mix water. When experiencing extended setting time due to cold temperature, longer curing times may be required.

**WARM WEATHER:** Environmental and material temperatures above 70°F (21°C) may speed setting time and increase the rate of strength gain. Higher temperatures will have a more pronounced effect. To compensate for warm temperatures, keep material cool, use chilled mix water.

**YIELD & PACKAGING:** WP MORTAR HP is available in 50-lb (22.7-kg) bags. For each coat applied with a trowel or tampico masonry brush, one 50-lb (22.7-kg) bag will cover a 100 ft<sup>2</sup> (9.3 m<sup>2</sup>) at a thickness of 1/16" (0.16 cm). When applied in two coats, one 50-lb (22.7-kg) bag will cover 50 ft<sup>2</sup> (4.6 m<sup>2</sup>).

**SHELF LIFE:** WP MORTAR HP has a shelf life of 12 months when stored properly in a dry location, protected from moisture, out of direct sunlight, and in an undamaged package.

**LIMITATIONS:** WP MORTAR HP is not suitable for use with aquatic life, Exterior Insulation Finish Systems (EIFS), and steam room applications. Not designed to exceed the limits of DIN EN 14891 or for sealing moving cracks.

**USER RESPONSIBILITY:** Before using CTS products, read current technical data sheets, bulletins, product labels and safety data sheets at [www.CTScement.com](http://www.CTScement.com). It is the user's responsibility to review instructions and warnings for any CTS products prior to use.

**WARNING: DO NOT BREATHE DUST. AVOID CONTACT WITH SKIN AND EYES.** Use material in well-ventilated areas only. Exposure to cement dust may irritate eyes, nose, throat, and the upper respiratory system/lungs. Silica exposure by inhalation may result in the development of lung injuries and pulmonary diseases, including silicosis and lung cancer. Seek medical treatment if you experience difficulty breathing while using this product. The use of a NIOSH/MSHA-approved respirator (P-, N- or R-95) is recommended to minimize inhalation of cement dust. Eat and drink only in dust-free areas to avoid ingesting cement dust. Skin contact with dry material or wet mixtures may result in bodily injury ranging from moderate irritation and thickening/cracking of skin to severe skin damage from chemical burns. If irritation or burning occurs, seek medical treatment. Protect eyes with goggles or safety glasses with side shields. Cover skin with protective clothing. Use chemical resistant gloves and waterproof boots. In case of skin contact with cement dust, immediately wash off dust with soap and water to avoid skin damage. In case of skin contact with wet cement, wash exposed skin areas with cold running water as soon as possible. In case of eye contact with cement dust, flush immediately and repeatedly with clean water, and consult a physician. If wet cement splashes into eyes, rinse eyes with clean water for at least 15 minutes and go to the hospital for further treatment.

Please refer to the SDS and [www.CTScement.com](http://www.CTScement.com) for additional safety information regarding this material.

**LIMITED WARRANTY:** CTS CEMENT MANUFACTURING CORP. (CTS) warrants its materials to be of good quality and, at its option, will replace or refund the purchase price of any material proven to be defective within one (1) year from date of purchase. The above remedies shall be the limit of CTS' responsibility. Except for the foregoing, all warranties expressed or implied, including merchantability and fitness for a particular purpose, are excluded. CTS shall not be liable for any consequential, incidental, or special damages arising directly or indirectly from the use of the materials.

## ⚠ WARNING

CANCER and REPRODUCTIVE HARM - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## TYPICAL PHYSICAL DATA

### Hydrostatic Pressure Resistance, DIN EN 14891

Positive pressure 21.7 psi (0.15 MPa)

Negative pressure 7.3 psi (0.05 MPa)

### Set Time, ASTM C191 Mod.

Initial set 2 hours

Final set 3 hours

### Compressive Strength, ASTM C109 Mod.

24 hours 2500 psi (17.2 MPa)

3 days 3000 psi (20.7 MPa)

7 days 3500 psi (24.1 MPa)

28 days 3800 psi (26.2 MPa)

### Tensile Bond Strength, ASTM C1583

3 days 100 psi (0.69 MPa)

28 days 200 psi (1.38 MPa)



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