



Cement

6/30/2018

RAPID HARDENING CEMENT PRODUCTS

PROVEN TECHNOLOGY FOR OVER 25 YEARS

CMAX® Cement is proprietary blend of hydraulic cements with a fibrous crystalline structure. Combine CMAX® Cement with aggregates and water to produce a high performance concrete product that is ideal where rapid strength gain and high durability are desired.

CMAX® Cement, depending on the mix design used, can set in as little as 15 minutes, can achieve structural strength in 1 hour, and compressive strength in excess of 10,000 psi in 28 days.

APPLICATION & INSTRUCTIONS

APPLICATION: Its uses include new concrete projects, formed work, structural projects, flat work, and concrete repairs requiring greater durability, low shrinkage and high strength. Concrete produced with CMAX® Cement have also been used on projects such as highway paving and repair, bridges, and airport runways.

SURFACE PREPARATION: For repairs, the surface shall be clean, sound and free from any materials that may inhibit bond such as oil, asphalt, curing compounds, acids, dirt and loose debris. Roughen surfaces and remove all unsound concrete. Immediately prior to placement the repair surface shall be thoroughly saturated with no standing water.

MIXING: Organize work so that all personnel and equipment are in place before mixing. Using a concrete mixer per ACI specification 304.6R is recommended. CMAX® Cement can be mixed manually or in regular concrete mixers. The typical working time for CMAX® Cement is 20 minutes in normal weather conditions. For optimum performance a trial batch is recommended. Basic mix design for small projects is one-part CMAX Cement to two parts (by weight) of washed concrete or plaster sand and two parts coarse aggregate (ranging from 1/4" to 3/4"), and approximately 4 1/2 gallons of clean water.

Use clean potable water. CMAX® Cement may be mixed using 5 to 8 quarts (4.7 L to 7.5 L) of water per 88-lb (40-kg) bag. Use less water to achieve higher strengths. Do not exceed 8 quarts (7.5 L) of water per bag. Place the desired quantity of mix water into the mixing container. While the mixer is running, add CMAX® Cement. Mix for the minimum amount of time required to achieve a lump-free, uniform consistency (usually 1 to 3 minutes). Do not re-temper. Add water to achieve desired slump for project use. Mix thoroughly.

PLACEMENT: CMAX® Cement may be placed using traditional methods. Organize work so that all personnel and equipment are ready before placement.

Place, consolidate, and screed quickly to allow for maximum finishing time.

Do not wait for bleed water. Apply final finish as soon as possible. CMAX Cement® may be troweled, floated or broom finished. On flat work do not install in layers, install full depth sections and progress horizontally.

Minimum performance requirements

Curing Time	Compressive Strength	
1 hour	3000 psi	(20.1 MPa)
3 hours	4000 psi	(27.6 MPa)
1 day	5500 psi	(37.9 MPa)
7 days	8000 psi	(55.2 MPa)
28 days	10,000 psi	(68.9 MPa)
Set Time	15 to 20 minutes	

CURING:

Water cure all CMAX® Cement installations. Begin curing as soon as the surface has lost its moist sheen. Keep exposed surfaces wet for a minimum of 1 hour. When experiencing extended setting times due to cold temperature, or the use of retarder, longer cure times may be required. The objective of water curing shall be to maintain a continuously wet surface until the product has achieved sufficient strength.

Shelf Life: When stored in a dry location, In an undamaged package CMAX® Cement has a shelf life of approximately 12 months.

Yield: One 88 lb. bag of CMAX Cement and aggregates mix will yield approximately 5.5 cubic feet.

SPILL/HANDLING AND STORAGE: Cured product can only be removed mechanically. In case of spillage, scoop or vacuum into an appropriate container, and dispose of in accordance with current applicable local, state, and federal regulations. Remove any contaminated clothing after use. Keep container tightly closed and in upright position to prevent spillage and leakage.

Chemical Ingredients**Cas No.**

Portland Cement

65997-15-1

Silica, Quartz

14808-60-7

CAUTION:

CMAX® Cement contains cementitious materials and may cause irritation to lungs, eyes and skin. Avoid contact. Use only in adequate ventilation. Do not breath dust. Wet mixture may cause burns. Wear suitable gloves, eye protection and protective clothing. In case of skin contact, wash thoroughly with soap and water. In case of eye contact, flush immediately and repeatedly with large quantities of water and get prompt medical attention. In case of difficulty breathing, remove person to fresh air. If difficulty breathing persists, seek medical attention.

LIMITED WARRANTY: CMAX Cement Manufacturing Corporation warrants its material to conform to CMAX's current published physical properties when applied in accordance with CMAX's directions and tested in accordance with ASTM and CMAX's standards for a period of one-year form date of purchase. All users determine suitability of product for intended use and assumes all risk. Manufacturer's liability for damages shall be limited to the purchase price or replacement of purchase product only. This remedy is the exclusive remedy and excludes labor and cost of labor. Warranty is contingent upon use of product within shelf life. There are no other warranties, express or implied including merchantability and fitness for a purpose are excluded. CMAX shall not be liable for any consequential, incidental, or special damages arising directly or indirectly from the use of the material.

WARNING:

This product contains crystalline silica, a substance known to the State of California to cause cancer. This product also may contain trace amounts of heavy metals known to the State of California to cause cancer, birth defects or other reproductive harm.

