



Rapid Hardening Cement Products (2/9/2018)

CONSTRUCTION GROUT

DESCRIPTION:

CMAX® Construction Grout is a versatile, non-shrink grout that uses our patented cement technology and can be mixed to any consistency from damp pack to fluid. CMAX® Grout is a high-quality blend of portland cement, non-shrink additives, and specialty sand. When mixed with water, CMAX® Grout produces a durable, high strength material that can be used for grouting and general concrete applications on indoor and outdoor projects.

USE:

- Structural and non-structural applications
- Precision grouting
- Base Plates
- Precast Components
- Machinery and equipment bases
- Anchor bolts
- Concrete repair
- Keyway joints
- Load bearing pads
- Non-shrink applications

FEATURES

- Non-shrink: Provides dimensional stability and enhanced durability for precision grouting and concrete application
- Quick-setting: Minimizes downtime and ready for loading in 24 hours
- Multi-purpose: Use for grouting, anchoring and many general concrete applications
- Mix to any consistency: From damp pack to fluid
- High-strength: Achieves 10,000 psi (69MPa) compressive strength in 8 days at flowable consistency
- Easy to Use: Just add water

FORMS:

Construct forms to be watertight and non-absorbent. Joints should be sealed with polyurethane foam, caulk, or putty. Forms to be coated or lined with bond breaker or form release. Provide adequate vent holes to avoid air entrapment. Provide a head placement of 45 degree angle to facilitate placement for grout pour. Build forms 1" higher than bottom of plate and 1" to 3" between side of plate and form.

TECHNICAL DATA:

Meets ASTM C-266 Mod, ASTM C109 Mod, ASTM C1090, ASTM C827

COVERAGE GUIDE:

One 50 lb bag will yield 0.44 cubic feet at a flowable grout consistency. Coverage may vary due to worksite conditions

PREPARATION:

Concrete surfaces must be clean, sound, and free from any materials that may inhibit bond such as oil, dirt, asphalt, sealing compounds, acids, wax, and loose debris. When bonding is important, all surfaces should be mechanically abraded by scarifying, grinding, shot blasting or other approved methods. Placement area must be between 45°F to 90°F (7°C to 32°C). Saturate the substrate with clean water for a minimum of 4 hours and preferably 24 hours before grout placement. Remove any standing water or puddles before placement of the material.

MIXING:

Mix with a mechanical mortar mixer to an electric drill with a paddle device if possible. Add potable water to bucket and mechanical mixer first, then add dry grout material while mixing. Adjust water temperature to maintain mixed grout temperature from 45°F to 90°F (7°C to 32°C). Mix for a minimum of 4 to 5 minutes. Working time is approximately 15-20 minutes.

Consistency of the grout is dependent on jobsite variables such as ambient temperature, water temperature, product temperature and mixing method.

MIX WATER GUIDELINES:

Plastic consistency – 5.0 quarts
Flowable consistency – 5.5 quarts
Fluid consistency – 5.75 quarts

Adjust the water to achieve the desired flow consistency. Do not exceed 6.25 quarts of water per 50-lb bag. Adding too much water may induce bleeding and segregation. Gauge fluid consistency within 25 to 35 seconds with ASTM C939 Flow Cone Method. For deep pours over 2", extension is required, add up to 25 lbs of

clean dry 3/8" pea gravel for every 50-lb bag. It is important to note that if increased fluidity is needed, do not exceed an 8 inch slump by ASTM C143 to prohibit any segregation from occurring.

PLACEMENT:

Place grout continuously into forms in one placement. CMAX® Grout may be placed by pump. Limit the amount of vibration during grout placement to reduce potential segregation. CMAX® Grout must fill all areas and stay in contact with load bearing area. Remove forms once grout has achieved final set. All machinery near grout placement should be shut down for 24 hours.

CURING:

Use a curing compound in accordance with ASTM C309 upon final set or wet cure with clean potable water on open surfaces for three days. The final color of CMAX® Grout is gray.

PHYSICALS:

	PLASTIC	FLOWABLE	FLUID
Compressive Strength (ASTM C-109 Mod)			
1 day	4000psi	3200psi	2500psi
7 days	9000psi	8000psi	7000psi
28 days	11000psi	10000psi	9000psi
Set Time (ASTM C-266 Mod)			
Initial Set (hours)	4.5	5.5	6.5
Final Set (hours)	6.5	7.5	10
Post Hardened Height Expansion ASTM (C1090)			
28 days	0.03%	0.03%	0.03%
Pre-Hardened Height Expansion ASTM (C827)			
At Final Set	0-0.3%	0-0.3%	0-0.3%

PACKAGING:

CMAX® Grout is available in 50 lb (22.7kg) bags.

TEMPERATURE:

CMAX® Grout may be applied in temperatures ranging from 45°F to 90°F (7°C to 32°C).

STORAGE:

The material should be stored properly in a dry location, protected from moisture, out of direct sunlight, and in an undamaged package.

SHELF LIFE:

CMAX® Grout has a shelf-life of approximately 12 months.

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 concrete, 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 concrete splashes into eyes, rinse eyes with clean water for at least 15 minutes and go to the hospital for further treatment

WARRANTY:

CC Products Incorporated warrants this product to be of merchantable quality when used or applied in accordance with the instructions written herein. The product is not warranted as suitable for any purpose other than the general purpose for which it is intended. Liability under this warranty is limited to the replacement of its product (as purchased) found to be defective, or at the shipping companies' option, to refund the purchase price. In the event of a claim under this warranty, notice must be given to CC Products, Inc in writing. This limited warranty is issued and accepted in lieu of all other express warranties and expressly excludes liability for consequential damages.

CONTACT DETAILS:

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Refer to www.cmaxcement.com for the most current technical data, MSDS, and guide specifications. (Site Under Construction) LEED Eligibility for Regional Materials (MR-c5) and Recycled Content (MR-c4)

