

Rapid Hardening Cement Products

## **CMAX® SELF-LEVELING**

**DESCRIPTION:** CMAX® Self-Leveling is a high performance architectural topping and resurfacing product that can be used indoors and outdoors. CMAX® Self-Leveling rapidly levels, maintains workability for 20 minutes, and produces a smooth, strong surface with high-bond strength. CMAX® Self-Leveling is ready for foot traffic in 2 to 3 hours and ready for coatings in 12 hours. As an interior and exterior product, CMAX® Self-Leveling is durable in wet or dry conditions.

**USES:** Use CMAX® Self-Leveling for finished floors in commercial, institutional and recreational facilities.

**APPLICATION:** Apply CMAX® Self-Leveling when a high quality, fast, topping is required that can be polished. CMAX® Self-Leveling is ideal for projects that need long flow life and working time while achieving high early strength. CMAX® Self-Leveling cures to a natural (off-white) color. A customized appearance can be achieved by adding integral colors and/or decorative aggregate. Protective coatings, sealers or epoxies can be applied per the manufacturer's recommendations after 12 hours.

SURFACE PREPARATION: Substrate must be clean, sound concrete that is free of gypsum compounds and all materials that may inhibit bond such as: oil, curing compound, dust, mastic, bond breakers, and other surface contaminants.

Mechanical methods of surface preparation such as shot blasting are preferred. Surface must be ICRI CSP 3 to 5. Acid etching the substrate is not recommended. Surface must be dry and be properly primed. Surface and ambient temperatures must be between 50°F to 90°F (10°C TO 32°C).

**PRIMING:** When placing CMAX® Self-Leveling as a decorative topping, CMAX® epoxy primer with sand broadcast to refusal is the preferred method of priming. When CMAX® Self-Leveling is not being placed as a decorative topping, CMAX® Acrylic

Primer may be applied to the prepared concrete substrate. Follow all product specifications and instructions

**MIXING:** Add one bag of CMAX® Self-Leveling to 4 to 4.5 quarts (3.8 to 4.3 L) of clean, potable water. Mix 3 to 5 minutes until the mixture is smooth and lump-free. Avoid mixers that entrap large amounts of air. Mixed CMAX® Self-Leveling should be used within 20 minutes at 70°F (21°C). Maintain material temperature between 60°F and 80°F (16°C and 27°C). Do not exceed 4.5 quarts (4.3L) per bag.

PLACEMENT: Arrange work area to permit continuous placement without cold joints. Pour or pump the CMAX® Self-Leveling onto the prepared and primed substrate with a minimum thickness of 1/8" (3mm) over the highest point. A minimum of 3/8" (10mm) thickness is required for polished flooring. All existing joints and mobbing cracks must be honored up through the topping. CMAX® Self-Leveling will flow and level out within its 15 minute flow life. Use a gauge rake to coax the material into place as required. Use a spiked roller to remove any entrapped air. For thicknesses greater than 1.5" (3.8cm), extend each 50-lb (22.7kg) bag of CMAX® Self-Leveling with 25 lbs (11.3 kg) of clean, dry 3/8" (10 mm) pea gravel.

**CURING:** No wet curing is required under normal conditions at 70°F (21°C). If used in exterior applications, apply a fine water mist to the newly hardened surface of CMAX® Self-Leveling as soon as it can be done without marring the surface, and continue until one hour after final set. Avoid excessively dry, windy, hot, or sunny conditions.

**POLISHING:** CMAX® Self-Leveling may be polished after 24 hours at normal conditions. CMAX® Self-Leveling grinds and polishes much like concrete and can achieve a very high gloss and Distinctness of Image due to its high density and low polymer content.

**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, and follow ACI 306 Procedures for Cold Weather Concreting.

**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 and follow ACI 305 Procedures for Hot Weather Concreting.

**YIELD AND PACKAGING:** CMAX® Self-Leveling is available in 50-lb (22.7 kg) bags. Yield is 0.45 ft³ per 50-lb (22.7 kg) bag. Coverage is 15 ft² to 16 ft² (1.4 m² to 1.5 m²) at 3/8" (10 mm) thickness and 11 ft² to 12 ft² (1.02 m² to 1.11 m²) at ½" (13 mm) thickness for flat surfaces.

**SHELF LIFE:** CMAX® Self-Leveling 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.

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 or use 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 even t 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.

### **OVERVIEW**

### Highlights:

Decorative: Designed specifically for polishing and decorative flooring applications

Outstanding Clarity and Gloss: Highly polishable due to lower polymer content and high density

Versatile: Use as a topping, resurfacer or underlayment, incorporate colors and aggregates to create numerous design possibilities

Fast Track: Foot traffic in 2 to 3 hours, coatings in 12 hours, grind and polish in 24 hours

High Strength: 5000 psi (34.5 MPa) in 24 hours, 6500

psi (44.8 MPa) in 28 days

Interior/Exterior: Durable in dry and wet areas

## **Testing compliant with:**

**ASTM C1708** 

MasterFormat® 2016		
03 01 50	Maintenance of Cast Decks	
	and Underlayment	
03 53 19	Concrete Overlayment	
03 54 16	Hydraulic Cement Underlayment	

## **TYPICAL PHYSICAL DATA**

Working Time	20 minutes
Flow Life	15 minutes

Compressive Strength, ASTM C109 Modified		
4 hours	3000 psi (20.7 MPa)	
24 hours	5000 psi (34.5 MPa)	
28 days	6500 psi (44.8 MPa)	

Slant Shear Bond Strength, ASTM C882 Modified	
7 days	2100 psi (14.5 MPa)
28 days	2900 psi (20.0 MPa)

Tensile Strength, ASTM C307		
7 days	210 psi (1.44 MPa)	
28 days	1900 psi (13.1 MPa)	

# Flexural Strength, ASTM C348 24 hours 850 psi (5.86 MPa) 28 days 1900 psi (13.1 MPa)

All data obtained at 70 °F (21°C)

**CONTACT DETAILS:** CC Products Inc., a division of DBC Corporation, 2400 East Katella Ave, Suite 800, Anaheim, CA 92801 (714) 523-2006 Fax: (714)523-2037

Refer to <u>www.cmaxcement.com</u> 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)

Manufactured and Packaged in USACC Products a DBC Corporation

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