

# **CMA**X<sup>®</sup> **SBG**, (SLAB BEDDING GROUT)

**Cement**

5/21/2018

**RAPID HARDENING CEMENT PRODUCTS**

**PROVEN TECHNOLOGY FOR OVER 25 YEARS**

CMax<sup>®</sup> SBG is a modified Portland Cement II/V and fine aggregate with proprietary and patented admixtures. Obtaining ultra-rapid setting characteristics with no chlorides, no corrosive reactions, no metallics and non-shrink. Requires only adding water to form a cementitious flowable grout

CMax<sup>®</sup> SBG is ideal for slab bedding for precast concrete roadway panels. Voids under sub-grade and precast concrete panels fill load transfer slots and longitudinal joints as product exhibits no bleeding and high pumpability with 8 inches placement thickness.

## **APPLICATION INSTRUCTIONS**

### **METHODS:**

May be applied in ambient temperature range of 40°F (4°C) to 90°F (32°C).

CMax<sup>®</sup> SBG is mixed and pumped into the bedding grout distribution (grout hole ports) at 1 1/4" (32mm) system cast into the underside of each slab.

Grout is pumped into the lowest of the two connected ports and should continue to be pumped until grout extrudes from the uphill ports. Allow placement time as the grout is pumping to disperse beneath the slab and fill until all voids and channels have been grouted

### **MIXING:**

CMax<sup>®</sup> SBG requires only the addition of clean potable water. Per 50 lb. bag use 6.7qt (6.3 L) +/- (0.5L) based on job site conditions which may range (26 - 29%) water per bag.

Place the potable water into the mixer and gradually add grout while mixer is running.

CMax<sup>®</sup> SBG can be mixed in a mortar mixer and or other high shear mixer recommended at minimum 1800 rpm. Mix for 2-3 minutes or until lump free, with continued agitation on low speed until grout is dispersed from mixer.

Recommend 5 bags per batch at 50 lbs. each based on 60°F-70°F temperatures and may be adjusted per job site conditions.

## **PHYSICAL PERFORMANCE**

<b>Curing Time</b>	<b>Compressive Strength</b>	
1 hour @ 73°F	2500 psi	(17.2 MPa)
1 hour @ 45°F	2000 psi	(14.0 MPa)
7 days @ 73°F	7600 psi	(52.4 MPa)
7 days @ 45°F	6000 psi	(41.4 MPa)
Expansion	ASTM C940	0 - 1%
Bleeding @ 30 mins.	ASTM C940	0 - 0.05%
Flow Time	ASTM C939	< 30 secs
Bond Strength @ 24 hour	CT 551	300 psi
Total Chloride Content	Max.	0.05%
Total Sulphates Content	Max.	5.0%
Set Time, Min. @ 73°F	25 Initial	35 Final
Set Time, Min. @ 45°F	35 Initial	45 Final
Height Change, ASTM C1090,1,3,7, and 28 days	0 - 0.2%	
Freeze-Thaw Loss (25 cycles at 10% NaCl)	1.0%	

Table 1

**AVAILABILITY:** 40 lb. bags and 50 lb. bags

**YIELD:** Approx. 0.50 cubic ft. (14.1L), 50 lb. bags

**SHELF LIFE** Approx.9 months in original, unopened bags

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## **SURFACE:**

All grout areas should be free of loose material, clean and free of dirt, oil, grease and fines from concrete surface

## **CURING:**

No curing membranes or compounds are required. However no negative affect occurs if placed per project specifications.

## **P R E C A U T I O N S :**

Mix no more than can be placed within 15 minutes.

Do not re-temper grout or overwater mix.

Hot temperatures, above 90°F (32°C), will reduce the setting time.

Ice water, (32°F, 0°C), may be used to extend working time.

At colder temperatures, below 50°F (10°C), use hot water to bring mix temperature to 70°F (21°C).

## **APPLICABLE STANDARDS:**

ASTM C191 Standard Test Method for Time of Setting of Hydraulic Cement by Vicat Needle

ASTM C928 Standard Specification for Packaged, Dry, Rapid Hardening Cementitious Material for Concrete Repairs

ASTM C939 Standard Test Method for Flow of Grout for Pre-placed-Aggregate Concrete, flow cone method.

California Test 417 Sulfates and California Test 422 Chloride by weight %

ASTM C1090 Standard Test Method for Measuring Changes in Height of Cylindrical Specimens of Hydraulic Cement Grout

ASTM C1107 Standard Specification for Packaged Dry, Hydraulic Cement Grout (Non-shrink)

## **PHYSICAL/CHEMICAL PROPERTIES**

CMax® SBG provides typical physical properties as shown in Table 1, when tested in accordance with ASTM C109 Mod. and applicable standards. Lab mixing ASTM C305

Complies with Caltrans Section 40.8.02A

Conforms with ASTM C1107M-14. Complies with NY DOT 704-15-1

## **WARRANTY:**

CC Products Incorporated warrants this product to be of merchantable quality when used or applied in accordance with the instructions 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 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.

**PROPOSITION 65 WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

