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Concrete  
Finishing

# MasterTop® 210COR

Ferrosilicon non-oxidizing metallic-aggregate  
dry-shake surface hardener

FORMERLY LUMIPLATE®

## PACKAGING

55 lb (25 kg) multi-wall bags

## YIELD

Approximately 1.5 – 2.5 lb/ft<sup>2</sup>  
(7.3 – 12.2 kg/m<sup>2</sup>). Do not apply  
more than 1 lb/ft<sup>2</sup> in a single pass.  
Consult your Master Builders  
Solutions representative for specific  
recommendations.

## COLOR

Light reflective, and natural

## SHELF LIFE

18 months when properly stored

## STORAGE

Store in unopened packaging in a  
clean, dry environment protected from  
sunlight at 50 to 90° F (10 to 32° C).

## VOC CONTENT

0 g/L less water and exempt solvents

## DESCRIPTION

MasterTop 210COR is a ferrosilicon non-oxidizing metallic-aggregate surface hardener. It is ideal for industrial floors requiring added abrasion and impact resistance where moisture or humidity may be a factor. MasterTop 210COR is also available in a light reflective formula.

## PRODUCT HIGHLIGHTS

- Non-dusting to improve the wear of concrete surfaces
- Non-oxidizing properties prevent rusting or corroding floor surfaces, even in constantly wet conditions
- Ready to use formulation requires no jobsite measuring or mixing for ease of use
- Abrasion resistance is 3 – 4 times greater than mineral aggregate hardeners and toppings, to withstand heavy and frequent traffic
- Impact resistance is twice that of concrete to withstand typical loading and shipping environments
- Application rates from 1.5 to 2.5 lbs/ft<sup>2</sup> (7.3 to 12.2 kg/m<sup>2</sup>) are adaptable to accommodate jobsite conditions and performance requirements
- Smooth or slip-resistant finishes are suitable for a variety of flooring needs
- Greater surface density than concrete decreases penetration by oils and chemicals for easier and less costly maintenance
- Light reflective formulation available to help conserve energy
- Specially sized and graded ferrosilicon aggregate provides consistent finishing characteristics and metallic uniformity from lot to lot

## APPLICATIONS

- When metallic-aggregate surface hardeners must withstand wet conditions
- For commercial and industrial floors subject to deicing salts
- Where light-reflective flooring is desired
- Floors subject to heavy or frequent traffic
- Salt-storage facilities
- Multi-purpose sporting facilities
- Recreational facilities

## LOCATION

- Indoor applications
- Over freshly placed concrete

## HOW TO APPLY

### SURFACE PREPARATION

1. Pump, place, or otherwise convey the base concrete at a slump not in excess of 5" (127 mm) for a slab on grade. (Please contact your local Master Builders Solutions representative for special information on suspended-slab application.) After the concrete has been placed, immediately screed, then bullfloat or highway straightedge the surface.
2. Do not apply the dry shake into the bleed water. If excessive bleed water is present, remove standing water by dragging a hose across the surface, using a squeegee or other approved method.
3. Early moisture loss and rapid setting around the perimeter of the slab are typical; monitor the slab closely for proper timing of the floating.

### APPLICATION

1. Apply and integrate one-half to two-thirds of the total amount on the first application and the remaining portion(s) on the subsequent application(s). Do not apply more than 1.0 lb/ft<sup>2</sup> (4.9 kg/m<sup>2</sup>) in 1 pass. An automatic spreader is the most efficient, economical, and precise method of applying a dry shake.
2. Allow the first application to absorb moisture, then reprofile the surface of the slab using an 8 – 10 ft wooden bullfloat or wood-laminate modified highway straightedge perpendicular to the direction on the screeding. A wooden bullfloat is preferable because it tends to open the slab rather than close it off. Closing off the slab can possibly trap water under the dry-shake layer. To maintain flatness, avoid shaking the bullfloat handle.
3. Near initial set when the slab can support the weight of a person leaving a 1/8 – 1/4" (3.2 – 6.4 mm) depression, float the surface with a floating machine equipped with clip-on float blades. Hand float the edges with wood floats or darbies. Reprofile in both directions using the modified highway straightedge to achieve desired flatness.

4. Without delay, evenly apply the remaining portion of the product. Float the surface again with clip-on float shoes. Reprofile, if needed. If desired, pan float, followed by finish troweling. NOTE: Do not use pan floats to incorporate the dry shake into the base concrete. They may be used only for final floating to achieve flatter floors. Hand float edges with wood or laminated canvas-resin floats or darbies. Do not use magnesium floats, as this can lead to discoloration.

### TROWELING

1. When the concrete allows, conduct 2 – 3 mechanical trowelings. Leave the prepared slab untouched until the surface has lost its sheen and can support the weight of a finisher and a finishing machine. At this point conduct the first troweling of the surface.
2. On the first application keep trowel blades as flat as possible without digging into the surface.
3. As the surface tightens further, the trowel blades may be gradually raised to produce the desired surface. Remove all marks and pinholes in the final slightly raised trowel application. Do not burnish colored dry-shake floors.

NOTE: All moisture used to incorporate dry-shake material must come from within the slab. UNDER NO CIRCUMSTANCES SHOULD WATER BE APPLIED TO AID IN THE INCORPORATION OF THE DRY SHAKE. Under severe or rapid drying conditions (hot and/or windy), MasterKure ER 50 evaporation reducer or other approved materials may be mist sprayed onto the dry shake to prevent rapid-moisture loss. MISUSE OF THESE MATERIALS CAN COMPROMISE COLOR AND PERFORMANCE OF THE DRY SHAKE.

### CURING

1. At the completion of final troweling and when the surface will not be marred, apply an approved membrane curing compound.
2. After drying, protect hardened surface by covering it with a scuff-proof, non-staining builder paper.
3. Keep floors covered and free of traffic and loads for a minimum of 10 days after completion.
4. Maintain ambient temperature at 50° F (10° C) or above during the curing period.
5. Do not moist cure or cure with polyethylene.

6. For VOC-compliance on colored floors, contact your local Master Builders Solutions representative for curing recommendations.

### JOINTS

#### OPTION 1: SEMI-RIGID EPOXY JOINT FILLER

After a minimum of 90 days\*, apply a semi-rigid epoxy joint filler, such as MasterSeal CR 190 or MasterSeal CR 100 in all non-dynamic control and saw-cut construction joints. Place the joint filler in compliance with manufacturer's instructions.

\*Please refer to ACI 302R-96, Chapter 9.10. Delay the installation of the joint filler as long as possible to allow the slab(s) to adequately cure. Proper curing will reduce the amount of separation between the slab and the joint filler.

#### OPTION 2: IRON-ARMORED JOINTS

1. Remove the concrete at the joints while it is still fresh. Remove it to a depth of 1/2" (13 mm) at the joint line and taper it back to the surface level over a width of 4" (102 mm).
2. Mix the MasterTop 200 surface hardener with enough water to produce a stiff mortar. Hand float the area where the concrete has been removed, working up sufficient paste at the surface to ensure an integral bond.
3. Immediately place the MasterTop 200 mortar into the prepared joint, then rescreed the area to level. Use 4.50 lbs (2.0 kg) per lineal foot, which is 2.25 lbs (1.0 kg) per foot for each side of the joint. Refer to the Masterplate 200 product data sheet for details on the application of MasterTop 210COR surface hardener.

### CURING

1. After final troweling and when the surface can no longer be marred, apply an approved Master Builders Solutions membrane-forming curing compound in accordance with directions. For VOC-compliance consult your local Master Builders Solutions representative for recommendations for other curing methods.
2. Light reflective floors require extra care during construction. Protect the newly constructed floor from staining and damage until the structure goes into service.

#### FOR BEST PERFORMANCE

- Do not use on floors exposed to acids, their salts, or similar materials that seriously and rapidly attack Portland cement.
- Do not apply over concrete containing more than 3% air content when tested by ASTM C 173, ASTM C 231, or ASTM C 138 procedures.
- Never burnish-trowel a light-reflective surface hardener.
- Use cleaning agents with a high alkaline content for continuous maintenance programs.
- Do not place dry shake on slab without a roof cover.
- Many factors can affect the final shade and appearance of a concrete floor. Master Builders Solutions cannot be held responsible for poor workmanship, inadequate protection, or other matters beyond our control.
- Make certain the most current versions of product data sheet and SDS are being used; visit [www.master-builders-solutions.com/en-us](http://www.master-builders-solutions.com/en-us) to verify the most current versions.
- Proper application is the responsibility of the user. Field visits by Master Builders Solutions personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

#### HEALTH, SAFETY AND ENVIRONMENTAL

Read, understand and follow all Safety Data Sheets and product label information for this product prior to use. The SDS can be obtained by visiting [www.master-builders-solutions.com/en-us](http://www.master-builders-solutions.com/en-us), e-mailing your request to [mbsbscst@mbcc-group.com](mailto:mbsbscst@mbcc-group.com) or calling 1(800)433-9517. Use only as directed.

**IN CASE OF EMERGENCY: Call CHEMTEL +1 (800) 255-3924 or if outside the US or Canada, +1 (813) 248-0585.**

#### LIMITED WARRANTY NOTICE

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