

# MasterTop<sup>®</sup> CC 700

## Concrete Hardener and Dustproofers

### DESCRIPTION

MasterTop CC 700 is a magnesium-fluorosilicate concrete hardener and dustproofers that bonds chemically with the concrete to strengthen and harden floors that are porous, readily absorptive and only moderately hard.

### CONSUMPTION

See Chart on page 2.

### PACKAGING

30 L/Pail

### COLOR

Clear liquid

### SHELF LIFE

1 year when properly stored

### STORAGE

Store in original, unopened containers in cool, dry area. Protect from freezing in the container; do not store below 350 °F (2 0°C).

### APPLICATION

#### FEATURES AND BENEFITS

Concrete hardener	Strengthens floors that are porous, readily absorptive, and only moderately hard; ideal for aged concrete surfaces
100% reactive with the free lime in concrete	Produces a breathable, dense, abrasion-resistant surface
Tightly binds together the cement, sand and aggregate particles	Improves resistance to most acids, alkalis, organic and inorganic chemicals, oils, greases
Nonfilm forming	Reduces cleaning and maintenance costs for floors

Compatible with most resilient tile adhesives

Suitable for substrates to be covered by carpeting

### APPLICATION

#### Application

- warehouses
- aircraft hangers
- commercial garages
- chemical installations
- hospitals
- breweries
- schools
- dairies
- bakeries
- canneries
- laundries
- textile mills
- industrial plants
- computer rooms under false floors

#### Location

Interior and exterior

#### Substrate

Concrete

#### How to Apply

##### Surface Preparation

1. New concrete must be thoroughly dry and cured a minimum of 10 days; for best results cure for a full 28 days.
2. Surfaces must be clean, dry, and free of all loose dirt, oil, wax, sealers, curing and other compounds, and other foreign matter or carbonation.

1. The number of applications and dilution ratios for MasterTop CC 700 are dependent on the porosity and density of the concrete. Refer to coverage chart. Two applications of MasterTop CC 700 are generally required on concrete and nonresin-based terrazzo floors. Woodfloated, broom-finished, or porous floors may require a third application applied full strength.
2. Apply MasterTop CC 700 by roller, spray, brush, or squeegee. Bubbling indicates activation of the MasterTop CC 700 into the concrete. Distribute evenly and mop up excess solution or puddles.

Composition MasterTop CC 700 is a magnesium fluorsilicate hardener

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### Test Data

Property	Results	Test Methods
Abrasion resistance, depth of wear, in (mm)30 minutes Untreated concrete MasterTop CC 700 treated*	0.0264(0.7) 0.0025(0.06)	ASTM C 779*
Abrasion resistance, depth of wear, in (mm)60 minutes Untreated concrete MasterTop CC 700 treated*	0.0428(1.1) 0.0106(0.27)	ASTM C 779*

\*Concrete was cured for 28 days. Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

### CHEMICAL RESISTANCE

ACI Standard 302.1R - 89 magnesium fluorosilicate hardeners can be used to increase concrete resistance to chemicals

including, but not limited to the following:

Aluminum sulfate	Lead refining solutions, 10%
Ammonium chloride	Lignite oils
Barium hydroxide	Machine oils
Beef fat	Magnesium chloride
Calcium hydroxide	Magnesium sulfate
Calcium nitrate	Manganese sulfate
Carbon dioxide	Manure
Carbonic acid	Mash, fermenting
Castor oil	Mercuric chloride
Coal-tar oils	Mercurous chloride
Cottonseed oil	Mine water, waste
Creosote	Mineral oil
Cresol	Molasses
Distillers slop	Mustard oil
Ethylene glycol	Nickel sulfate
Ferric chloride	Oleic acid 100%
Ferric sulfate	Olive oil
Ferrous chloride	Paraffin
Ferrous sulfate	Phenol, 25%
Fish oil	Phosphoric acid, 85%
Fruit juices	Pickling brine, 10%
Glucose	Poppy seed oil
Glycerine	Potassium aluminum sulfate
Hydrogen sulfide	Potassium carbonate
Iodine	Potassium chloride
Lactic acid, 25%	Potassium dichromate
Potassium persulfate	10% Soybean oil
Potassium sulfate	Sugar

Rapeseed oil	Sulfite liquor
Sea water	Tallow and tallow oil
Silage	Tannic acid
Sodium bromide	Tanning liquor, 10%
Sodium carbonate	Tobacco
Sodium chloride	Walnut oil
Sodium dichromate	Zinc chloride
Sodium nitrite	Zinc sulfate
Sodium sulfate, 10%	Zinc nitrate
Sodium sulfite, 10%	Zinc sulfate
Sodium thiosulfate	

### CONSUMPTION

Type of Surface	(m <sup>2</sup> /l)(Mixed Material)	Applications	Dilution Ratio (by Volume) Water to MasterTop CC 700	Ratio
Light to moderately troweled floors	(2.45)	2	1 to 1first 1 to 2second	1.17
Heavy-duty or densely troweled floors	(2.45-7.35)	2	3 to 1first 1 to 2second	0.92
Rough finished floors	(2.45)	2	3 to 1first 1 to 2second	1.17
Terrazzo (nonresin based)	(7.35)	2	3 to 1first	0.50
Concrete polished sheen	(4.9-7.35)	3	4 to 1first 3 to 1second 2 to 1third	0.78

To estimate the quantity of MasterTop CC 700 needed for an application, divide the area of the floor by the cover-age rate (m<sup>2</sup>/L) of mixed material. Multiply this number by the ratio (in last column). Example: 1,000m<sup>2</sup> floor, moderately troweled: 1,000÷2.45 = 408L mixed material x 1.17 = 477.5L of MasterTop CC 700 needed. Recommendations for the number of applications and the dilution ratios are based upon average conditions. Coverage varies with application method, porosity, and texture of concrete.

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### Concrete

1. After the first application, allow the floor to dry until no longer visibly wet.
2. If crystals develop during the second application, flush the surface liberally with clean water, preferably hot. At the same time, rapidly brush the floor with a stiff-bristled broom. Then mop up excess water and allow the surface to dry.

### Concrete, Polished Sheen

1. To achieve the appearance of a polished sheen from traffic, use 3 applications of MasterTop CC 700. The first is diluted 4 to 1 (water to MasterTop CC 700), the second is diluted 3 to 1, and the third is diluted 2 to 1 (see Yield section).
2. As the last application is drying, wait for the uniform appearance of white crystals. Flood the floor with water and buff with a commercial floor buffer abrasive pad. Continue buffing until the floor acquires a patina or polish and the whiteness is gone.
3. The above recommendation is for dense, steel-troweled floors. Older or more porous concrete may require less dilution or a lower coverage rate or more than 3 applications.

Caution: Unusually wet or oily environments will be more slippery with this surface treatment.

### Terrazzo (Non Resin Based)

1. Do not allow the first application to dry. While the surface is still damp, flush it thoroughly with clean hot water and then allow it to dry until no longer visibly wet. For the second application, follow the same procedure but mop up excess wash water and allow the surface to dry.
2. White crystals developing after the first or second application signifies too strong a mix or the surface reaching maximum hardness. If this occurs, stop the application and flush the surface with clean, hot water; broom with a stiff bristle broom, and allow to dry. If any applications remain, increase the dilution ratio to avoid further problems.

## CLEANING

Clean all tools and equipment with water immediately after use. Dispose of unused material according to local regulations.

## MAINTENANCE

1. Routine sweeping and washing of floors with mild conventional cleaners and detergents is recommended.
2. Remove all abrasive grit and wipe up corrosive spills as soon as possible.

## FOR BEST PERFORMANCE

- In event of freeze/thaw, warm and restir to uniformity. If separation is persistent, discard MasterTop CC 700 -Do Not Apply
- When mixing or handling MasterTop CC 700 in other than the original sealed container, use a plastic bucket
- Small amounts of sediment or a cloudy appearance in the container will not affect product performance
- Do not apply to uncured concrete; concrete must be properly wet cured
- Do not apply MasterTop CC 700 to floors that have been previously sealed or treated with curing and parting compounds unless these products have been chemically or mechanically removed
- MasterTop CC 700 can be used for exteriors. If the surface has been steel troweled, however, traffic can polish the surface and make it slippery
- Although MasterTop CC 700 is chemically resistant, its application in specific chemical environments should be checked with BASF Technical Service
- For resilient tile applications, conduct an adhesion test
- Never use MasterTop CC 700 with plastic concrete or mortar or resin-based terrazzo mixes
- MasterTop CC 700 will not salvage honey-combed or structurally unsound surfaces
- Do not allow MasterTop CC 700 to dry on terrazzo (resin-based) floors except as indicated in application instructions
- Do not allow MasterTop CC 700 to come in contact with any glass, fabric, metal, or painted surfaces. Immediately wipe contaminated surfaces with clean water-saturated cloth, then wipe dry with a second clean cloth
- For subsequent coatings applications, perform proper surface preparation and consult the coating manufacturer for more instructions
- When a curing compound must be applied to freshly placed concrete, use a non film-forming

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curing compound such as Sonneborn 's Kure-N-Harden. Kure-N-Harden not only cures, but surface hardens concrete to some degree; consequently, somewhat less than the recommended 2 applications of MasterTop CC 700 will sufficiently harden the concrete

- Make certain the most current versions of product data sheet and MSDS are being used
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite

## HEALTH AND SAFETY

MasterTop CC 700

Danger - Corrosive

MasterTop CC 700 contains magnesium fluorosilicate and sulfuric acid.

### Risks

Contact with skin or eyes may cause burns. May be absorbed through skin. Repeated or prolonged exposure increases the risk of absorption. Inhalation of vapors may cause irritation. May cause irritation and burns of mouth, throat and stomach. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

## Precautions

KEEP OUT OF THE REACH OF CHILDREN.

Prevent contact with skin, eyes and clothing. Wash thoroughly after handling. DO NOT take internally. Prevent inhalation of vapors or mists. Use only with adequate ventilation. Use impervious gloves, eye protection if used in poorly ventilated area, use respiratory protection. Contain hazardous residues. All label warnings must be observed until container is commercially cleaned or reconditioned.

### First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. SEEK IMMEDIATE MEDICAL ATTENTION. In case of skin contact, wash affected areas with soap and water. Remove and wash contaminated clothing. If irritation persists SEEK MEDICAL ATTENTION. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Refer to Material Safety Data Sheet (MSDS) for further information.

## VOC CONTENT

0 lbs/gal or 0 g/L per gallon of coating

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MT CC 700 V.2 1507

® = registered trademark of a MBCC Group member in many countries of the world

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**STATEMENT OF RESPONSIBILITY**

The technical information and application advice given in this Master Builders Solutions publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

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**NOTE**

Field service where provided does not constitute supervisory responsibility. Suggestions made by Master Builders Solutions either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not Master Builders Solutions, are responsible for carrying out procedures appropriate to a specific application.

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