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Concrete
Finishing

MasterKure[®] HD 300WB

Concrete hardener and dustproofer

FORMERLY LAPIDOLITH[®]

PACKAGING

5-gallon (18.9 L) pails
55-gallon (208 L) drums

COLOR

Clear liquid

YIELD

See Chart on page 4.

STORAGE

Store in unopened containers in a cool, dry area between 35° and 85° F (4° and 29° C). Keep from freezing.

SHELF LIFE

15 months when properly stored.

VOC CONTENT

0 g/L, less water and exempt solvents.

DESCRIPTION

MasterKure HD 300WB is a magnesium fluorosilicate concrete hardener and dustproofer that bonds chemically with the concrete to strengthen and harden floors that are porous, readily absorptive, and only moderately hard.

PRODUCT HIGHLIGHTS

- Hardens and densifies concrete floors to reduce absorption and prolong service life
- 100% reactive with the free lime in concrete to produce a dense, abrasion-resistant yet breathable surface
- Tightly binds together the cement, sand, and aggregate for improved chemical resistance
- Non-film forming, resulting in reduced cleaning and maintenance costs
- Compatible with most resilient tile adhesives

APPLICATIONS

- Interior and exterior
- Floors requiring a hard, dense, chemical-resistant finish
- Floors subject to heavy traffic and abrasion
- Floors that must resist penetration of contaminants

SUBSTRATES

- Concrete
- Terrazzo (non-resinous)

HOW TO APPLY

SURFACE PREPARATION

1. New concrete should be cured per ACI 308 Guidelines. For best results, allow concrete to air dry for at least 72 hours. Concrete should be at least 10 days old and preferably 28 days old before application of MasterKure HD 300WB.
2. Surfaces must be clean, dry, and free of contaminants, including carbonation byproducts.

APPLICATION

1. The number of applications and dilution ratios for MasterKure HD 300WB are dependent on the porosity and density of the concrete. Refer to coverage chart. Two applications of MasterKure HD 300WB are generally required on concrete and non-resin-based terrazzo floors. Wood-floated, broom-finished, or porous floors may require a third application of product at full strength.
2. Apply MasterKure HD 300WB by roller, spray, brush, or squeegee. Bubbling indicates reaction of MasterKure HD 300WB with the concrete. Distribute evenly and mop up excess solution or puddles.

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. Use hot water if available. At the same time, rapidly brush the floor with a stiff-bristled broom.
3. Mop up excess water and allow the surface to dry.

CONCRETE, POLISHED SHEEN

1. To achieve the appearance of a polished sheen, use 3 applications of MasterKure HD 300WB. See Yield Chart for dilution ratios of each coat.
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 using an 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 a stronger mix, lower coverage rate or more than three 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. The appearance of white crystals after the first or second application indicates that the mix may be too strong, or that the surface has reached maximum hardness. If this occurs, stop the application and flush the surface with clean, hot water; scrub with a stiff-bristle broom, and allow to dry. Increase the dilution for any remaining applications to minimize crystal formation.

CLEAN UP

Clean all tools and equipment with water immediately after use. Thoroughly flush sprayers. 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

- If MasterKure HD 300WB freezes, warm and restir to uniformity. If separation is persistent, discard product.
- When transferring MasterKure HD 300WB from the original sealed container, use only plastic buckets or pails.
- 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 MasterKure HD 300WB to floors that have been previously sealed or treated with curing and parting compounds unless these products have been chemically or mechanically removed.
- MasterKure HD 300WB can be used for exteriors. However, if the surface has been hard-troweled, traffic can polish the surface and make it slippery.
- Although MasterKure HD 300WB is chemically resistant, its application in specific chemical environments should be checked with Master Builders Solutions Technical Service.
- For resilient tile applications, conduct an adhesion test.
- Do not apply MasterKure HD 300WB to resin-based terrazzo mixes.
- MasterKure HD 300WB will not remediate honeycombed or structurally unsound surfaces.
- Do not allow MasterKure HD 300WB to dry on terrazzo floors except as indicated in application instructions.
- Do not allow MasterKure HD 300WB to come in contact with any glass, fabric, metal, or painted surfaces. Immediately wipe contaminated surfaces with a clean water-saturated cloth, then wipe dry with a second clean cloth.
- For subsequent coating applications, consult coating manufacturer for surface preparation and application instructions.
- For professional use only; not for sale to or use by the general public.
- Make certain the most current versions of product data sheet and SDS are being used; call Customer Service (1-800-433-9517) 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.

Technical Data

Composition

MasterKure HD 300WB is a magnesium fluorosilicate hardener.

Compliances

- Recommended for use on all classes of concrete floors as noted in Table 1.1, ACI Standard 302.1R
- USDA compliant for use in meat and poultry areas

Test Data

| PROPERTY | RESULTS | TEST METHODS |
|---|---------------|--------------|
| Abrasion Resistance , depth of wear, in (mm) ASTM C 779* | | |
| 30 minutes | | |
| Untreated concrete | 0.0264 (0.7) | |
| MasterKure HD 300WB treated* | 0.0025 (0.06) | |
| Abrasion Resistance , depth of wear, in (mm) ASTM C 779* | | |
| 60 minutes | | |
| Untreated concrete | 0.0428 (1.1) | |
| MasterKure HD 300WB treated* | 0.0106 (0.27) | |

*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 magnesium fluorosilicate hardeners can be used to increase concrete resistance to chemicals including, but not limited to the following:

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

Yield

| TYPE OF SURFACE | FT./GAL (M ² /L) (MIXED MATERIAL) | APPLICATIONS | DILUTION RATIO (BY VOLUME) WATER TO MasterKure HD 300WB | RATIO |
|---------------------------------------|---|--------------|---|-------|
| Light to moderately troweled floors | 100 (2.45) | 2 | 1 to 1 first 1 to 2 second | 1.17 |
| Heavy-duty or densely troweled floors | 100 – 300 (2.45 – 7.35) | 2 | 3 to 1 first 1 to 2 second | 0.92 |
| Rough-finished floors | 100 (2.45) | 2 | 1 to 1 first 1 to 2 second | 1.17 |
| Terrazzo (nonresin based) | 300 (7.35) | 2 | 3 to 1 each | 0.50 |
| Concrete, polished sheen | 200 – 300 (4.9 – 7.35) | 3 | 4 to 1 first 3 to 1 second 2 to 1 third | 0.78 |

To estimate the quantity of MasterKure® HD 300WB needed for an application, divide the area of the floor by the coverage rate (ft²/gal or m²/L) of mixed material. Multiply this number by the ratio (in last column). Example: 8,000 ft² floor, moderately troweled: 8,000 ÷ 100 = 80 gallons mixed material x 1.17 = 93.6 gallons of MasterKure HD 300WB 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.

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, e-mailing your request to 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.

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