

PRODUCT DATA SHEET

Sikagard[®]-300 HD WB

(formerly MKure HD 300WB)

CONCRETE HARDENER AND DUSTPROOFER

PRODUCT DESCRIPTION

Sikagard[®]-300 HD WB 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.

USES

Sikagard[®]-300 HD WB may only be used by experienced professionals.

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

Substrates

- Concrete
- Terrazzo (non-resinous)

PRODUCT INFORMATION

Chemical Base	Sikagard [®] -300 HD WB is a magnesium fluorosilicate hardener.
Packaging	5-gallon (18.9 L) pails 55-gallon (208 L) drums
Shelf Life	15 months when properly stored.
Storage Conditions	Store in unopened containers in a cool, dry area between 35° and 85° F (4° and 29° C). Keep from freezing.
Color	Clear

CHARACTERISTICS / ADVANTAGES

- Hardens and densifies concrete floors to reduce the absorption and prolong the 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

APPROVALS / STANDARDS

- 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

TECHNICAL INFORMATION

Abrasion Resistance

Untreated concrete	0.0264 in (0.7 mm) depth of wear after 30 minutes	(ASTM C 779*)
Sikagard®-300 HD WB treated*	0.0025 in (0.06 mm) depth of wear after 30 minutes	
Untreated concrete	0.0428 in (1.1 mm) depth of wear after 60 minutes	(ASTM C 779*)
Sikagard®-300 HD WB treated*	0.0106 in (0.27 mm) depth of wear after 60 minutes	

*Concrete was cured for 28 days.

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			

APPLICATION INFORMATION

Coverage	Type of Surface	Ft ² /Gal (M ² /L) (Mixed Material)	Applications	Dilution Ratio (By Volume) Water to Sikagard®-300 HD WB	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 Sikagard®-300 HD WB 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 the last column). Example: 8,000 ft² floor, moderately troweled: 8,000 ÷ 100 = 80 gallons mixed material x 1.17 = 93.6 gallons of Sikagard®-300 HD WB needed.

Recommendations for the number of applications and the dilution ratios are based on average conditions. Coverage varies with application method, porosity, and texture of concrete.

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

APPLICATION INSTRUCTIONS

- If Sikagard®-300 HD WB freezes, warm and restir to uniformity. If separation is persistent, discard the product.
- When transferring Sikagard®-300 HD WB 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 Sikagard®-300 HD WB to floors that have been previously sealed or treated with curing and parting compounds unless these products have been chemically or mechanically removed.
- Sikagard®-300 HD WB can be used for exteriors. However, if the surface has been hard-troweled, traffic can polish the surface and make it slippery.
- Although Sikagard®-300 HD WB is chemically resistant, its application in specific chemical environments should be checked with Sika Technical Service.
- For resilient tile applications, conduct an adhesion test.
- Do not apply Sikagard®-300 HD WB to resin-based terrazzo mixes.
- Sikagard®-300 HD WB will not remediate honeycombed or structurally unsound surfaces.
- Do not allow Sikagard®-300 HD WB to dry on terrazzo floors except as indicated in application instructions.
- Do not allow Sikagard®-300 HD WB 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 the 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 the product data sheet and SDS are being used.
- Proper application is the responsibility of the user. Field visits by Sika personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

SUBSTRATE 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 Sikagard®-300 HD WB.
2. Surfaces must be clean, dry, and free of contaminants, including carbonation byproducts.

APPLICATION

1. The number of applications and dilution ratios for Sikagard®-300 HD WB are dependent on the porosity and density of the concrete. Refer to the coverage chart. Two applications of Sikagard®-300 HD WB 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 Sikagard®-300 HD WB by roller, spray, brush, or squeegee. Bubbling indicates the reaction of Sikagard®-300 HD WB 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 Sikagard®-300 HD WB. See the Yield Chart for the 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 it 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.

CLEANING OF TOOLS

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

MAINTENANCE

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.

LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

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