

K A U F M A N

PRODUCT
INFORMATION

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SureHard

Description

SureHard is a clear colorless liquid solution of inorganic polymers that react with concrete and masonry to seal, densify and harden. SureHard penetrates into the surface and reacts with the lime to form a hard, insoluble gel within the pores, thus closing the small voids to penetration by foreign matter making it denser and harder. As a result, SureHard is naturally anti-microbial. Surfaces treated with SureHard are not only more abrasion resistant, but have increased resistance to many chemicals. Because SureHard penetrates into the surface and chemically reacts with it, the effects of the treatment will last many years. SureHard is water-based, has 0 g/l VOC content, and meets the requirements from the USDA for Incidental Food Contact.

Uses

SureHard is effective in making the concrete denser, harder and consequently dust proofed. It will reduce the penetration of oil and grease, and increase the acid resistance. Resistance to moisture penetration is greatly improved. SureHard also neutralizes the alkali in the concrete, thus increasing the bonding and life of future paints and adhesives.

SureHard is recommended for use on concrete surfaces - both inside and out. Typical recommended areas include industrial plants, warehouses, malls, food processing plants, breweries, textile mills, freezers, parking decks, etc. SureHard lasts longer than many coatings.

Specifications

Active Ingredients	Balanced blend of silicates
Specific Gravity	1.2
Flash Point	None
Skid Resistance (ASTM E-303)	Good
Depth of Penetration	Approx. 5mm
Water Absorption (ASTM C-642)	3.5% in 24 hrs.
Compressive Strength (ASTM C-109)	Up to 10% greater than untreated concrete
Abrasion Resistance (ASTM C-779)	
Reduction of Wear	>50%
Increased Wear	>200%
Resistance	
Drying Time	6 hours for foot traffic 24 hours for wheel traffic
Yellowing	None
Water Vapor Transmission Rate (ASTM E-96)	5.3 grains/hour/ft ²
VOC Content	0

Packaging

5 gallon pail
55 gallon drum

Coverage

Coverage is influenced by surface conditions and porosity as well as job requirements. The following rates are approximate, assuming average concrete, finish, temperature and other factors.

<u>Condition</u>	<u>Regular Troweled</u>	<u>Hard Troweled</u>
Newly placed	300-400 ft ² /gal.	500 ft ² /gal.
Aged	200 ft ² /gal.	250 ft ² /gal.

One-two coats recommended. Increase coverage rate for each succeeding coat.

Surface Preparation

New Concrete:

After concrete finishing operations are complete and all surface water has disappeared, cure with Silicure at 200 ft²/gallon, water, properly used sheet materials or SureHard.

Aged Concrete:

All surfaces to be treated must be clean, sound and free of foreign matter and laitance. Remove any membrane-curing compound. Apply SureHard to the surface by spray, roller, or soft bristle brush. Aggressively scrub into surfaces with a mechanical scrubber or bristle broom. This scrubbing will help achieve maximum penetration and will begin to polish hard-toweled floors.

Keep surfaces wet with SureHard for a minimum of 30 minutes and continue scrubbing and/or brooming. When product begins to thicken, sprinkle with water and scrub another 5-15 minutes. At this time, thoroughly flush excess SureHard with clean water and remove all solution from the floor by squeegee and wet vacuum. This residue solution is non-toxic and can be emptied into a sanitary sewer. Normally, one coat is all that is required, however, on porous rough-textured, or broom finished surfaces a second application may be required. The second application can be installed 2-4 hours following the first and is recommended to assure maximum densification and positive protection from contaminant penetration. Floors are available for occupancy after removal of the residue and are dry

Read Recommended Field Procedures for SureHard prior to use.

Warning

Failure to thoroughly wash and remove all excess material from floor surfaces may result in unsightly white stains. If white crystals develop after any application, stop. This signifies that the surface has become saturated and has reached its maximum effectiveness. Flush with clean hot water, and broom with a stiff bristle brush to remove before it dries. If other areas remain to be treated, dilute SureHard to avoid further problems.

Notes

Protect metal, glass, wood, paint, aluminum and brick from contact with SureHard. If accidentally applied to these surfaces, wash with clean water immediately. Always test the adhesion of any tile or carpet adhesives to SureHard. SureHard should be dry for 7 days before attempting to apply adhesives over it. *Read complete Safety Data Sheet before using.*

Prevent SureHard from freezing in the original containers. If used over colored concrete, it should be two months old and a test area should be used to be certain the results are satisfactory.

For fast track projects reduce the wet cure time, and allow the concrete to dry for a minimum of 24 hours prior to application of SureHard. Otherwise, allow the concrete to cure for a minimum of 7 days. Insufficient drying of the concrete will prevent full penetration of SureHard, thereby reducing the effectiveness of the material.

Chemical Resistance

AC1515R from the American Concrete Institute recommends the use of alkali silicate treatments to increase concrete resistance to attack from the following chemicals:

Technical Information

Test results were achieved under laboratory conditions. Statistical variations will occur based upon mixing methods, temperature & humidity, test methodology, site conditions, curing conditions, application methods, and equipment.

Acetic Acid, <10%	Coconut Oil	Lead Reining Solutions, 10%	Potassium Dichromate
Aluminum Sulfate	Copper Chloride	Lignite Oils	Potassium Hydroxide, 15%
Ammonium Carbonate*	Copper Sulfate	Linseed Oil	Potassium Nitrate
Ammonium Chloride	Corn Syrup	Machine Oil	Potassium Sulfate
Ammonium Hydroxide*	Cottonseed Oil	Magnesium Chloride	Potassium Persulfate
Ammonium Nitrate	Creosote	Magnesium Nitratel	Rapeseed Oil
Ammonium Sulfate	Cresol	Manure	Rosin*
Anthracene*	Cumol	Methyl Alcohol	Sea Water
Barium Hydroxide*	Ethyl Alcohol	Mine Water, waste	Sodium Bicarbonate
Beef Fat	Ferric Chloride	Mineral Spirits	Sodium Bromide
Benzene	Ferric Nitrate*	Molasses	Sodium Carbonate
Borax*	Ferric Sulfate	Mustard Oil	Sodium Chloride
Boric Acid	Fish Oil	Nickel Sulfate	Sodium Dichromate
Buttermilk	Formaldehyde, 37%	Nitric Acid, 20%	Sodium Hydroxide, 10%
Calcium Chloride	Formic Acid, 90%	Oleic Acid *, 100%	Sodium Nitrate
Calcium Hydroxide*	Fruit Juices	Olive Oil	Sodium Nitrite
Calcium Nitrate*	Glucose	Paraffin	Sodium Sulfate
Calcium Sulfate	Glycerin	Peanut Oil	Sodium Sulfite
Carbonic Acid	Honey*	Phenanthrene	Sodium Thiosulphate
Castor Oil	Humic Acid	Phenol, 25%	Soybean Oil
China Wood Oil	Hydrochloric Acid, 10%	Phosphoric Acid, 80%	Sugar
Chromic Acid, 5% & 10%	Hydrogen Sulfide	Poppy Seed Oil	Sulfur Dioxide
Cider	Iodine	Potassium Aluminum Sulfate	Toluene
Coal Tar Oils	Lactic Acid, 25%	Potassium Carbonate	Zinc Chloride
Cobalt Sulfate	Lead Nitrate, 25%	Potassium Chloride	Zinc Nitrate*
			Zinc Sulfate

*Not harmful to concrete

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