

# CHEM HARD



## CHEMICAL HARDENER AND DUSTPROOFER FOR CONCRETE

### DESCRIPTION:

CHEM HARD is a magnesium silicofluoride that reacts chemically with the free lime and calcium salts in hardened concrete to make a more dense and durable surface. It will effectively penetrate a concrete surface and make it hard, free from dusting and highly resistant to corrosion and abrasion.

### PRIMARY APPLICATIONS:

- Horizontal and vertical surfaces
- Schools
- Industrial floors
- Commercial buildings
- Home basements
- Warehouse flooring

### FEATURES / BENEFITS:

- Hardens and dustproofs concrete surfaces
- Prolongs floor life
- Resists acids, alkalis, oils and salts
- Simplifies cleaning
- Can be used without interrupting production schedules

### SPECIFICATIONS / COMPLIANCES:

- CHEM HARD complies with General Services Administration and U.S. Army Corps of Engineers Specifications for magnesium silicofluoride floor hardeners.

### TECHNICAL APPLICATIONS:

#### Typical Performance

Applications	Cure Time
Foot traffic	4-6 hours
Wheel traffic	24 hours

CHEM HARD helps protect concrete against the harmful effects of:

- Caustic soda
- Calcium chloride
- Sodium chloride
- Soap solutions
- Ammonium chloride
- Solvents
- Fuel oils
- Sugar solutions

### COVERAGE:

Extremely porous concrete will require application rate up to 2.5 m<sup>3</sup>/liter diluted as specified in the instructions below.

CHEM HARD is applied in up to three coats as shown.

### PACKAGING:

CHEM HARD is packaged in 210 Liter drums, and 20 Liter pails.

### COAT

### DILUTION

<b>1st coat:</b>	1 part CHEM HARD - 2 part water
<b>2nd coat:</b>	1 part CHEM HARD - 1 part water
<b>3rd coat:</b>	2 part CHEM HARD - 1 part water

**NOTE:** All three coats may not be necessary to harden the floor. If the floor should show patches of white on drying, immediately flood with water and scrub the floor with a mechanical scrubber, rinse and dry. Do not attempt further treatment.

### DIRECTIONS FOR USE:

Surface Preparation - The surface to be treated should be clean, free of dust, oil and paint and preferably dry. New concrete surfaces should be at least 7 days old prior to application of CHEM HARD. Membrane forming curing compounds should not be used on new concrete if CHEM HARD is to be applied. Extremely soft and porous surfaces should be saturated with water prior to application of hardener. Six hours later, or when the surface is dry, apply the 1st coat of CHEM HARD and proceed as indicated previously. This pre-wetting concentrates the chemical in the top level of the concrete rather than deeper in the matrix. The final coat will then harden at the top surface and yield maximum wearing and resistance qualities. In some instances, or in some selected areas, a surface may require an additional application of undiluted CHEM HARD to complete hardening and dustproofing.

**Mixing** - CHEM HARD is easily diluted in water with mild agitation.



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**Placement** - Flood each coat of CHEM HARD onto the surface and spread with a soft fiber broom, squeegee, or mop. Allow the solution to soak into the

concrete for 10-15 minutes and redistribute any puddles that remain. Treated surfaces should be thoroughly dry before overcoating. Drying time may vary from 4-12 hours depending upon the temperature, humidity, and whether the concrete is indoors or outdoors. As the various coats of CHEM HARD are applied, each succeeding coat will yield increased coverage because the concrete surface is in the process of hardening and becoming more dense.

After the third coat, the floor should be thoroughly flushed with water and scrubbed with a stiff broom to remove any residual material. If the floor should show patches of white upon drying, immediately flood with water and scrub the floor with a mechanical scrubber, rinse and dry. Do not attempt further treatment.

### CLEAN-UP

Clean brushes, tools, equipment and flush sprayer with potable water immediately after use.

### PRECAUTIONS / LIMITATIONS:

- CHEM HARD is not recommended for application to colored concrete surfaces.
- Allow the product to dry 4-6 hours before exposure to traffic.
- CHEM HARD is a water-based material and must be kept from freezing. If excess CHEM HARD is left on the concrete surface, a white residue may form and should be removed by scrubbing immediately.