

## SEAL HARD®

Concrete Sealer, Densifier, Dustproof, Chemical Hardener

### MANUFACTURER

L&M Construction Chemicals, Inc.

14851 Calhoun Road

Omaha, NE 68152

Phone: 402-453-6600

FAX: 402-453-0244

Website: [www.lmcc.com](http://www.lmcc.com)

Website: [www.sealhard.com](http://www.sealhard.com)

### PRODUCT DESCRIPTION

SEAL HARD is a proprietary, colorless, environmentally safe chemical solution that increases the wear surface strength of concrete floors subjected to pedestrian and vehicle traffic. SEAL HARD penetrates concrete surfaces to seal, dustproof, densify and harden them. SEAL HARD floors last longer, cost less to maintain, are safe to use, and are guaranteed to resist dusting for years after application.

Through a chemical-ion exchange process, SEAL HARD develops internal bonds which densify the concrete substrate into a hardened, chemically-cured, homogeneous concrete mass that dustproofs, resists abrasion, and reduces oil and water penetration. This chemical-ion densifying process begins immediately upon treatment and continues through the initial six months following application, at which time the treatment becomes complete and permanent.

With its odorless, VOC free formula, SEAL HARD is environmentally safe to use. SEAL HARD is also safe to own. The deeply penetrating chemical action leaves no film and will not alter the natural non-slip texture of the concrete floor. Treated floors conform to ADA and OSHA requirements.

SEAL HARD treated floors provide a significant savings in maintenance costs over conventional acrylic, epoxy and urethane sealers. SEAL HARD will not yellow, discolor, chip, peel or show unsightly wear patterns with use. SEAL HARD treated floors resist tire marks. In fact, the more a SEAL HARD floor is used and as it matures, the better it looks and more durable it becomes.

**Basic Use:** SEAL HARD is recommended for use in high performance areas subjected to fork lift and tow motor traffic: warehouses, distribution centers, manufacturing plants, textile mills, bottling plants, coolers and freezers, food processing plants, canning factories, breweries, bakeries, meat and poultry processing plants, service garages, grocery stores, discount retail stores, hub transfer facilities.

Other uses include concrete floors subjected to heavy pedestrian traffic, such as: civic centers, sports arenas, stadiums, hospitals, airports, museums, schools and

grocery stores; parking decks, sewage treatment plants, dairies, fish processing plants, refineries and water treatment plants.

### ESTIMATING

**Container Sizes:** SEAL HARD is readily available from an international network of stocking distributors in factory-sealed 5 gallon (18.9 liter) and 55-gallon (208 liter) containers. Each container is properly identified with product name and batch number.

**Typical Application Rate:** 200 ft<sup>2</sup>/gallon (5 m<sup>2</sup>/liter)

### TECHNICAL DATA

#### Applicable Standards:

Green Spec listed

National Floor Safety Institute High Traction

Recommended for ACI 302, Class 1 through 6 concrete floors, and Class 9, super flat floors

USDA, ADA, OSHA Approved

Canadian Health Department-Food Facility Safe

#### Typical Properties:

Type	Proprietary Blend
Flash Point, °F	None
Abrasion Resistance, ASTM C 779	
Increased wear resistance	+225%
Skid Resistance, ASTM E 303	Good
NFSI 101A	“High Traction”
SCOF-Wet or Dry	>0.6
Water Absorption, ASTM C 642	
% Reduction, Average	81%
Water Vapor Transmission Rate, ASTM E 96	
Grains/Hour/Ft <sup>2</sup>	5.27
Perm	7.36
Surface Breathable	Yes
Odor:	None
Color:	Clear
UV Stability	Excellent, No Discoloration
VOC (gms/Liter):	0.0

### INSTALLATION

**New Concrete Surface Preparation:** After final troweling, moist cure concrete or apply clear, non-residual curing compound. Plastic sheeting or curing fabrics may be used, but care should be taken to prevent objectionable stains. Allow new concrete to cure a minimum of 72 hours; seven days are recommended for best results. Clean concrete of any dirt, residue, debris or curing compound membrane before installing SEAL HARD. Membrane curing compounds must be completely removed with L&M CITREX or other approved non-acid cleaner before installation of SEAL HARD.



**SEAL HARD**



**Application:** To properly cured concrete, minimum 3 days old, apply directly from container one undiluted, saturating coat. Aggressively scrub into the surface with a mechanical scrubber or bristle broom. This scrubbing will help achieve maximum penetration and will begin to polish hard-troweled floors. Do not use metallic brushes.

Keep surfaces wet with **SEAL HARD** for a minimum of 30 minutes and continue scrubbing and/or brooming. When product begins to thicken, sprinkle with water and continue scrubbing for another 10-15 minutes. At this time, thoroughly flush excess **SEAL HARD** with clean water and remove all solution from the floor by squeegee and wet vacuum. This diluted residue solution is non-toxic and can be emptied into a sanitary sewer. **Warning:** Failure to thoroughly wash and remove all excess material from floor surfaces may result in unsightly white residue stains. Where extra protection is needed or desired, a second application can be installed approximately 2-4 hours following the first coat, or anytime thereafter. Floors are immediately available for traffic after removal of the rinse residue.

**Old (Existing) Concrete Surface Preparation:** Surfaces must be clean and structurally sound. Remove all residue, oil, membrane curing compounds, sealers, contaminants, and laitance in order to insure maximum penetration and chemical reaction. Problems may occur with acid etching and mechanical abrasion. Repair all holes, cracks and deteriorated areas with L&M repair mortars.

**Application to Old (Existing) Concrete:** Follow the same application procedures as found under *New Concrete*. Depending on surface porosity, application rate may range from 100-200 ft<sup>2</sup> /gallon (2.5-5m<sup>2</sup>/L). Additional coats may be required in some situations due to porosity or extreme dusting.

**Approved Applicators:** For best results L&M has trained and qualified a large number of approved applicators and recommends their use. Additional warranties are available if an approved installer is used. Contact L&M for details and further warranty requirements.

## FOR BEST RESULTS:

- Install by an L&M approved applicator
- Apply when surface temperatures are above 40° F (5° C).
- Not effective on extremely porous or worn concrete.
- **SEAL HARD** is not a curing compound. Use on concrete that is less than three days old will inhibit the penetration of **SEAL HARD** and will reduce its ultimate effectiveness.
- **SEAL HARD** is a colorless solution that will not alter the appearance of the concrete surfaces. It will, therefore, not hide serious staining or excessive wear. For porous, worn or stained concrete surfaces, contact your local L&M representative for special assistance.
- In hot weather, pre-dampen concrete surfaces with water to cool. After standing water dissipates, apply **SEAL HARD**.
- Immediately wash off over-spray from glass, aluminum, or highly-polished surfaces with water to avoid etching of surfaces. Flush equipment with water to clean. Do not allow **SEAL HARD** to dry before flushing excess from surfaces.
- On new concrete placements: we recommend finishing the concrete to a hard trowel finish per ACI-302.1R- 8.6.1.

## PRECAUTIONS

Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Do not take internally. Wear skin and eye protection. Please refer to product Material Safety Data Sheet (MSDS) before using. Dispose of diluted rinse water only into a sanitary sewer. Conform to local regulations for disposal.

## STORAGE/SHELF LIFE

SEAL HARD containers are to be stored in a clean, dry area between 40°F and 100°F (5°-40°C). Shelf life of SEAL HARD in unopened containers is a minimum of two years if properly stored. Do not freeze.

## WEBSITE

L&M's convenient internet website offers instant access to Tech Data Sheets, Material Safety Data Sheets, product updates, and other useful information. Visit [www.lmcc.com](http://www.lmcc.com) and follow the easy steps. L&M is ready to respond to your concrete information needs - anytime - anywhere!

## SHORT SPEC

033000: Concrete densifier, sealer, hardener. All exposed concrete surfaces to be treated to harden, seal and densify exposed concrete. Applied by an Approved Applicator - 10 year warranty. "SEAL HARD" by L&M Construction Chemicals, Inc. See complete guide spec at [www.lmcc.com/specs](http://www.lmcc.com/specs).

## LIMITED WARRANTY

**Requires an approved applicator.** L & M guarantees that, after an initial cure period of 90 days, properly prepared and treated sound concrete surfaces are chemically hardened and densified for a minimum of ten (10) years. Should **SEAL HARD** that was installed by an L&M approved applicator fail to perform as specified, L & M will supply sufficient **SEAL HARD** to retreat the failed area.

*This product is warranted to be free of defects in material and workmanship, and conform to L&M Construction Chemicals ("L&M") quality control standards. All recommendations, statements and technical data herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty or guaranty of any kind, expressed or implied including but not limited to, an implied warranty of merchantability or an implied warranty of fitness for a particular purpose. Satisfactory results depend upon many factors beyond L&M's control. User shall rely on his or her own information and tests to determine suitability of the product for the intended use and user assumes all risk, loss, damage, expense and liability resulting from his or her direct use, indirect use or consequential to their use of the product. L&M shall not be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use or inability to use the product. L&M's sole responsibility shall be to replace that portion of the product which proves to be defective. Any warranty claim must be made within six (6) months from the date of the claimed breach. This limited warranty applies only if the product was properly installed and used according to all instructions and was properly stored prior to use.*

### For Professional Use Only.

®SEAL HARD is a registered trademark of L&M Construction Chemicals, Inc

©2009, L&M Construction Chemicals, Inc