



DATA SHEET NO. 3360-235

LIQUI-HARD® Concrete Densifier and Chemical Hardener

DESCRIPTION

LIQUI-HARD concrete densifier and chemical hardener compound is a proprietary, ready-to-use, clear silicate liquid, formulated with chemically reactive materials to harden and dustproof concrete. This waterborne solution, when properly applied, offers substantial improvement in abrasion and chemical resistance and will significantly improve the durability of the concrete surface when compared to untreated concrete. As LIQUI-HARD is applied and penetrates into the concrete surface, a chemical reaction takes place, producing a by-product that fills the pores of the concrete. This process produces a substantially denser concrete surface with enhanced durability. In addition to the densifying and hardening action, LIQUI-HARD also solidifies the concrete, eliminating dusting and pitting.

USES

LIQUI-HARD is recommended for use wherever hardened, dustproofed, and improved chemical- and abrasion-resistant surfaces are required. Ideal applications include floors in industrial plants and warehouses, storage silos, sewage plants, chemical processing facilities, refineries, and heavy pedestrian floor traffic areas, such as civic centers, sports arenas, stadiums, hospitals, airports, and museums. LIQUI-HARD can successfully be used in conjunction with shake-on hardeners.



The INDUROSHINE® system from W. R. MEADOWS combines green certified concrete polishing and diamond grinding equipment with LIQUI-HARD to create a unique, high sheen, wear-resistant concrete floor. Please contact W. R. MEADOWS for more information.

FEATURES/BENEFITS

- Penetrates deeply into concrete to densify and harden surfaces to prevent entry of moisture and other foreign matter.
Dustproofs and improves chemical, petroleum, and abrasion resistance of treated surfaces.
Provides a permanent, attractive sheen with the

- ability to polish.
Protects against scratching or peeling.
Provides a tough, protected surface that will not after-yellow, discolour, or show pedestrian or vehicular traffic wear marks.
Improves light reflectance.
Ready-to-use from container and easy to apply.
VOC compliant.

PACKAGING

18.9 Litre Pails
205 Litre Drums

COVERAGE/APPLICATION RATE

Table with 3 columns: Type of Surface, m²/L, ft²/gal. Rows: *Fresh (Newly Placed), Existing (Old)

*When used as a curing aid on newly placed concrete.

Note: Coverage rates may vary, depending on the finish and porosity of the concrete.

SHELF LIFE

When stored indoors in original, unopened containers at temperatures between 4° - 32° C, optimum performance and best use is obtained within one year of date of manufacture.

SPECIFICATIONS

- Complies with Canada VOC Concentration Limits for Architectural Coatings Regulations.

TECHNICAL DATA

VOC Content: 0 g/L

Continued over ...

W. R. MEADOWS® OF CANADA
70 Hannant Court, Milton, ON L9T 5C1
38 Rayborn Crescent, St. Albert, AB T8N 4B1
(800) 342-5976
Montreal Sales: (877) 405-5186

Hampshire, IL / Cartersville, GA / York, PA / Fort Worth, TX
Benicia, CA / Pomona, CA / Goodyear, AZ / Milton, ON
St. Albert, AB
www.wrmeadows.com

APPLICATION

Surface Preparation ... Fresh Concrete: On newly placed concrete, LIQUI-HARD can be applied after final troweling. *Existing (Old) Concrete:* Surface should be clean and structurally sound. Remove all residues, curing compounds, oils, sealers, contaminants, and laitance before applying LIQUI-HARD. ULTRITE® DEGREASER from W. R. MEADOWS may be used for cleaning. Fill and repair all holes, cracks, and deteriorated areas that have been removed to sound concrete.

For optimum results on fresh, newly placed concrete, use MED-CURE™ curing aid from W. R. MEADOWS immediately after final finishing operations have been completed. Apply LIQUI-HARD according to above existing concrete directions a minimum of three days after placement of concrete.

Mixing ... For optimum performance, gentle mixing or agitation is recommended.

Application Method ... Fresh Concrete: Apply undiluted LIQUI-HARD at approximately 4.91 m²/L (300 ft.²/gal.) using a low-pressure sprayer, such as a Chapin 1949 with a 1.9 LPM spray nozzle, or by spreading evenly with a soft-bristled broom. Do not allow material to puddle on the surface. No further application steps are required for fresh concrete.

Existing (Old) Concrete: Saturate the surface with undiluted LIQUI-HARD by sprayer, squeegee or broom. Keep the surface wet with LIQUI-HARD for a minimum of 30 minutes. (A range of 30-60 minutes may be required depending on temperature and conditions.) NOTE: Pay particular attention to porous and/or dry areas. These areas must be kept wet at all times with LIQUI-HARD. Once the surface begins to gel and become slippery, immediately spray the surface with a light water mist. Scrub the surface with a broom or mechanical scrubber to increase the penetration of LIQUI-HARD. Continue to work LIQUI-HARD into the surface for another 5 - 10 minutes or until LIQUI-HARD becomes gelled and slippery for a second time. At this time, THOROUGHLY flush the surface with water. During the flush process, agitate the surface with a broom to aid in removal of the excess LIQUI-HARD. Remove all excess material with a mop or squeegee. Thoroughly squeegee the surface dry. If there are slippery patches, this is an indication that there is still excess LIQUI-HARD present. These areas should be re-flushed and squeegeed again until the entire surface is dry. (Extremely porous surfaces may require a second application.)

WARNING: Failure to thoroughly wash and remove all excess material from floor surfaces may result in unsightly white stains. Immediately wash off over-spray from glass, aluminum, or highly polished surfaces with water to avoid etching of surfaces. For application assistance, contact W. R. MEADOWS at (800) 342-5976.

Burnishing ... LIQUI-HARD can be burnished to a high sheen on steel trowel concrete floors. A high-speed burnisher (2000 - 2200 rpm) with appropriate maintenance pad is needed.

Drying Time ... 2 to 4 hours. LIQUI-HARD dries very quickly on new, virgin concrete. Drying times may be extended on existing (old) concrete due to surface conditions. Restrict foot traffic for at least four hours, 12 hours is preferable.

Clean Up ... While still wet, equipment may be cleaned quickly and easily with soap and water. Do not allow LIQUI-HARD to dry before flushing excess from surfaces.

PRECAUTIONS

DO NOT DILUTE. Do not apply if the temperature of the concrete is less than 2° C or above 57° C. **KEEP FROM FREEZING.** If frozen, product should be thawed and agitated slightly prior to use.

HEALTH AND SAFETY

LIQUI-HARD is non-combustible. (Flash point is greater than 98.8° C. Direct contact will result in irritation of the skin and eyes. Inhalation of product mist may result in respiratory irritation. Refer to Material Safety Data Sheet for complete health and safety information.

MASTERFORMAT NUMBER AND TITLE

03 35 00 – Concrete Finishing

LEED INFORMATION

May help contribute to LEED credits:

- MRc9: Construction and Demolition Waste Management
- EQc2: Low-Emitting Materials
[For Healthcare and Schools (exterior-applied products) ONLY]

For most current data sheet, further LEED information, and SDS, visit www.wrmeadows.com.

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