



## **Enviro Science Technologies**

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### **LIQUID QUARTZ**

#### **CONCRETE DENSIFIER, SEALER AND CHEMICAL HARDENER**



#### **DESCRIPTION**

LIQUID QUARTZ concrete densifier, sealer and chemical hardener compound is a ready-to-use, colorless liquid, formulated with chemically re LIQUID QUARTZ active raw materials to harden and dustproof concrete. When properly applied, will offer substantial improvement in abrasion and chemical resistance and will significantly improve the durability of the concrete surface when compared to untreated concrete. As is LIQUID QUARTZ applied and penetrates into the concrete surface, a chemical reaction takes place, producing a byproduct that fills in the pores of the concrete. This process produces a substantially denser concrete surface with enhanced durability. In addition to the densifying and hardening action, LIQUID QUARTZ also solidifies the concrete, eliminating dusting and pitting.

LIQUID QUARTZ meets maximum VOC content limits of 400 g/L for Concrete Protective Coatings as required by the U.S. EPA Architectural Coatings Rule. Concrete properly treated with LIQUID QUARTZ is USDA-accepted.

#### **USES**

LIQUID QUARTZ 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. LIQUID QUARTZ can successfully be used in conjunction with shake-on hardeners.

## FEATURES/BENEFITS

- Penetrates deeply into concrete to densify and harden surfaces to help 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 tough, protected surface that won't after-yellow, discolor or show pedestrian or vehicular traffic wear marks.
- Improves light reflectance.
- Ready to use from container and easy-to-apply.
- VOC-compliant ... VOC content is 0 g/L.
- Can help architects earn LEED points in green building applications.

## COVERAGE/APPLICATION RATE

<b>Type of Surface</b>	<b>ft.<sup>2</sup>/gal.</b>	<b>m<sup>2</sup>/L</b>
*Fresh (Newly Placed)	300	7.36
Existing (Old)	200	4.91

\*When used as a curing compound on newly placed concrete.

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

## PACKAGING

5 Gallon (18.93 Liter) Pails

55 Gallon (208.20 Liter) Drums

## APPLICATION

**Surface Preparation...***Fresh Concrete:* On newly placed concrete, LIQUID QUARTZ can be applied, as you would a cure, 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. LIQUID QUARTZ CITRUS DEGREASER from EST INC. may be used for cleaning. Fill and repair all holes, cracks and deteriorated areas that have been removed to sound concrete.

Apply LIQUID QUARTZ according to the "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 LIQUID QUARTZ at approximately 300 ft.<sup>2</sup>/gal. (4.91 m<sup>2</sup>/L) using a low-pressure sprayer 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 LIQUID QUARTZ by sprayer, squeegee or broom. Keep the surface wet with LIQUID QUARTZ 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 LIQUID QUARTZ. Once the surface begins to gel and becomes slippery, immediately spray the surface with a light water mist. Scrub the surface with a broom or mechanical scrubber to increase the penetration of the LIQUID QUARTZ. Continue to work the LIQUID QUARTZ into the surface for another 5-10 minutes or until the LIQUID QUARTZ becomes gelled and slippery for a second time. At this time, THOROUGHLY flush the surface with water. During the flushing process, agitate the surface with a broom to aid in removal of the excess LIQUID QUARTZ. 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 LIQUID QUARTZ 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.

**Burnishing...** LIQUID QUARTZ 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...**2-4 hours. LIQUID QUARTZ 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.

**Cleanup...**While still wet, equipment may be cleaned quickly and easily with soap and water. Do not allow LIQUID QUARTZ to dry before flushing excess from surfaces.

### **Precautions**

DO NOT DILUTE. Do not apply if the temperature of the concrete is less than 35° F (2° C) or above 135° F (57° C). **KEEP FROM FREEZING.** If frozen, product should be thawed and agitated slightly, prior to use.

### **Health Hazards**

LIQUID QUARTZ is non-combustible. (Flash point is greater than 210° F.) 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 for complete health and safety information.