

ZeraHard™ LSD

Lithium Silicate Concrete Densifier & Hardener

DESCRIPTION

ZeraHard™ LSD is a premium high strength waterborne lithium silicate solution designed as concrete floor densifier, hardener and sealer. It reacts with the cementitious ingredients of the concrete floor to densify while allowing deep penetration to chemically harden and fortify the substrate. The treated surfaces resist damage from water moisture and efflorescence while remaining breathable. **ZeraHard™ LSD** is cost-effective treatment that will extend the nominal service life of concrete and reduce ongoing floor maintenance cost. It provides long lasting dust proof performance and abrasion resistance.

USES:

ZeraHard™ LSD is designed to be used as densifier to polished concrete surfaces to harden, densify and protect their attractive and durable finish. It is recommended for concrete floors in warehouses, industrial plants, commercial and residential buildings.

BENEFITS

- Increase durability by improving resistance to freeze thaw effects and improves abrasion resistance and durability.
- Improves weathering, densifies and reduces efflorescence of natural stone, precast stone and cement.
- Imparts an attractive gloss finish to concrete floor
- Protects and fortifies concrete as it seals against moisture damage.
- Application will reduce dusting and increase concrete life.
- VOC-free, no fumes or fire hazard
- Will not yellow, flake or discolor
- Effective on both new and old floors
- Easy to maintain, no waxing necessary
- Resistant to surface whitening

FINISH CHARACTERISTICS

Normally, this product does not change the overall appearance of the substrate. After the material is applied and allowed to dry for 24 hours, it will not be readily apparent that the application has occurred, except the concrete will be fortified and strengthened.

CURE SCHEDULE (23 ° C)

Dry to touch in 1-3 hours. Allow the material to dry for a 12-24 hour period of time to obtain the maximum benefits of the application. This allows the material to

react with the concrete and become an integral part of the substrate.

APPLICATION TEMPERATURE

10-30 ° C. When properly used, this product can reduce water absorption while still maintaining greater than 50% breathability.

APPLICATION

No primer is required. If applying multiple coats, a wet edge should be maintained. If the **ZeraHard™ LSD** dries between applications, water spotting may result. No topcoat is required. Multiple coats of this product are compatible (see information under primer). Compatible with most topical coatings.

SURFACE PREPARATION:

All dirt, oil, dust, foreign contaminants and laitance must be removed to assure a trouble free application. Under certain conditions, a precipitate may be deposited as the lithium solution dries. Substrates with a high acid level will react with the lithium solution and can cause some neutralization of the material before it is absorbed into the surface leaving a white precipitate. This white precipitate is more readily noticeable on darker concrete and substrates. A test should be made to determine that none of these conditions exist. The substrate can be damp prior to application but there should be no standing water or puddles.

PRODUCT APPLICATION: This product is designed as penetrating sealer. Always test for porosity prior to application. Stir material before using. Apply material with a roller, low pressure sprayer, floor scrubber (black pad) or high speed polisher. When applying with scrubber or polisher work wet sealer in manageable area a minimum of 10 minutes, squeegee excess to next area, and repeat. When applying the material maintain a wet edge to reduce chance of water spotting. For more polished appearance, after 12 hours buff with white pad. If a white precipitate should form due to high acid content, puddles, or over application remove with water and stiff broom or floor buffer. This product is developed to densify and strengthen concrete surfaces while still allowing water vapor to escape. However, excessive outside sources of water may cause problems if the hydrostatic pressure is sufficiently great, as some capillary water will be stopped at the depth to which the

ZeraHard™ LSD penetrated. Applications of this material can prevent positive side absorption of water and improve the capability of the substrate to resist spalling. After the product has been in contact with the substrate to allow for penetration and reaction, excess material can be removed by squeegee, mop, rinsing, or allowed to dry. This product may damage vegetation, stain or etch glass, aluminum, metal and plastic. If contamination does occur, rinse thoroughly with water immediately.

Normally one application is all that is required. When multiple applications are desired. It is best to make multiple passes while the substrate is still wet. Avoid overlapping wet to dry as this can cause water spotting because the product will not be able to penetrate a dry area that was treated as well as in an area that has been treated but not yet dried.

CLEANUP: Use any suitable mild detergent with a neutral pH to slightly alkaline pH and water.

Caution! Although very unlikely, some cleaners may affect the color of the treated surface. Test each cleaner in a small area, utilizing your cleaning technique. If no ill effects are noted, you can continue to clean with the product and process tested.

RESTRICTIONS: Restrict the use of the floor to light traffic and non-harsh chemicals 24 hours has passes. Keep the floor dry for this period (excluding the application of the product).

RECOMMENDED FILM THICKNESS

Apply until surface is saturated without puddles. Can be applied by any suitable method such as spraying or mopping etc.

LIMITATIONS & CAUTIONS

- If residual **ZeraHard™ LSD** is allowed to dry on the concrete surface it will leave unsightly deposits that are difficult to remove.
- Extreme caution must be exercised while working with **ZeraHard™ LSD** because it can create slippery surfaces during application.
- Floors treated with **ZeraHard™ LSD** should not be cleaned with or exposed to acidic cleaners, vinegar because acids will cause discoloration or potential damage.
- **ZeraHard™ LSD** is highly alkaline and can react with glass and aluminum. Such areas adjacent to the concrete to be treated should be properly covered for protection.

- The surface can be damp prior to application but there should be no standing water or puddles. The best application would be with a dry substrate.
- Remove all overspray before drying from all glass or metal surfaces as this product can etch the surface.

COVERAGE

When the surface is fully saturated, coverage will largely determined by the porosity of the concrete at the time of treatment. Steel troweled, normally porous concrete or concrete ground to a 80-200 grit surface profile will typically require an application rate of 200 to 400 square feet per US gallon undiluted.

ZeraHard™ LSD may be diluted with water up to 1:1 when treating high quality, hard steel-troweled concrete floors. These floors are usually ground with soft metal bond matrix diamond tooling. Porous concrete should be treated with **ZeraHard™ LSD** applied full strength.

PACKAGING

18.9L/ 5 U.S. gal. units and 55-gallon (208L) drums

STORAGE

Store product in an area so as to bring the material to normal room temperature before using. Continuous storage should be between 10-25 °C. Keep from freezing.

SHELF LIFE

One year in unopened containers when stored between 10-25 °C.

WARRANTY

“The recommendations made and the information herein is the result of accurate laboratory and field tests under controlled conditions. We guarantee that the quality and properties of the materials supplied conform to our standards. Zeraus Products Inc. makes no warranties, expressed or implied, as uses and applications are beyond our control. Zeraus Products Inc. shall not be liable for any injury, loss, or damage (direct or consequential) arising from use or inability to use the products. Before using, the user is urged to pre-test the products in his/her own environment to determine the suitability of the products for their intended use, and the user assumes all risk and liability whatsoever in connection therewith.

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