

Helix LithoGuard



Technical Data Sheet 43.0310DS

Helix Color Systems is a premier line of specialty decorative concrete admixtures manufactured by ChemSystems Inc. Helix Color Systems is manufactured for the discriminating installer or designer who values service and quality. Specializing in custom colors, specialty products, and superior service, Helix Color Systems offers an innovative alternative in the decorative concrete industry.

Description

Helix LithoGuard a high performance industrial flooring surface hardener and protective clear coat is a “micro film forming hybrid inorganic / organic nano lithium™ surface treatment” that hardens and seals concrete floors, producing a very hard, dust repellent, chemical resistant and water tight surface.

For high-demand commercial and industrial settings, Helix LithoGuard is the optimum coating system designed for harsh and high abuse conditions. Whether your surface must tolerate significant foot traffic, large equipment, abrasion, or chemicals, our advanced, versatile, low VOC treatment offers; high durability and bond strength; and ability to withstand UV, abrasion, chemical spills and heavy traffic.

The “Industrial Grade” treatment provides rapid curing, attractive clear glossy finish and easy application for facilities that require maximum protection and little-to-no- downtime. The unique treatment is extremely low in VOC’s (less than 50 grams per liter), environmentally friendly (Green Leaf) and has a very low polymer/ ammonia odor.

Perfect for protecting light to heavy manufacturing, parking decks, food service operations and warehouses. Helix LithoGuard leaves concrete hard, stain resistant, easy to maintain, and light reflective (on smooth finishes). Helix LithoGuard does not significantly decrease the friction coefficient of surfaces.

Product Benefits

- Combines the durable protection of a penetrating densifier with the attractive finish of a high performance glossy clear coating.
- Creates a stronger, more impenetrable, and better-looking finish (satin-glossy) that is dust-proof, resistant to staining (oils and many acids) and deterioration.
- High Performance treatment produces a tough coating for high abuse areas (chemical exposure, impact, or abrasion) that is also an attractive finish that is easy to maintain.
- Rapidly cures into durable finish for facilities that require maximum protection and little-to-no- downtime.
- Tenaciously bonds and reacts with concrete forming a durable insoluble bond with the concrete.
- Forms a protective “micro surface layer” that is breathable, dense and abrasion resistant that will not peel or flake.
- Reduces maintenance, cleaning costs and costly repairs. Simply damp mop or machine scrub

Pre-Application

1. Always test a small area for compatibility before proceeding with application.
2. Do not use on surfaces that have been previously sealed.
3. If after application, white film forms, wash away with water. If it persists, scrub with brush and water.
4. Protect adjacent areas from overspray, especially glass, metal, ceramics, glazed tile aluminum, wood and vegetation. Protect or remove personal items such as watches, jewelry, etc.

Application

1. Cleaning: Helix LithoGuard may be applied to existing, cured concrete of any age. Thoroughly clean all surfaces. Mechanically remove any surface laitance and patch or fix cracks and damaged areas. Remove all membrane forming curing compounds, sealers, oil, grease, dirt, dust, drywall residue and other containments. We recommend thoroughly cleaning the surface with black scrubbing pad (light abrasion) and a neutral pH detergent. We do not recommend etching the surface with an acidic solution because it requires thorough rinsing using a neutral pH cleaner to effectively neutralize the surface (if not properly neutralized the pH may cause whitening.) For best results, clean the surface by sanding the floor with a 60-100 grit sanding screen or diamond abrasive pad. Remove, dust and residue with riding or walk-by “scrubber” using water or broom then water rinse and squeegee surface dry. Avoid using cleaners with citrus (de-limonene) or Butyl compounds.

2. IMPORTANT! (Allow the surface to dry before proceeding.)

3. Mix, Shake or Stir thoroughly before applying. Apply Helix LithoGuard using a micro fiber pad or similar, spreading material thinly and evenly so as to completely cover the substrate. Spread at a rate of 1,500-3,000 square feet per gallon depending on porosity of the surface. Repeat this step as needed until the desired results are obtained. This step is to build a stain resistant micro-film over the substrate. Allow each application to dry at least 30-60 minutes (very important!) before reapplying next coat. Do not over apply. It is critical to apply very thin multiple coats. If applied to thick it will cure improperly and discolor or whiten! Buffing between applications with a hogs hair pad and a high speed burnisher will improve sheen and curing speed.

Surface Protection and Maintenance

- Routine sweeping, mopping, washing and mechanical scrubbing of floors with water and neutral pH cleaners (if necessary) is recommended. Water only is sufficient for most environments.
- DO NOT USE cleaners that are acidic or that have citrus (de-limonene) or Butyl compounds. Although Helix LithoGuard is chemically resistant and helps reduce staining, its application in specific chemical environments and some acidic concentrates, may etch the surface causing a residual stain. Regular maintenance and cleaning will help prolong surface shine. Wipe up any chemical spills as soon as possible. Prior to painting, stripping, or applying resilient tile wait 6-12 hours after application and conduct an adhesion test. Use a stiff broom or power sweeper to remove dirt and dust. Always test adhesion and performance for suitability and desired results before application.

Limitations and Precautions

- Use on interior surfaces only.
- Protect from freezing.
- Agitate before use.
- Keep dry for at least 24 hours after installation
- Do not allow standing water to dwell on surface for 7 days.
- Do not allow traffic until Helix LithoGuard is allowed to completely dry. Generally 30-60 minutes under typical interior conditions.
- Helix LithoGuard will not bridge or fill cracks and will not salvage honeycombed or structurally unsound surfaces.
- Do Not allow Helix LithoGuard to come in contact with any glass, fabric, metal, or painted surfaces. Immediately wipe contaminated surfaces with a clean, water saturated cloth, then wipe dry with a second clean cloth. Important: Helix LithoGuard’s fast drying and extremely durable bonding characteristics will permanently bond to a variety of surfaces and is extremely difficult to remove once cured.) We highly recommend masking off and protecting areas that could be affected by splatters, splashes or over spray.
- For subsequent coatings, consult the coating manufacturer for more instructions.

Coverage Rates

Coverage rates may vary depending on the texture, porosity, age and condition of the concrete, the application method, and other local conditions.

- Steel Trowelled 1,500-3,000 square feet per gallon
- Re-coat applications 3000-4000 square feet per gallon

Shelf Life and Storage

Helix LithoGuard has a shelf life 6 months. Store product indoors, away from heat, moisture and direct sunlight. Do not allow products to freeze.

Package Sizes

Helix LithoGuard is available in 1-gallon and 5-gallon units.

Technical Data

Please refer to the corresponding MSDS for hazard-related information.

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|-----------------------------------|-------------------------------|
| Form..... | milky white, aqueous solution |
| Total..... | Solids 23% |
| Active Ingredients:..... | 100% of total solids |
| Specific Gravity:..... | 1.09 |
| PH..... | 11.5 |
| Film..... | yes |
| Flash Point:..... | None |
| V.O.C. Content..... | Less than 50 gms/L |
| Freeze point..... | 32°F(0°) |
| Abrasion Resistance..... | excellent |
| Depth of Surface Penetration..... | 2-8mm |

Product Handling

For complete instructions on handling and use, consult the corresponding Material Safety Data Sheet before using product.

Safety

Use gloves and glasses when handling

First Aid

Eyes - If contact with eyes, flush thoroughly with water.

Skin - Wash with soap and water.

Internal - Do not induce vomiting. Contact a doctor.

Warranty

Helix LithoGuard, a proprietary product, is warranted to be of uniform quality within manufacturing tolerances. Since control is not exercised over its use, no warranty, expressed or implied, is made as to the effects of such use. Seller's and manufacturer's obligation under this warranty shall be limited to refunding the purchase price of that portion of the material proven to be defective. The user assumes all other risks and liabilities resulting from use of this product. If you have any questions, please contact ChemSystems, Inc.



*For complete information on all CSI products—including product information catalogs, product brochures, color charts, technical specifications, sales aids and more—contact ChemSystems, Inc.

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