



AmeriPolish® SureLock™ Densifier and Densi-Color (Densifier + Color)



DENSIFIER
Liquid Concentrate

MIXES TO MAKE
5 Gallons
*See back panel

PRODUCT FEATURES

◆ DESCRIPTION

Concrete densifier and hardener, compatible with integral colorant.

◆ USES

- Densify and color concrete preliminary to diamond polishing, to obtain a smooth, reflective surface on floor slabs and other concrete products
- Increase sheen, abrasion resistance, water-resistance, and stain resistance of exposed concrete finishes.

AmeriPolish® SureLock™ Densifier is part of a three-component system designed specifically for coloring and polishing concrete floors. To obtain optimum performance, all system components, SureLock™ Dye, SureLock Densifier, and SureLock™ Stain Protector should be used together to lock in colors for long term beauty. SureLock Dye and Densifier are mixed together for application, forming a solution referred to as SureLock™ Densi-Color. SureLock Densifier can be used with dyes and stain protectors from other manufacturers, however, optimum

stain resistance and color retention cannot be assured. SureLock Densifier can also be used without colorant (clear densifier) for polishing or other densifying/hardening requirements.

◆ SELECTION CRITERIA

- SureLock Densifier densifies and hardens concrete surfaces
- Densi-Color adds and enhances color
- Acts to lock color into concrete matrix, minimizing color migration or diffusion
- Chemically bonds to other components of Surelock Color System
- Improves surface resistance to liquid penetration and stains
- Improves abrasion resistance for better wear characteristics
- Minimizes dusting for healthier indoor air quality (IAQ)
- Prepares surface for high gloss diamond polishing
- Penetrates slab surface to deliver solids content deeper into surface layer than

conventional lithium silicates

- Reduces labor and time required for installation compared to some densifiers, because it is spray-applied, does not require labor-intensive scrubbing-in or gel formation, is fast reacting, requires minimal dwell time, and does not require scrubbing-off or wet caustic residue disposal
- Does not leave excess mineral salts (whiting) on surface unless over-applied
- May be applied to new or existing concrete
- Simple one-step application
- Cures quickly; traffic or other finishing operations can usually be resumed one hour after application
- Contains UV stabilizers to help protect colorants in concrete
- Does not contribute to surface crazing
- Helps combat efflorescence and alkali silica reaction (ASR)
- Odorless, non-flammable, VOC compliant (< 40g/L)



◆ SUSTAINABILITY CRITERIA

Polished and exposed concrete floors are inherently sustainable because they eliminate the need for applied floor coverings. Exposed concrete floors are very durable, eliminating the need for periodic replacement of applied floor coverings. Along with easy, low-impact maintenance requirements (dry mop, wash with water or mild cleanser) and elimination of waxing and stripping chemicals, exposed concrete has low life-cycle impacts on the environment.

Surelock Densifier has <40g/L VOCs.

It does not create hazardous construction wastes so it lowers risks to installers and the need for hazardous materials disposal.

Reflectivity of polished and high sheen floors may help optimize lighting and reduce illumination-energy consumption.

Surelock Densifier is shipped as a concentrate to reduce packaging and transportation and storage impacts.

◆ AVAILABILITY

Global.

◆ COST

Cost comparable with conventional lithium silicate-based densifiers.

◆ LIMITATIONS

SureLock Densifier is not a membrane-forming curing compound. It should not be used as a substitute for specified or appropriate curing procedures.

SureLock Densifier is designed to be used in conjunction with Ameripolish® Surelock™ Stain Protector or other appropriate stain protection treatment, and will not provide optimum water, oil or chemical resistance without application and maintenance of additional treatment. While in most cases the SureLock Color System will extend resistance to color fading or dissipating, due to variables in application, maintenance, and the concrete itself, appearance may change over time.

◆ WARRANTY

This product is for use by licensed contractors. Since manufacturer does not exercise control of product's use or project conditions,

AmeriPolish, Inc. represents and warrants only that this product is of consistent quality within manufacturing tolerances. **NO OTHER ORAL OR WRITTEN REPRESENTATION OR STATEMENT OF ANY KIND, EXPRESS OR IMPLIED, IS AUTHORIZED OR WARRANTED BY AMERIPOLISH, INC., INCLUDING THOSE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR THE EFFECTS OR RESULTS OF SUCH USE. AMERIPOLISH, INC. WILL NOT BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING DAMAGES FOR DELAYS OR LOST PROFITS.**

Claims must be made in writing and received within one year from date of product sale to original buyer. Sole remedy shall be replacement of product proven defective.

◆ SHIPPING AND HANDLING

Protect product from freezing.

◆ SAFETY PRECAUTIONS

WARNING: BEFORE USING PRODUCT, READ MATERIAL SAFETY DATA SHEET AND INSTRUCTIONS ON PACKAGING. ALKALINE CONCENTRATE: CONTACT CAN QUICKLY DAMAGE EYES, SKIN AND OTHER BODY TISSUES. HANDLE WITH CARE. EYE, SKIN, AND DIGESTIVE TRACT IRRITANT. DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN. SPRAY MIST IS RESPIRATORY TRACT IRRITANT. Use only with adequate ventilation. Do not breathe vapors or spray mist. Avoid contact with eyes, skin, clothing. Possible developmental hazard: contains lithium, may adversely affect developing fetus. Observe appropriate safety and jobsite controls. Wear appropriate protection including eye protection and chemical-resistant gloves. Ensure fresh air flow during application and until dry. If you experience headaches, dizziness, eye watering, or if air monitoring shows vapor/mist levels above applicable limits, wear a properly fitted P100/organic vapor respirator (NIOSH TC-84A approved), used according to manufacturer's directions, during application and drying.

PRODUCT PROPERTIES

◆ COMPOSITION

SureLock Densifier is a proprietary lithium silicate-based formulation. It is a milky white, odorless liquid concentrate. SureLock DensiColor is a two-part formula consisting of SureLock Densifier and a colorant, SureLock Dye

concentrate. The colorant is a liquid dispersion of dye, and exhibits a color similar to but more saturated than the nominal color of the dye.

◆ PROPERTIES

SureLock Densifier penetrates concrete surfaces and reacts with lime (calcium hydroxide) in the concrete to form insoluble calcium-silicate-hydrates (CSH) crystals; when used with colorant (Densi-Color), these crystals are bonded to colorants. This new CSH creates additional cementitious bonds that harden concrete and plug microscopic pores of the concrete surface to reduce surface porosity. By consuming lime, it also reduces or eliminates efflorescence that can disfigure concrete surfaces. The colorant introduces color into the concrete surface, and can be applied multiple times to build up color.

PRODUCT PLACEMENT

◆ PREPARATION

WARNING: People, property, vehicles, animals, plants, and all surfaces not intended to be dyed should be protected from the product, splash, overspray, and wind drift, using polyethylene sheeting or other proven protective material. If design requires discreet areas of color, mask adjoining areas, lining color edges with painter's blue tape or similar adhesive masking material. **Surfaces, animals, or clothing contacted by dye may be permanently colored.**

SURFACES MUST BE CLEAN AND DRY BEFORE APPLICATION OF THE DYE. NEW SLABS MUST HAVE CURED FOR AT LEAST 28 DAYS BEFORE APPLICATION. For best results perform a moisture content test on both newly-poured and existing slabs. **Slabs with a moisture content 5 lbs per 1000 sf or less show best performance** (calcium chloride test per ASTM F1869). **High moisture levels may affect performance of color.** Do not apply if concrete is frozen, dirty or has standing

water. Test surface absorbency with a light water spray – concrete surface should wet uniformly. If concrete does not wet uniformly, remove any surface contaminants with appropriate cleaning treatment or mechanical process.

◆ DILUTION AND COVERAGE

SureLock Densifier is shipped as a concentrate designed to be diluted with water in a 1:1 ratio to make working solution.

For Densi-Color, the densifier working solution is then mixed with a pre-measured package of SureLock Dye concentrate.

Mixing:

For 1-gallon pack: Pour .5 (3.8 L) gal water into a clean, empty 1.5 gal (5 L) plastic bucket. Add 8 oz (.24 L) SureLock Dye concentrate, mix. Add .5 gal (3.8 L) SureLock Densifier concentrate.

For 5-Gallon Pack: Pour 2.5 gal (9.5 L) water into a clean, empty 5 gal (20 L) plastic bucket. Add 32 oz (.9 L) SureLock Dye concentrate, mix. Add 2.5 gal (9.5 L) SureLock Densifier concentrate.

Coverage varies depending on concrete mixture, porosity, and moisture content and on ambient conditions. Use test areas to determine appropriate application procedure and adjust application rate. As a starting point to determine coverage:

500-700 sf / gal (12-17m² / L)

◆ APPLICATION

Testing: Prior to starting project, apply DensiColor to sample area of each type of concrete to be treated, using applications procedures proposed for project. Confirm that concrete is receptive to DensiColor and color is acceptable.

Project Conditions: Ambient temperature during application should be 40-100°F (4-38°C).

Equipment: Spray apply SureLock DensiColor or clear SureLock Densifier using Patriot™ 500 or Patriot 350 or similar low pressure sprayer with Patriot Gray #8 or similar conical mist tip with 8.4 gal/hr flow at 40 psi (31.8 L /hr at 275.8 kPa). Spread using SureLock™ microfiber pad or similar floor finish applicator pad.

Densi-Color Application Instructions:

1. Grind up to 200-grit resin bond diamonds. (If not using a 200-grit step, grind up to 100-grit resins.)
2. Remove all dust and debris. If wet cleaning is performed, allow surfaces to dry.
3. Vacuum surface thoroughly.
4. Apply SureLock Dye (stand alone). **See SureLock Dye Technical Data Sheet for stand-alone dye mixing instructions.** Spray SureLock Dye to lightly wet surface without creating puddles. Apply in a consistent, overlapping circular motion, holding the wand approximately 12-18 inches above the surface. Dye will absorb into concrete more quickly in some places than others. This is normal and does NOT indicate that extra dye is needed.
5. For acetone-dye mixtures, immediately upon completion of application, run clear acetone through the pump and wand, followed by clean water. For water-dye mixtures, clean with water only. This is recommended between color changes and prior to storing the sprayer between jobs.
6. Allow surface to dry.
7. Spray SureLock Densicolor in an overlapping

- motion. Lightly use applicator to spread Densi-Color evenly on surface. Avoid puddles. **Product does not need vigorous scrubbing-in and will not form a gel.** As product is absorbed into surface, apply additional product as needed until floor starts to reject the product. Over-application or puddles of excess material will lengthen drying time, and may produce white surface residue that must be removed immediately. In the event of over-application, call manufacturer at 800.592.9320 or +1 479.725.0033 for removal instructions.
8. Clean equipment with fresh water before product dries. Overspray on unprotected surfaces should be immediately washed off.
 9. Allow surface to dry.
 10. Polish up to 400-grit resin bond diamonds.
 11. Apply SureLock Dye (stand-alone) again for maximum color, using same method as step 4.
 12. Clean sprayer as in step 5.
 13. Allow surface to dry.
 14. Remove dye residue with an autoscrubber fitted with a white pad and water. Perform white-rag test to assure that residue is removed. Wipe a dry white rag across the floor. A light tinge of residual color on the rag is acceptable,



but any strong color indicates that excessive dye must still be removed. Unremoved dye residue will load resin diamonds and may produce undesirable marks.

15. Polish with 800-grit resins, and 1500-grit or 3000-grit if desired.

Absorption-resistance of densified surface continues to develop over 7 days. However, concrete, even after becoming densified and polished, is still a porous substrate. Densifiers can take 2-6 months to attain full densification.

Clear Densifier Application Instructions

1. Grind up to 200-grit resin bond diamonds. (If not using a 200-grit step, grind up to 100-grit resins.)

2. Remove all dust and debris. If wet cleaning is performed, allow surfaces to dry.

3. Vacuum surfaces thoroughly.

4. Spray SureLock Densifier with overlapping circular motion. Lightly use pad applicator fitted with SureLock microfiber pad or similar microfiber floor finish applicator pad to spread Densi-Color evenly on surface. before product dries. Overspray on unprotected **Product does not need vigorous scrubbing-in and will not form a gel.** As product is absorbed into surface, apply additional product as needed until floor starts to reject the product. Over-application or puddles of excess material will lengthen drying time, and may produce white surface residue that must be removed immediately. In the event of over-application, call manufacturer at 800.592.9320 or +1 479.725.0033 for removal instructions.

5. Allow to dry.

6. Polish with progressively finer abrasives up to 400-grit resin bond diamonds.

7. Apply second application of SureLock Densifier in same manner as first coat. Some slabs may be hard and dense enough to reject second

application of densifier, in which case no further densification is needed.

8. Clean tools and equipment with fresh water before product dries. Overspray on unprotected surfaces should be immediately washed off with fresh water.

9. Allow surface to dry.

10. Polish with 800-grit resins (or higher if desired).

Absorption resistance of densified surface continues to develop over 7 days. However, concrete, even after becoming densified and polished, is still a porous substrate. Densifiers can take 2-6 months to attain full densification.

◆ NEXT STEPS

Apply SureLock Stain Protector following manufacturer's instructions to complete protection and enhance appearance. SureLock Stain Protector is strongly recommended for all colored polished concrete to protect color from staining agents or acidic etching agents, as well as minimizing color loss through diffusion or dispersion. It will also provide excellent protection for uncolored polished concrete.

Allow 24 hours for Stain Protector curing time before burnishing.

Chemical resistance gains strength over time. **Avoid chemical exposure for first 7 days.**

◆ MAINTENANCE

Spills of staining agents or acidic etching agents including acidic food substances (e.g. vinegar, pickle juice) should be cleaned up immediately to minimize damage to surface.

Remove dust and debris with microfiber pad or dry mop.

Surface should be cleaned regularly using an automatic floor scrubber with AmeriPolish® SureLock™ Replenishing Cleaner, mixed with water according to manufacturer's directions. Replenishing Cleaner is a pH neutral formula that will not damage concrete and replenishes the Stain Protector application to maintain liquid and chemical resistance. **DO NOT use acidic cleansers.** Autoscrubber should be fitted with

non-aggressive cleaning tools such as brushes.

Do not perform regular maintenance with aggressive pads such as diamond-impregnated pads or other abrasives. Use of aggressive pads will wear away stain protection and may, in time, wear away color from concrete surface.

Renew SureLock Stain Protector application every two years or more often depending on wear and usage conditions.

◆ First Aid

Ingestion: DO NOT induce vomiting. Drink large quantities of water or milk. Seek medical attention immediately.

Eye Contact: Remove contact lenses. Immediately flush eyes for 15 minutes in clear running water; hold eyelids open. Seek medical attention immediately.

Skin Contact: Wash affected area with soap and water. DO NOT attempt to neutralize with chemical agents. If irritation persists, seek medical attention.

Inhalation: Remove affected person to fresh air. Wash mouth and nasal passages with water repeatedly. If breathing difficulties persist, seek medical attention.



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