

# Sure-Tough ST 7141

## APPLIED POLYMER SOLUTIONS, LLC

### PRODUCT PROFILE

**GENERIC DESCRIPTION** **CONCRETE COLORANT AND SEALER SYSTEM** - a one component UV stable water based colorant for interior or exterior concrete. This product hardens, dustproofs and adds color to concrete and combines with a one component water based low VOC fast drying sealer designed to protect and beautify decorative concrete and other compatible colorant products. Ideal for residential or commercial broom finish concrete including porches, driveways, patios, sidewalks and pool decks. This product is also suitable for interior concrete floors in basements or garages.

- BENEFITS OF USE**
- This product is compatible with most concrete and cement compositions and is compatible with alkaline substrates.
  - The coloring compounds are of the type used in printing inks and exterior lithographs and as such are durable and color fast.
  - Contains Zero VOC's and is compliant nationwide
  - All colors are compatible when mixed together and this allows for a broad color range for final color selection.
  - Colorant is UV color stable.
  - This penetrating formula is easy to use, clean and maintain.
  - Densifies the concrete as it colors the surface.
  - Sold as a concentrate for easy storage and shipment.

**COLORS** Sand, Saddle brown, Walnut, Burnt Sienna, Olive green and Steele blue. Many other colors are available with a lead time and minimum quantities.

### CHARACTERISTICS/FINISHES

**SURFACE** This product does not change the overall appearance of the substrate except for the addition of the effects of coloring. After the material is applied and allowed to dry, it will not be readily apparent that the application has occurred, except the concrete will be colored. Sealer will leave a Satin Finish

**PRIMERS** None required. If applying multiple coats, a wet edge should be maintained

**TOPCOATS/FINISHES** ST 7141 Sealer. Multiple coats of this product are compatible (see information under primer).

### TECHNICAL SPECIFICATIONS

**VOC** Meets all federal VOC guidelines as well as the SCAQMD rule 1113

**RECOMMENDED THICKNESS** COLORANT: 300-800 sq. ft./ gal (based on concrete porosity) SEALER: 300-600 sq. ft./gal

**ABRASION RESISTANCE** The application of this product will increase the abrasion resistance of most substrates. Results will vary according to substrate type.

**ADHESION** Because this material becomes an integral part of the surface that is coated and does not form an impermeable barrier, delaminations do not occur.

PACKAGING	Size	Part A	Dilutes with Water
	Colorant	1 quart	1 gallon
	Sealer	1/2 gallon	1 gallon

**STORAGE TEMP** 65°F - 85°F (18°C - 30°C) in a dry area. Avoid excessive heat and freezing.

**SHELF LIFE** 1 years in an unopened container

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### SURFACE PREPARATION

**SURFACE** All dirt, oil, dust, foreign contaminants, water proofing agents, waxes and laitance must be removed to assure a trouble free application. When necessary, a suitable cleaning agent is utilized prior to further surface preparation. The concrete should be properly cured for a minimum of 28 days prior to the application.

\* For Porous concrete such as broom finishes or stamped concrete, power wash the surface to remove all stains or use any other suitable cleaning method. There should be no sealers or coatings present to affect surface penetration of the colorant. Any stains or contaminants not removed may cause some surface discolorations when the colorant is applied. Make sure the surface is completely dry before applying the colorant.

\* For non-porous concrete (mechanically finished), the surface should be profiled with an appropriate grinder or other acceptable equipment to a 150 grit finish or equivalent. Generally, metal bond 40s and 80s are used prior to the grinding the slab with the metal bond 150 or use a swing type buffer fitted with an aggressive Strato-Grip type brush to remove the soft layer (cream). Failure to remove the soft layer could result in loss of concrete surface and color. Any stains or contaminants not removed may cause some surface discolorations when the colorant is applied. Make sure the surface is completely dry for applying the colorant.

\* After the floor is cleaned properly and prepared and before application begins, the surface must be checked to insure that water can penetrate the surface. This is done by applying a teaspoon of water on the surface. If it is readily absorbed, this would be the desired effect. If the water beads up on the surface, further grinding, sanding or cleaning may be necessary.

All dirt, foreign contaminants, oil, laitance, curing agents and effervescence must be removed to assure a trouble free bond to the substrate. Make sure the surface is completely dry before applying the sealer. In some applications, Pressure washing and power scrubbing may be necessary. The recommended surface profile is a CSP1. Surface preparation guidelines are written by ICRI and outlined in Guideline NO. 03732 Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays, paints, sealers, and curing compounds. A suitable cleaning solution can be used to clean the surface when required. If acid etching is used to clean or profile the surface, the slab must be thoroughly neutralized after the acid is rinsed from the surface. Follow the acid manufacturers recommendations. After acid cleaning, the surface must then be flushed with clean water and neutralized with a pH neutralizer such as ammonia, baking soda, or T.S.P Repeat rinsing and neutralizing until the concrete is thoroughly neutralized. Acid residue left on the surface will prevent the sealer from penetrating. After all the concrete preparation work is performed, allow the surface to dry for at least 24 hours. Before applying the sealer, test the surface by placing a spoonful of water on the surface. If the water beads up on the surface, additional cleaning and testing must be done. Hydrostatic pressure may affect sealer performance. For applications over decorative colored concrete, surface preparation may have already been performed to apply the colorant. If the surface has already been cleaned and conditioned, then the coating can be applied without additional preparatory work as long as the floor is allowed to dry for 24 hours.

### APPLICATION

#### **MIXING** COLORANT:

MAKE SURE THAT THE PIGMENTS IN THE CONCENTRATE IS ENTIRELY MIXED INTO THE LIQUID BEFORE USING. Mix the concentrate with the proper amount of water. This is best accomplished by adding the concentrate to a pail and by using the same empty container, add 4 containers of the water to the concentrate (4 parts water to 1 part Concentrate). Stir the mixed material well before using.

#### SEALER:

This product ships in a concentrate and must be reduced with water before use. The ½ gallon container of the concentrate (as supplied) when mixed with water will yield one gallon of ready to use Sealer. Simply pour the concentrate contents into container that will hold at least one gallon of liquid and fill the now empty container with water one time and add this amount to the concentrate. The mix ratio of sealer concentrate and water is one to one by volume. After mixing the water and concentrate, stir well before using. Mix with slow speed mixing equipment to avoid introducing air into the material.

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### APPLICATION (CONTINUED)

#### **THICKNESS** COLORANT:

\*For Porous concrete such as broom finishes or stamping, apply the material in two applications. Use a suitable fine mist pumpable sprayer or a mechanical sprayer capable of spraying a fine mist pattern. Spray the first application lightly and allow to dry for one hour or until fully tack free. Then apply the second application the same as the first coat but going in the opposite direction. Spray in circular motions for a more uniform appearance. DO NOT BROOM or BRUSH APPLY. Make sure you properly mask all adjacent surfaces to prevent unwanted staining or coloring. If a darker color is desired, wait another hour and apply a third coat. Clean the sprayer immediately after each use.

\*For Non-porous concrete (Mechanically Finished), apply in two light applications. Spray the first coat using a suitable fine mist pumpable sprayer or a mechanical sprayer capable of spraying a fine mist pattern. Then apply the second application the same as the first coat but going in the opposite direction. Spray in circular motions for a more uniform appearance DO NOT BROOM or BRUSH APPLY. Make sure you properly mask all adjacent surfaces to prevent unwanted staining or coloring. If a darker color is desired, wait another hour and apply a third coat. Clean the sprayer immediately after each use.

NOTE: ST 7141 COLORANT will not hide cracks, blemishes, stains, or other surface irregularities. The color produced will vary from Substrate to substrate and is dependent on many intangibles such as water/cement ratio, weather, application method, concrete mix, experience of the installer, number of coats applied as well as the porosity and smoothness of the concrete. It is possible that the concrete surface will not properly accept the water based dye, always test surface prior to any application.

#### SEALER:

APPLY IN THIN COATS after mixing per the above instructions. Always test a small area of surface to verify appearance and suitability. Apply a fine mist of 2-3 light and even coats with a suitable fine mist pumpable sprayer or a mechanical sprayer capable of spraying a fine mist pattern. Multiple light applications are recommended for proper performance. Avoid heavy application of the sealer. Allow each application of the sealer to dry approximately 1 hour prior to next sealer coat application. CAUTION: Do NOT back-roll or back-brush. Allow surface to dry for at least 12 hours for light foot traffic or 24 hours for heavier traffic. Apply with temperatures between 55 and 80°F. Clean sprayer immediately with water after applying.

**RECOAT/TOPCOAT** No topcoat is recommended except multiple coats of this product. For periodic maintenance, an additional coat(s) may be applied as needed after the surface is properly cleaned.

**CLEAN UP** Citrus based cleaners or any suitable detergent and water.

*\*Restrict the use of the floor to light traffic and non-harsh chemicals until the coating is fully cured (see technical data under full cure). It is best to let the floor remain dry for the full cure cycle.*

### LIMITATIONS

**FLOOR CLEANING** 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.

\* Substrate temperature must be 5 degrees F above dew point.

\*This product is not intended for use as a decorative coating or where color stability or visual appearance is of any significant importance. Its sole purpose is as a protective coating.

\*If a topcoat of a different color is to be used, multiple coats will be necessary to prevent bleed-through (discoloration)

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### LIMITATIONS

#### COLORANT

- The surface should be clean and dry before applying.
- Prevent all overspray of Colorant from contacting only the surface to be colored as it may stain anything it comes in contact with by using appropriate paper shields, plastic coverings and tape.
- Always apply a test patch to determine suitability as denser substrates and substrates containing curing compounds or chemical contaminants may not allow the Colorant to penetrate the substrate properly.
- Variations and inconsistent color can be expected as the penetration and tinting strength will vary from surface to surface depending on the age, porosity, smoothness, cleanliness, density and the general condition and composition of the floor. Always apply a test patch to determine color acceptance and suitability.
- The Colorant can wash out over time if a suitable sealer or topical coating is not used. Resealing periodically with a suitable sealer is recommended maintenance.
- Always apply in thin coats, two to three coats recommended.
- New concrete should be cured for 28 days prior to coloring and sealing.
- DO NOT back-roll or back-brush.
- Do not apply on rainy or foggy days. Allow for 24 hours of rain free cure.
- Excess moisture in the concrete can effect topcoat sealer curing properly.
- Product is to be applied with a suitable sprayer only.
- Warning: Keep out of the reach of children and read the MSDS and warranty and limitations to liability information before using.
- Protective sealers will not prevent all stains and some shadowing may occur. Remove spills promptly for best results.

#### SEALER

- Do not use in the concentrated form, always dilute with water as specified.
- Clarity of color or gloss may be affected by high humidity, low temperatures or chemical exposure. Lighting like sodium vapor lights may affect clarity.
- Apply only as a fine spray mist in two to three thin even coats, DO NOT back-roll or back-brush.
- Do not apply on rainy or foggy days or when rain is expected before a clear 24 hour rain free time is expected. Excessive concrete moisture or inclement weather will not allow the sealer to cure properly.
- Substrate temperature must be 5°F above dew point and above 55°F
- All new concrete must be cured for at least 28 days
- The surface must be completely dry before coating.
- When applying the multiple coats required, allow each preceding coat to dry tack free before applying the additional coats.
- Do not use for a slip resistant coating. Too heavy of an application or applications over dense smooth concrete may become slippery, especially when wet or unclean. A sample should be applied to evaluate the slip resistance and suitability for use in the intended conditions such as wet conditions, contaminants, humidity, and other factors known to alter in place floor slip resistance.
- The sealed surface should be inspected periodically for thin application areas or traffic worn areas. Reapplied as needed for proper surface protection. Normal traffic may require reapplications yearly.
- Physical properties listed on this technical data sheet are typical values
- and not specifications.

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