

# Sure-Tough

ST 3344

APPLIED POLYMER SOLUTIONS, LLC

## PRODUCT PROFILE

### GENERIC DESCRIPTION **Sure-Tough ST 3344 - POLYASPARTIC URETHANE SEAMLESS BINDER**

- is a solvent based two component 85% solids polyaspartic aliphatic urethane clear coating. ST 3344 has excellent chemical resistance, hardness, abrasion resistance, UV stability and has an excellent clear Gardner color. However, the outstanding feature of this product is its exceptionally quick tack free time of around 1-2 hours for foot traffic.

**RECOMMENDED USAGE** Recommended for areas where a high build broadcasted floor is desired and installation downtime is very limited. This material can also be applied over a broadcasted or troweled system as a thin to medium build sealer.

**COLORS** Clear, Gray, Beige & Safety Yellow

## CHARACTERISTICS/FINISHES

**SURFACE** Smooth. Non-skid media should be used to provide additional texture.

**PRIMERS** Recommend a suitable epoxy broadcasted base system and/or adhesion testing prior to use

**TOPCOATS/FINISHES** Optional: None required.

## TECHNICAL SPECIFICATIONS

**SOLIDS BY WEIGHT** 85% (mixed)

**THICKNESS** 2-8 mils as a primer, topcoat or sealer

**VOLITALE ORGANICS** <160 grams per liter

**MIX RATIO** 2 part A to 1 part B (pigments come premeasured for appropriate kit size)

**APPLICATION TEMP** 50°F - 90°F (11°C - 32°C) with a relative humidity below 85%

### CURE SCHEDULE

Cure State	70°F (21°C)
Pot Life	15-20 minutes
Light Traffic/Recoat	1-4 hours
Full Cure/Heavy Traffic	24-48 hours

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

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

**PACKAGING** All kits are premeasured, ready for blending and application

Size	Part A	Part B	Coverage (1,604/DFT) x gallons
1.5 gallon kit	1 gallon (2 gal pail)	.5 gallon	Application Dependant
3 gallon kit	2 gallon (2-2 gal pails)	1 gallon pail	Application Dependant
15 gallon Kits	10 gallon (2-5 gal pails)	5 gallon pail	Applicaton Dependant

Published technical data and instructions may be modified at any time without prior notice. Please contact your Applied Polymer Solutions representative with any questions.

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## TECHNICAL SPECIFICATIONS (CONTINUED)

**COMPRESSIVE STRENGTH** 12,000 psi @ ASTM D695**FINISH CHARACTERISTICS** Gloss (>70 at 60 degrees)**TENSILE STRENGTH** 3,900 psi @ ASTM D638**BOND STRENGTH** 425 psi (concrete failure)**GARDNER VARIABLE IMPATOR** 50 in/lbs direct - Passed**ABRASION RESISTANCE** CS-17 wheel with 1000 gm/500 cycles = 20 mg loss (neat)**ULTIMATE ELONGATION** 2.4%**HARDNESS** Shore D = 77**VISCOSITY** 1,000-2,000 cps (mixed)**WEATHERING** Excellent**CHEMICAL RESISTANCE**

<b>Ammonia</b>	<b>D</b>	<b>Sodium Hydroxide 50%</b>	<b>E</b>
<b>Citric Acid</b>	<b>D</b>	<b>Sulfuric Acid 10%</b>	<b>C</b>
<b>Corn Oil</b>	<b>C</b>	<b>HCl (aq) 36%</b>	<b>C</b>
<b>Lactic Acid</b>	<b>D</b>	<b>Nitric Acid 30%</b>	<b>C</b>
<b>Salt Brine</b>	<b>D</b>	<b>Phosphoric Acid 40%</b>	<b>D</b>
<b>Gasoline</b>	<b>D</b>	<b>Sodium Hypochlorite 3-5%</b>	<b>B</b>
<b>Motor Oil</b>	<b>C</b>	<b>MEK</b>	<b>A</b>
<b>Skydrol</b>	<b>C</b>	<b>Mineral Spirits</b>	<b>C</b>

Rating key: A - not recommended, B - 2 hour term splash spill, C - 8 hour term splash spill, D - 72 hour immersion, E - long term immersion. NOTE: extensive chemical resistance information is available through your sales representative.

## SURFACE PREPARATION

**SURFACE** All dirt, oil, dust, foreign contaminants and laitance must be removed to assure a trouble free bond to the substrate.

**MOISTURE** Allow concrete to cure for 28 to 45 days. Verify dryness by testing for moisture with a "plastic film" test; this can be done at room temperature by placing a 4' x 4' plastic sheet on the substrate and taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate is dry enough to start coating. Should moisture be present, perform Moisture Vapor Emission Rate testing using Anhydrous Calcium Chloride (ASTM F1869). Moisture content should not be in excess of 3 lbs. per 1,000 sq. ft. for coatings (5 lbs. for resurfacers) in a 24 hour period.

**MOST SURFACES** Aggressively shot-blast or mechanically prepare the substrate to properly profile the substrate and remove hardeners, curing compounds, sealers, laitance and other contaminants. All edges and around columns or beams should be mechanically scarified. All termination points should not be feather edged, but should be saw cut with the termination ending at the sawcut.

**FILLING & PATCHING** Voids, cavities, nail and bug holes should be filled with a recommended epoxy filler. All large cracks should be V cut and filled with an appropriate semi-rigid epoxy crack filler.

**JOINTS** All expansion joints should be filled with an appropriate joint filler. When overlaying an expansion joint, a single saw cut through the epoxy overlay will prevent random fracturing.

## APPLICATION

**MIXING** This product has a mix ratio of 2 part A to 1 part B. Standard packages are in pre-measured kits and should be mixed as supplied in the kit. After the two parts are combined, mix well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. After mixing, transfer the mixed material to another pail (the transfer pail) and again remix. The material in the transfer pail is now ready to be applied on the primed substrate.

**THICKNESS** 2-4 mils. Apply the mixed coating by a fine nap roller so as to spread out the material in a uniform manner removing all excess material from the surface of the mortar; then backroll (removing all excess material). Depending on the porosity of the mortar overlay and the color selected, it may be necessary to apply more than one coat of material to achieve uniform coverage. When applied properly, the texture of the mortar may still be visible. Maintain temperatures and relative humidity within the recommended ranges during the application and curing process.

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### APPLICATION (CONTINUED)

**RECOAT/TOPCOAT** This material can be applied in multiple broadcast layers to increase build or can also be used as the final topcoat to seal in the aggregate filled base system. If you opt to recoat or topcoat this product, you must first be sure that the coating has tacked off before recoating. Always remember that colder temperatures will require more cure time for the product before recoating or topcoating can commence. Contact your representative for further details.

**CLEAN UP** Citrus based cleaners or solvents such as Denatured Alcohol or Xylene.

*\*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! Some cleaners may affect the color of the floor installed. 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.

- \*Color stability may be affected by environmental conditions such as high humidity or chemical exposure.
- \* Product is not UV color stable and may discolor if exposed to lighting such as sodium vapor lights.
- \* Colors may vary from batch to batch due to variations in the silica filler.
- \* Mortar colors are not from our standard color chart.
- \* Substrate temperature must be 5 degrees F above dew point.
- \* For chemical exposure areas, we recommend a suitable topcoat to reduce porosity and chemical migration.
- \* Test data based on neat resin.
- \*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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