

# Sure-Tough ST 4055

## APPLIED POLYMER SOLUTIONS, LLC

### PRODUCT PROFILE

**GENERIC DESCRIPTION** TEXTURED STIPPLED EPOXY COAT - RST 4055 is a 100% solids epoxy for applications where a low build epoxy is needed to seal and hide epoxy mortar system imperfections while providing a durable textured wear surface. This product has outstanding wear resistance and superb chemical resistance.

**RECOMMENDED USAGE** Recommended for a topcoating/texturing epoxy mortar power troweled systems or hand troweled systems as well as providing texture coats over concrete or other coatings.

**COLORS** STANDARDS: White, off white, light gray, medium gray, tile red, beige, and clear (clear is opaque)  
PREMIUM: Dark gray, charcoal gray, brown, tan, and light blue  
*Special colors are available upon request*

### CHARACTERISTICS/FINISHES

**SURFACE** Stippled or Orange Peel. Non-skid media may be used to provide additional texture.

**PRIMERS** Any Series 3000 coating. Recommend epoxy mortar power trowel overlay system as a starting base.

**TOPCOATS/FINISHES** None required; however, many epoxies and urethanes are compatible. Contact your sales representative for proper topcoat system selections. Multiple coats are required when topcoating over mortar.

### TECHNICAL SPECIFICATIONS

**SOLIDS BY WEIGHT** 100% (mixed)

**THICKNESS** 6-15 mils

**VOLATILE ORGANICS** Zero pounds per gallon

**MIX RATIO** COLORS: Part A: 1 gallon (9.5 lbs) / Part B: .5 gallon (4.3 lbs.) / CLEAR: A=9.3lbs / B=4.6 lbs.  
(volumes & weights approximate)

**APPLICATION TEMP** 55°F - 90°F (12°C - 32°C)

**CURE SCHEDULE**

Cure State	70°F (21°C)
Pot Life	15-25 minutes
Light Traffic/Recoat	6-8 hours
Full Cure/Heavy Traffic	12-24 hours

**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

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

Size	Part A	Part B	Coverage (1,604/DFT) x gallons
3 gallon kit	2 gallon (5 gal pail)	1 gallon	405 - 800 sq. ft.
15 gallon kit	10 gallon (2-5 gal pails)	5 gallon pail	2025 - 4005 sq. ft.
Drum Kits	—	—	—

*\*Liquids only packaging available*

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)

<b>COMPRESSIVE STRENGTH</b>	15,100 psi @ ASTM D695
<b>FLEXURAL STRENGTH</b>	10,600 psi @ ASTM D790
<b>TENSILE STRENGTH</b>	7,800 psi @ ASTM D638
<b>BOND STRENGTH</b>	410 psi (concrete failure)
<b>GARDNER VARIABLE IMPACTOR</b>	50 in/lbs direct - Passed
<b>ABRASION RESISTANCE</b>	CS-17 wheel with 1000 gm/500 cycles = 23 mg loss
<b>ULTIMATE ELONGATION</b>	1.5%
<b>HARDNESS</b>	Shore D = 89
<b>VISCOSITY</b>	800K-1M cps (mixed)
<b>WEATHERING</b>	Good Stability

<b>CHEMICAL RESISTANCE</b>			
<b>Ammonia</b>	D	<b>Sodium Hydroxide 50%</b>	E
<b>Citric Acid</b>	C	<b>Sulfuric Acid 10%</b>	C
<b>Corn Oil</b>	C	<b>HCl (aq) 36%</b>	B
<b>Lactic Acid</b>	C	<b>Nitric Acid 30%</b>	B
<b>Salt Brine</b>	D	<b>Phosphoric Acid 40%</b>	B
<b>Gasoline</b>	C	<b>Sodium Hypochlorite 3-5%</b>	A
<b>Motor Oil</b>	C	<b>MEK</b>	A
<b>Skydrol</b>	B	<b>Mineral Spirits</b>	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 parts A (9.5#/gallon) to 1 part B (4.30#/gallon) by volume for standard colors and 9.3# part A to 4.6# part B for the clear. Standard packages are in pre-measured kits and should be mixed as supplied. We recommend that the kits not be broken down unless suitable weighing equipment is available. However, a direct 2:1 mix proportioning by volume can be employed. After the two parts are combined, mix well with slow speed mixing equipment such as a jiffy mixer until material is thoroughly mixed & streak free. Continue mixing a couple more minutes to insure a homogeneous mixture. Make sure you scrape the bottom and sides of the pail while mixing. This material has a high viscosity-mix well, improper mixing may result in product failure.
- THICKNESS** 6-12 mils. Apply the mixed coating by a flat flexible rubber squeegee so as to spread out the material in a uniform manner removing all excess material from the surface of the mortar; then backroll with a stippler texture roller. This application will provide a texture coat that will help hide mortar application defects while sealing the mortar with a durable wear resistant finish. It is best to roll the material in one direction and remove all excess material during application. 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. Maintain temperatures and relative humidity within the recommended ranges during the application and curing process.

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### APPLICATION (CONTINUED)

**RECOAT/TOPCOAT** Many epoxy coatings and urethanes are compatible for use as a topcoat for this product as well as multiple coats of this product. When you recoat or topcoat this product, make sure the previous coat has tacked off before recoating. Before recoating or topcoating, check the coating to insure no epoxy blushes were developed (a whitish, greasy film or deglossing). If a blush is present, it can be removed by a standard type detergent cleaner.

**CLEAN UP** Citrus based cleaners or solvents such as 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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