Sure-Tough ST 4409

Applied Polymer Solutions, LLC

PRODUCT PROFILE

GENERIC DESCRIPTION **NOVOLAC EPOXY MORTAR GROUT COAT** - two component high solids epoxy system designed for application where a low build epoxy is needed to seal the surface of a previously placed epoxy mortar overlay system while providing a durable textured wear surface. This product has outstanding wear resistance and superb chemical resistance and can be topcoated with other products.

RECOMMENDED USAGE Recommended for a topcoating/sealing epoxy mortar power troweled systems or hand troweled systems. This product is an ideal sealer before additional products are applied or as a stand alone mortar sealer for chemical exposure.

COLORS STANDARDS: Light gray, medium gray, tile red.

CHARACTERISTS/FINISHES

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

PRIMERS Recommend epoxy mortar power trowel overlay system as a starting base and finish coat.

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 96% (mixed)

THICKNESS 6-12 mils

VOLITALE ORGANICS 0.39 pounds per gallon

MIX RATIO COLORS: Part A=1 gallon (9.25lbs) / Part B=.50 gallons (3.9 lbs).(volumes & weights approximate)

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

CURE SCHEDULE

Cure State	70°F (21°C)
Pot Life	30 minutes
Light Traffic/Recoat	5-6 hours
Full Cure/Heavy Traffic	12-24 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
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	—	—	—

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TECHNICAL SPECIFICATIONS (continued)

COMPRESSIVE STRENGTH	9,900 psi @ ASTM D695
FLEXURAL STRENGTH	9,600 psi @ ASTM D790
TENSILE STRENGTH	6,600 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 = 21 mg loss
ULTIMATE ELONGATION	4.5%
HARDNESS	Shore D = 87
VISCOSITY	3000-4000 cps (mixed)
WEATHERING	Good Stability

CHEMICAL RESISTANCE

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

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 (9.25#/gallon) to 1 part B (3.9#/gallon) by volume for standard colors. Standard packages are in pre-measured kits and should be mixed as supplied in the kit. We highly 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 the material is thoroughly mixed and streak free. Continue mixing for another couple of minutes to insure a homogeneous mixture. Make sure you scrape the bottom and sides of the pail while mixing. 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 (removing all excess material) with a fine nap roller. 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 will still be visible. Maintain temperatures and relative humidity within the recommended ranges during the application and curing process.

APPLICATION (CONTINUED)

RECOAT/TOPCOAT No recoating or topcoating is necessary. However, many epoxy coatings and urethanes are compatible for use as a topcoat as well as multiple coats of this product may be applied. Before recoating, first be sure that the coating has tacked off. All previous coats should be deglossed to insure a trouble free bond prior to application of recoats or topcoats. Always remember that colder temperatures will require more cure time for the product before recoating or topcoating can commence. 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 must be removed prior to topcoating or recoating. For topcoating with the same product, merely topcoat. If topcoating with other colored topcoats, multiple coats will be required to prevent bleed-through (shading). Contact your representative for further details.

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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