

# Sure-Tough ST 4805V

## APPLIED POLYMER SOLUTIONS, LLC

### PRODUCT PROFILE

**GENERIC DESCRIPTION** **VERTICAL EPOXY BLOCK FILLER** - is a two component 100% solids epoxy colored coating designed for applications to vertical surfaces at a high build while resisting sags or slump.

**RECOMMENDED USAGE** Recommended for cement or concrete block applications up to 15 mils thick without runs at 70F. Good resistance from sags or runs from 10-20 mils at 70F.

**COLORS** White, off white, light gray, medium gray and beige

### CHARACTERISTICS/FINISHES

**SURFACE** Smooth based on substrate, block texture may reflect through.

**PRIMERS** Recommend ST 3105V

**TOPCOATS/FINISHES** None normally needed (for increased chemical resistance and increased UV stability use an aliphatic urethane topcoat) Contact your sales representative for proper topcoat system selections.

### TECHNICAL SPECIFICATIONS

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

**THICKNESS** 10-20 mils

**VOLATILE ORGANICS** Zero pounds per gallon

**MIX RATIO** Part A: 8.9 lbs / Part B: 1.6 lbs. (volumes & weights approximate)

**APPLICATION TEMP** 60°F - 90°F (15°C - 32°C)

#### CURE SCHEDULE

Cure State	70°F (21°C)
Pot Life	45-90 minutes
Light Traffic/Recoat	10 hours
Full Cure/Heavy Traffic	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
1 gallon kit	.89 gallon	1 quart (not full)	80 - 160 sq. ft.
Additional sizes possible			

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>	10,600 psi @ ASTM D695
<b>FLEXURAL STRENGTH</b>	7,300 psi @ ASTM D790
<b>TENSILE STRENGTH</b>	7,300 psi @ ASTM D638
<b>BOND STRENGTH</b>	450 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 = 38 mg loss
<b>ULTIMATE ELONGATION</b>	3.2%
<b>HARDNESS</b>	Shore D = 58
<b>VISCOSITY</b>	3,000-4,000 cps (mixed)
<b>WEATHERING</b>	Good Stability

<b>CHEMICAL RESISTANCE</b>			
<b>Ammonia</b>	C	<b>Sodium Hydroxide 50%</b>	C
<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>	A	<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 8.9# part A to 1.6# part B. 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. 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. Improper mixing may result in product failure.
- THICKNESS** 10-20 mils. The mixed material can be applied by brush, roller, or spray. Maintain temperatures and relative humidity within the recommended ranges during the application and curing process. Apply the material between the recommended thicknesses to avoid sags and runs. Maintain temperatures and relative humidity within the recommended ranges during the application and curing process.

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### APPLICATION (CONTINUED)

**RECOAT/TOPCOAT** If you opt to recoat this product, you must first be sure that the coating has tacked off before recoating. However, all previous coats should be deglossed to insure a trouble free bond prior to application of re-coats. Always remember that colder temperatures will require more cure time for the product before recoating can commence. Before recoating, 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 recoating. Any standard type detergent cleaner can be used to remove the blush. If you plan to topcoat this product with another epoxy or urethane, always check compatibility and adhesion characteristics prior to topcoating. Multiple coats of this product are compatible. 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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