



Bulletproof STS

SELF-LEVELING CEMENTITIOUS POLYURETHANE FOR FLOORING
1/8" - 1/4"

BEYOND FLOORS...

PRODUCT DESCRIPTION

Bulletproof STS is a self-leveling three component cementitious polyurethane system with a broadcast aggregate. It is a pigmented, trowel or gauge rake applied floor system. **Bulletproof STS** is designed to withstand aggressive chemical and thermal attack while providing abrasion resistance. An optional, integral cove base (**Bulletproof V**) is available. This system is typically applied at 3 to 6 mm (1/8 to 1/4 in.) thickness. For a complete system and maximum protection over the years, the application of a topcoat **Bulletproof TC** or **Bulletproof XTC** is recommended.

BENEFITS

- Odorless, Non-toxic, Non-tainting
- Pre-measured unit for easy handling and mixing
- Easy application
- No priming required
- Meets Canadian Food Inspection Agency standards
- Superior Adhesion
- Superior Chemical Resistance
- Coefficient of thermal expansion
- Easy Maintenance
- High abrasion resistance
- Excellent performance under thermally induced stresses such as steam cleaning
- No ventilation required
- Thermal Shock Resistant
- Self-extinguishing
- Resistant to fungi and to mold growth
- Can be applied on to 7-10 days old concrete.

COLORS

Bulletproof STS is available in eight (8) standard colors :
Light Gray, Steel Gray, Charcoal, Sky Blue, Deep Blue, Tile Red, Green and Sandalwood

TYPICAL USES

Bulletproof STS is designed to protect concrete, polymer reinforce screeds, mild steel and water resistant plywood from chemical attack, corrosion, impact and thermal shock. It is also unaffected by freeze/thaw cycles. Typical areas of applications:

- Aesthetic Considerations
- Wet Areas
- Commercial kitchens and restaurants
- Meat/Poultry and Dairy Processing
- Pharmaceutical Plants
- Processing Areas

TECHNICAL INFORMATION

Colors	8 standard colors
Cure Time @ 70°F	
Foot traffic	6-8 hours
Recoat	8-10 hours
Light wheel traffic	8-10 hours
Full service	12-16 hours
Mix Ratio (by volume)	3 component kit Part 1 (resin) Part 2 (hardener) Part 3 (aggregate)
Coverage	A unit will yield 36-38 sq. feet at 1/4" thickness
Pot Life @ 77°F	15 minutes
Service temperature	-120° F to 220° F (live steam) Intermittently 260 °F
Toxicity	Non-toxic Odorless No ventilation required

PHYSICAL PROPERTY	TEST METHOD	RESULT
Adhesion to concrete		> 400 psi, concrete fails before loss of bond
Abrasion Resistance CS17 Wheel 1000 GM load 1000 cycles	ASTM C-4060	35 mg loss
Coefficient of Friction Standard Slip Resistant	ASTM D-2047	0.9
Compressive Strength	ASTM C-579	7 100 psi
Flexural Strength	ASTM D-790	2 500 psi
Hardness	Shore D	85-90
Tensile Strength	ASTM D-638	1 050 psi

- Pot life is shorter at higher temperature. Do not use below **41°F** or above **86°F**.
- Before using any **Bulletproof** product, be sure the Safety Data Sheet (SDS) is read and understood.

BULLETPROOF RESINS

11720 Main Street, Fredericksburg VA, 22408
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1/8" - 1/4"

TDSSTSEN.V02

SURFACE PREPARATION

Surface preparation is required. Substrate must be profiled, dry, clean, oil free, and sound. Use **Bulletproof** Degreaser to removed all oily contaminants (oils, greases and others). Remove any dust, laitance, dirt, curing agent impregnations, wax, foreign matter, coatings and others from the surface by an appropriate mechanical to achieve a profile equivalent to ICRI CSP3-6 with Blastrac and/or scarifier and/or grinder with dust free collector. Need proper bonding to the substrate. Call the Technical Department for preparation recommendation.

PRIMING

No primer is required.

MIXING

Premix the resin (part 1) to unify the color, then add the hardener (part 2), both should be added to a forced circulation pail mixer and pre-blended for approximately 30 seconds. Gradually add aggregate (part 3) until homogenous mix is attained (approximately 2 minutes). Mix full unit.

APPLICATION

Bulletproof STS is applied using a gauge rake to required thickness at 1/8"-3/16"-1/4" inch. Back roll with spiked roller. Always pull roller towards you. **Bulletproof** STS requires quartz aggregates to be full broadcast on the wet surface. Allow the system to cure, then remove any excess of quartz aggregate with broom and vacuum. To be applied by licensed applicators. **Bulletproof** Screed Rake 3/4" and 1/8" sold separately.

CLEANING

This product is considered to be a low maintenance flooring solution; however, certain textures and service environments do require certain procedures. Please refer to the "Maintenance Recommendation".

STORAGE CONDITIONS

Bulletproof STS must be stored in a dry cool place between 15°C and 21°C. Exposure of the aggregate (Part 3) to moisture or water will make the systems unreliable. Do not allow resins to freeze. The shelf life of this product is 12 months for part 1 (resin) and part 2 (hardener) and 6 months for part 3 (aggregate) from ship date in the original unopened container. Exposure of the hardener to water will lead to pressure build-up from carbon dioxide generation. Do not reseal containers contaminated with moisture. Do not store near open flame.

CHEMICAL RESISTANCE

This product is resistant to many common chemicals. Best results are obtained when top coated with **Bulletproof** TC or **Bulletproof** XTC. Please call the Technical Department for actual resistance to specific chemical/agents.

MOISTURE CONCERNS

Moisture vapor transmission in the slab should be measured prior to application of polymeric systems to ensure a long lasting, durable installation.

LIMITATIONS

This product is best suited for application in temperatures between **41° F** and **86° F**. Moisture content of substrate should not exceed 10%. Substrate must be clean, sound and dry. Protect substrate during application from condensation or any overhead leaks. If you have any questions, please contact the Technical Department.

CAUTION

Workers should wear protective clothing consisting of splash-proof goggles, impermeable gloves and, where exposure limits are exceeded, organic vapor respirators. Follow the Safety Data Sheet (SDS) for proper personal protective equipment to use when handling this product. Use only as directed.

KEEP OUT OF REACH OF CHILDREN.

IMPORTANT NOTICE

All statements, recommendations and technical information contained in this document are based on tests and information, which Bulletproof Resins believes to be accurate as of this date. The buyer should test this product before use. Bulletproof Resins assumes no obligation or liability for results obtained from the use of this product. The product and information herein are furnished at the buyers request and risk. Bulletproof Resins will not be liable for any direct, indirect, consequential, economic or any other damage whatsoever except to replace the product and or refund the purchase price to the purchaser.

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