



## DUDICK, INC.

Corporate Offices  
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## STERI-FLEX

**FLEXIBILIZED TROWEL APPLIED,  
GLASS REINFORCED,  
EPOXY LINING,  
90 MILS (2.1 mm)**

### FEATURES

Bridges Surface Cracks in Concrete – up to 100 mils of movement  
Flexible System  
Anti-Microbial Agents are available as an option

### RECOMMENDED APPLICATIONS

Research Facilities  
Laboratories

### CHEMICAL RESISTANCE

Dilute Inorganic Acids  
Mineral Oils  
Ammonium Hydroxide  
Sodium Hydroxide  
Brine Solutions

**COLORS:** Color Chart available upon request.

### TEMPERATURE LIMITS

Immersion up to 130°F  
Splash & Spill up to 180°F

### PHYSICAL PROPERTIES

Compressive Strength ASTM C-579	6,000 PSI
Tensile Strength ASTM C-307	4,500-5,000 PSI
Tensile Elongation ASTM C-307	12-15%
Shore D Hardness ASTM D-2240	70-75
Tensile Bond Strength ASTM D-7234	Cohesive failure of concrete

### SPECIFICATIONS

**Steri-Flex** shall be a flexible, crack-bridging epoxy lining consisting of a 1/16” trowel applied basecoat, one layer of saturated fiberglass mat reinforcement, 15-30 mils of chemical resistant epoxy topcoat as manufactured by Dudick, Inc. and applied in accordance with the manufacturer’s recommended practices.

### THE STERI-FLEX SYSTEM

**Steri-Flex uses** a moisture tolerant primer and 80-90 mils of fiberglass reinforced, silica filled epoxy to protect steel and concrete substrates. The added flexibility adds strength to bridge surface cracks and increases resistance to thermal shock.

**Primers** are designed to tolerate residual moisture within the concrete and deeply penetrate the surface to provide the “wetting out” required for good bonding.

**Basecoat: Steri-Flex** uses flexibilized epoxy resin and silica fillers to reduce the coefficient of expansion and provide a thixotropic base on which to embed the reinforcement.

**Reinforcement:** Chopped strand fiberglass mat is used to help bridge small surface cracks and provide additional strength in tension. It is applied to the wet basecoat and becomes an integral part of it, acting much the same as a reinforcing bar does in concrete.

**Saturant:** Flexibilized epoxy resin is used to wet out and embed the fiberglass reinforcement thus providing a mechanical and chemical bond to the basecoat.

**Topcoat: Steri-Seal HB** is a highly chemical resistant high build coating specifically designed for high containment pathogen research facilities. Refer to Steri-Seal HB data sheet for further information.

**ESTIMATING QUANTITIES AND ORDER BILL OF MATERIAL**

SQUARE FEET PER GALLON	
	CONCRETE    STEEL
PRIMER	See specified Primer Data Sheet
Steri-Flex	
Basecoat & Saturant	25 ft. <sup>2</sup>
G-1 Filler	.5 lb./ ft. <sup>2</sup>
Reinforcement	Area + 10%
Topcoat Steri-Seal HB	80-100 ft. <sup>2</sup> @ 15-20 mils
S-10 Solvent	500 ft. <sup>2</sup>

\*\*Quantities shown are for estimating purposes only. Actual field usage may vary.

**APPLICATION INSTRUCTIONS**

**STERI-FLEX MIX RATIOS BY VOLUME**

**Basecoat and Saturant**

Component A	1 gallon
Component B	1 gallon

**Topcoat**

Component A	128 fl.oz.
Component B	48 fl.oz.

**SURFACE PREPARATION**

**Metal:** Abrasive blast to a white metal finish according to SSPS SP5 or NACE #1 and a 3.0 mil minimum profile.

**Concrete:** Concrete must be prepared mechanically to remove surface laitance. Oils, grease or other contaminant must be removed prior to surface preparation. Concrete must be free of curing compounds and form release agents. Surface texture should be similar to 40-60-grit sandpaper or the visual standard, CSP-5 from the International Concrete Repair Institute **with exposed pea gravel**. The prepared surface should have a nominal tensile strength of 250 PSI per ASTM D-4541.

All concrete substrates must be checked for moisture prior to product application using the Plastic Sheet Test, ASTM D-4263.

Additional surface preparation will be required if a 40-60 grit texture **with exposed pea gravel** is not achieved and the surface laitance not completely removed after a single application of acid or with the first mechanical preparation procedure.

Abrasive blasting removes laitance, exposing honeycombs or voids beneath the surface which must be filled with **Scratch Coat 300**. (Refer to separate product bulletin.)

**APPLICATION SPECIFICATIONS**

Substrate temperature of concrete must be between 50°F and 110°F.

Relative humidity must not exceed 90%.

Substrate temperature must be 5°F above the Dew Point.

**PRIMING**

The following Primers are compatible with **Steri-Flex: Primer 67, Primer 67LV, Primer 67DPLV, Primer 67DTO & Primer 60.**

**Metal:** Mix the pre-measured units of **Component A with Component B**. Prime all metal surfaces to be coated with **Primer 67** at 3-4 mils, WFT.

**Concrete:** Concrete must always be primed to aid in the “wetting out” required for good bonding. Mix **Primer Component A with Component B** and apply with a brush, roller or spray. We recommend the basecoat be applied over tacky primer. Do not allow the primer to puddle. If application is not expected over tacky primer a light sand broadcast will provide better toweling properties of the basecoat.

**Important** - With all epoxies after priming and before each additional coat, examine the surface for



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amine blush (oily film). If present, remove by washing with warm water and detergent.

Pot life of the mixed Primer will depend on the temperature. To prevent material waste, do not mix more than can be used according to the corresponding tables:

### Steri-Flex Basecoat

TEMPERATURE	POT LIFE
50°F	90 min.
75°F	60 min.
90°F	30 min.

Do not attempt to store mixed material. Residual material should be properly disposed of at the end of each work period.

### BASECOAT

Add the correct amount of **Component B** to **Component A** and mix thoroughly for 1-2 minutes. Gradually add **G-1 Filler** to achieve a mortar like consistency. Mix well and apply a 1/16" thick basecoat to a smooth, even finish using a plasterer's trowel.

### REINFORCEMENT AND SATURANT

Before the basecoat begins to cure, press one layer of 1 ounce chopped strand fiberglass mat into the wet basecoat. Lap all edges by 1 inch. Use a stiff, natural bristle brush or roller and press the mat firmly into the basecoat, using a technique similar to hanging wallpaper, to remove all air pockets and wrinkles.

Saturate the fiberglass with the basecoat resin mixture, using a short nap paint roller. Roll vigorously until the mat has lost its white color and turns translucent. Use enough resin to "wet out" the mat, but do not allow the saturant to puddle.

Immediately roll the wet fiberglass with a ribbed roller to remove any trapped air or wrinkles. Allow the basecoat and reinforcement application to cure overnight.

Before applying the topcoat, examine the fiberglass for any air bubbles or blisters. If these are present, they must be cut out and repaired, using the procedure above. All overlapped seams should be sanded flat. The topcoat will emphasize any imperfections in the fiberglass. If excessive blistering of the basecoat reinforcement has occurred, it may have been caused by inadequate rolling with a ribbed roller.

### Steri-Flex Topcoat

TEMPERATURE	POT LIFE
50°F	50-60 min.
75°F	30-40 min.
90°F	20-30 min.

### TOPCOAT

Refer to specified Product Data sheets.

If recoat times are exceeded, consult a Dudick representative. Sanding or abrasive blasting may be required before the next coat. Recoat times are dramatically reduced when the coating is exposed to direct sunlight.

Application of **Steri-Flex** in direct sunlight may lead to blistering, pinholes, or wrinkling due to out gassing of air in the concrete and high substrate temperatures. Double priming, shading, or evening application may be required. Consult a Dudick representative.

## CLEANING

Use **S-10 Cleaning Solvent** to clean tools and equipment.

## SHIPPING

Refer to Material Safety Data Sheets.

## STORAGE

**Warning:** All Dudick products classified by DOT with either white, yellow or red labels must not be mixed or stored together as an explosive reaction can occur.

Store all products in a cool, dry area away from open flames, sparks or other hazards.

When stored in their original, unopened containers at 50°F-75°F, **Primer and Steri-Flex** components will have a 6-month shelf life. Storage in direct sunlight or excessive heat will reduce working time and shelf life.

## SAFETY

**M.S.D.S: Material Safety Data Sheets must always be read before using products. Steri-Flex** systems are intended for application by experienced, professional personnel. Dudick, Inc. can supply supervision to help determine that the surface has been properly prepared, the ingredients correctly mixed, and the materials properly and safely applied.

If **Steri-Flex** materials are to be applied by your own personnel or by a third party contractor, please be sure that they are aware of the following safety precautions:

- Exposure to resins and hardeners through direct skin contact and/or inhalation may cause severe dermatitis reactions in some people. Cleanliness of the skin and clothing is critical and must be of paramount concern.
- Fumes are flammable and heavier than air. Proper ventilation should be maintained to minimize breathing of concentrated fumes.

- Suitable respirators should be used during application.
- Safety glasses, gloves, and suitable protective clothing must be worn at all times during application.
- If contact with hardeners occurs, remove any clothing involved and flush the skin with flowing water. Discard the clothing. Do not attempt to wash and reuse it.
- Liquid can be removed with **S-10 Cleaning Solvent**, MEK, or lacquer thinner.
- Keep open flames and sparks away from the area where materials are being mixed and applied.
- If a rash occurs, remove the individual from the work area and seek a physician's care for dermatitis.
- In case of eye contact, flush with water for at least 15 minutes and consult a physician.
- If swallowed, do not induce vomiting; call a physician immediately.

**NOTE:** Dudick, Inc. ("Dudick") warrants all goods of its manufacture to be as represented in its catalogs and that the manufacture of its products by its employees or sub-contractors shall be performed in a workmanlike manner. Dudick's sole obligation under this warranty shall be to replace any material which its examination shall disclose to be defective. Dudick makes no warranty concerning the suitability of its product for application to any surface, it being understood that the goods have been selected and the application ordered by the Purchaser. DUDICK, INC. MAKES NO WARRANTY, EXPRESS OR IMPLIED, THAT THE GOODS SHALL BE MERCHANTABLE OR THAT THE GOODS ARE FIT FOR ANY PARTICULAR PURPOSE. THE WARRANTY OF REPAIR OR REPLACEMENT SET FORTH HEREIN IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES ARISING BY LAW OR OTHERWISE; AND DUDICK INC. SHALL NOT



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BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOST PROFITS, DOWN TIME, DAMAGES TO PROPERTY OF THE PURCHASER OR OTHER PERSONS, OR DAMAGES FOR WHICH THE PURCHASER MAY BE LIABLE TO OTHER PERSONS, WHETHER OR NOT OCCASIONED BY DUDICK'S NEGLIGENCE. This warranty shall not be extended, altered or varied except by written instrument signed by Dudick and Purchaser.

12/06/17