



**Dudick inc.**

Corporate Offices  
1818 Miller Parkway  
Streetsboro, OH 44241  
330-562-1970  
330-562-7638 FAX  
www.dudick.com

**PROTECTO-FLEX 800 SF**

**TROWEL APPLIED, GLASS  
REINFORCED, FLEXIBLE  
EPOXY LINING WITH A SEEDED  
VINYL-ESTER TOPCOAT  
120-140 mils (3.0-3.5 mm)**

**FEATURES**

Bridges Surface Cracks in Concrete  
Flexible System

**RECOMMENDED APPLICATIONS**

Plating Room Floors                      Dike Areas  
Pickling Room Floors                     Aisleways  
Truck Loading Platforms                Chemical Labs  
Chemical Storage

**CHEMICAL RESISTANCE**

Dilute Inorganic Acids  
Mineral Oils  
Ammonium Hydroxide  
Sodium Hydroxide  
Brine Solutions

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

**TEMPERATURE LIMITS**

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-4541	Cohesive failure of concrete

**SPECIFICATIONS**

**Protecto-Flex 800SF** shall be an epoxy lining consisting of a 1/16” trowel applied basecoat, one layer of saturated fiberglass mat reinforcement, and a filled vinyl ester topcoat as manufactured by Dudick, Inc. and applied in accordance with the manufacturer’s recommended practices.

**THE PROTECTO-FLEX 800SF SYSTEM**

**Protecto-Flex 800SF** uses a moisture tolerant primer and 60-70mils of fiberglass reinforced, silica filled epoxy basecoat and 60-70 mils of a seeded vinyl ester topcoat to protect concrete substrates. The added flexibility adds strength to bridge small surface cracks and increase resistance to thermal shock.

**Primer 67** is designed to tolerate residual moisture within the concrete and deeply penetrate the surface to provide the “wetting out” required for good bonding.

**Primer 67C** is designed for applications on concrete where spark testing is required or specified.

**Basecoat: Protecto-Flex 800SF** 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: Protecto-Flex 800SF** basecoat liquid is used to wet out and embed the fiberglass reinforcement thus providing a mechanical and chemical bond to the basecoat.

**Topcoat:**

**Protecto-Flex 800SF** topcoat is a semi-self leveling vinyl ester with a sand or aluminum oxide broadcast.

**Broadcast:** Sand or aluminum oxide is used for strength and surface texture; aluminum oxide provides additional chemical and abrasion resistance. Either material is broadcasted to complete saturation and the excess removed by sweeping.

**Optional Protecto-Flex 800SF Sealer:** For increased resistance to chemicals and moisture, a sealer should be applied. An optional second coat can be used to reduce surface texture.

**ESTIMATING QUANTITIES AND ORDER BILL OF MATERIAL**

APPROXIMATE SQUARE FEET PER GALLON		
CONCRETE		
PRIMER 67	150-200 ft. <sup>2</sup>	
PRIMER 67C	100-150 ft. <sup>2</sup>	
Protecto-Flex 800 SF Basecoat		
Basecoat & Saturant	25 ft. <sup>2</sup>	
G-1 Filler	.5 lb./ ft. <sup>2</sup>	
Reinforcement	Area + 10%	
Protecto-Flex 800SF Topcoat		
Resin Basecoat	45-55 ft. <sup>2</sup>	1/16"
Aluminum Oxide	1 - 1¼ lbs./sq.ft.	
Sand	3/4 lb./ ft. <sup>2</sup>	
Protecto-Flex 800SF Sealer	180-240 ft. <sup>2</sup>	6-8 mils WFT
S-10	500 ft. <sup>2</sup>	Clean-up

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

**During manufacturing, some air entrapment occurs in the more viscous lining systems. During storage and transportation, settling can occur when entrapped air escapes this mix indicating less than 100% volumetric fill. All products are priced and sold by weight and not necessarily by volume**

**APPLICATION INSTRUCTIONS**

**SURFACE PREPARATION**

**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 with the first mechanical preparation procedure.

Mechanical preparation 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.

**PRIMER 67/67C MIX RATIOS (BY VOLUME)**

Primer 67	Component A	1 gallon
Primer 67	Component B	1 gallon
Primer 67C	Component A	1 gallon
Primer 67C	Component B	29 fl. oz.

**Important: Primer 67C Component A** must be mechanically mixed for 1-2 minutes prior to adding the correct amount of **Component B**.

**Primer 67C** must be roller applied. Use brush application for small touch-up or repair work only.

**PRIMER 67/67C POT LIFE**

	Primer 67	Primer 67C
Temperature	Pot Life	Pot Life
50°F	90 min.	90 min.
75°F	60 min.	60 min.
90°F	30 min.	30 min.

**PRIMING**



**Dudick inc.**

Corporate Offices  
1818 Miller Parkway  
Streetsboro, OH 44241  
330-562-1970  
330-562-7638 FAX  
www.dudick.com

**PROTECTO-FLEX 800 SF**

**TROWEL APPLIED, GLASS  
REINFORCED, FLEXIBLE  
EPOXY LINING WITH A SEEDED  
VINYL-ESTER TOPCOAT  
120-140 mils (3.0-3.5 mm)**

**Concrete:** Concrete must always be primed to aid in the “wetting out” required for good bonding. Mix **Primer 67 or 67C Component A with Component B** for 2-3 minutes 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 trowelling properties of the basecoat.

**Important** - With all epoxies after priming and before each additional coat, examine the surface for amine blush (oily film). If present, remove by washing with warm water and detergent.

Pot life of the mixed **Protecto-Flex 800SF** will depend on the temperature. To prevent material waste, do not mix more than can be used according to the corresponding tables:

**Protecto-Flex 800 SF 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.

**PROTECTO-FLEX 800SF BASECOAT MIX RATIO  
(BY VOLUME)**

**Basecoat and Saturant**

Component A                      1 gallon  
Component B                      1 gallon

**BASECOAT**

Add the correct amount of **Component B** to **Component A**. Mix thoroughly for 1-2 minutes. Add 18-25 lbs. of **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. **The basecoat must be tack free prior to topcoat application.**

Pot Life of the mixed **Protecto-Flex 800SF** will depend on the temperature. To prevent material waste and avoid damage to equipment, do not mix more materials than can be used according to the following table.

**PROTECTO-FLEX 800SF and  
Optional 800SF Sealer**

Temperature	Pot Life	Cure Time
50°F	50-60 min.	72 hrs.
75°F	30-40 min.	24 hrs.
90°F	20-30 min.	20 hrs.

**TOPCOAT**

Prior to adding the **PH-1 Hardener**, mix **Protecto-Flex 800SF Topcoat** for 1-2 minutes to assure that any pigment or filler which may have settled to the bottom is redispersed until a uniform color is achieved. Add the correct amount of **PH-1 Hardener** to 1 gallon of resin and mix thoroughly for 2-3 minutes.

Apply 25-30 mils of mixed material to the basecoat. A gauge rack is preferred for spreading the material. Immediately after applying the material to the proper thickness, use a porcupine roller to level and deaerate the topping. Broadcast 20-40 mesh sand or aluminum oxide into the wet layer to complete saturation. Once cured, remove the excess with a broom. This will produce a 1/16". If additional thickness is specified, repeat the above steps.

**Hardener Amount/Gallon**

Hardener	Substrate Temp	P-Flex Topcoat 800SF	800SF Sealer
PH-1	50°F-70°F	3-4 oz.	3-4 oz.
PH-1	70°F-90°F	2-3 oz.	2-3 oz.

**PROTECTO-FLEX 800SF SEALER**

Prior to adding the **PH-1 Hardener**, mix the **Protecto-Flex 800SF Sealer** separately for 1-2 minutes to redisperse any pigments or fillers which have settled.

Add the correct amount of **PH-1 Hardener** to the **Sealer** and mix until a uniform color is achieved. Using a short nap roller, apply evenly to a 6-8 mil WFT.

To reduce surface texture, an optional second coat should be applied after the first coat has cured.

**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 67** components and **Protect-Flex 800SF** components have a six-month shelf life. **Primer 67 C** components will have a thirty-day shelf life. Storage in direct sunlight or excessive heat will reduce working time and shelf life.

**Protecto-Flex 800 SF Topcoat and Sealer** have a three month shelf life. Storage in direct sunlight or excessive heat will reduce working time.

**SAFETY**

**M.S.D.S: Material Safety Data Sheets must always be read before using products. Protecto-Flex 800SF** 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 **Protecto-Flex 800SF** 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.



**Dudick inc.**

Corporate Offices  
1818 Miller Parkway  
Streetsboro, OH 44241  
330-562-1970  
330-562-7638 FAX  
www.dudick.com

**PROTECTO-FLEX 800 SF**

**TROWEL APPLIED, GLASS  
REINFORCED, FLEXIBLE  
EPOXY LINING WITH A SEEDED  
VINYL-ESTER TOPCOAT  
120-140 mils (3.0-3.5 mm)**

- 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. **Protecto-Flex 800SF** 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.

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.

3/18/10

**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 BE LIABLE FOR