



Corporate Offices  
 1818 Miller Parkway  
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**PROTECTO-GLASS 1130**

**TROWEL APPLIED, REINFORCED,  
 HIGH PERFORMANCE, MULTI-  
 FUNCTIONAL, 100% SOLIDS,  
 EPOXY LINING 90 MILS (2.3 mm)**

**FEATURES**

Meets all VOC Requirements  
 Low Odor  
 Low Temperature Cure  
 Excellent Solvent Resistance

**RECOMMENDED APPLICATIONS**

Secondary Containment Areas  
 Concrete Dike Areas  
 Concrete Trenches  
 Concrete Waste Sumps  
 Solvent Storage Areas  
 Tank Farms

**CHEMICAL RESISTANCE**

Inorganic Acids	Salts
Alkali Solutions	Oils
Solvents (including Methylene Chloride and Ethylene Dichloride)	

**COLORS:**

This product is only offered in RED. Contact a Dudick representative for other colors.

**TEMPERATURE LIMITS  
 (STEEL)**

Immersion up to 160°F  
 Dry – 200°F Continuous  
 250°F Intermittent

**PHYSICAL PROPERTIES**

Compressive Strength ASTM C-579	6,000-7,000 PSI
Tensile Strength ASTM C-307	4,000-5,000 PSI
Tensile Bond Strength ASTM D-4541	Cohesive Failure of concrete
Coefficient of Expansion ASTM D-696	12-15x 10 <sup>-6</sup> in./in./°F
Shore D Hardness ASTM D-2240	75-80
Flame Spread ASTM D-635	5mm
VOC ASTM D-3960	0
Taber Abrasion ASTM D-4060	58 mg.

**SPECIFICATIONS**

**Protecto-Glass 1130** shall be a multi-functional epoxy lining consisting of a 1/16” silica filled basecoat, a one ounce layer of fiberglass mat reinforcement with saturant, and a flake filled topcoat as manufactured by Dudick, Inc. System thickness shall be 80-90 mils and applied in accordance with the manufacturer’s recommended practices.

**THE PROTECTO-GLASS 1130 SYSTEM**

**Protecto-Glass 1130** uses a moisture tolerant primer, 1/16” silica filled epoxy basecoat, one layer of one ounce fiberglass mat and a flake filled multi-functional epoxy topcoat to protect concrete and steel.

**Primer 67** is designed to prevent abrasive blasted steel from developing rust bloom prior to the application of the **Protecto-Glass 1130**. For maximum performance, all metal surfaces should be primed. Concrete must be primed to aid in the “wetting out” required for good bonding.

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

**Basecoat: Protecto-Glass 1130** contains epoxy resin and silica fillers to reduce the coefficient of expansion and provide a thixotropic base on which to embed the fiberglass mat.

**Reinforcement:** One ounce 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.

**Topcoat: Protecto-Glass 1130** resin, filled with flake fillers, provides an abrasion and chemical resistant barrier. The overlapping leaf arrangement of flakes reduces water vapor permeation and permits chemical exposure at higher temperatures without increasing the thickness of the coating.

**ESTIMATING QUANTITIES AND ORDER BILL OF MATERIAL**

APPROXIMATE SQUARE FEET PER GALLON		
	CONCRETE	STEEL
PRIMER 67	150-200 ft. <sup>2</sup>	275-300 ft. <sup>2</sup>
PRIMER 67C	100-150 ft. <sup>2</sup>	-----
Protecto-Glass 1130		
Basecoat & Saturant	25 ft. <sup>2</sup>	
G-1 Filler	.5 lb./ ft. <sup>2</sup>	
Reinforcement	Area + 10%	
Topcoat	70-90 ft. <sup>2</sup>	
S-10 Solvent	500 ft. <sup>2</sup>	

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

**APPLICATION INSTRUCTIONS**

**SURFACE PREPARATION**

**Metal:** Metal surfaces must be abrasive blasted to an appropriate finish.

Immersion and heavy spillage service: White Metal, SSPC SP 5 or NACE #1, minimum 3.0 mil profile. Heavy non-immersion service (i.e. fumes and spillage): Near white, SSPC SP 10 or NACE #2, minimum 2.0 mil 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 minimum 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 for 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:**

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 67/67 C POT LIFE**

TEMPERATURE	PRIMER 67	PRIMER 67C
50°F	90 min.	110 min.
75°F	60 min.	90 min.
90°F	30 min.	50 min.



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**PRIMING**

**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 67 or 67C Component A** with **Primer 67**

**Component B** for 2-3 minutes and apply with brush, roller or spray to a WFT of 3-4 mils. 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 troweling properties. **Primer 67C should not be seeded.**

Pot life of the mixed **Protecto-Glass 1130** will depend on the temperature. To prevent material waste and avoid damage to equipment, do not mix more material than can be used according to the corresponding tables:

**IMPORTANT! Please note that Basecoat and Topcoat mix ratios and pot life are dramatically different. Be certain to read and understand the corresponding tables prior to mixing any materials.**

**Protecto-Glass 1130 Basecoat Mix Ratio (By Volume)**

Component A                                    1 gallon  
Component B                                    90 fl. oz.

**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**

Press one layer of one ounce chopped strand fiberglass mat into the wet basecoat. Lap all edges by one 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 mat with catalyzed basecoat resin, 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 saturated mat 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 application 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.

**Protecto-Glass 1130 Basecoat Cure Cycles:**

TEMPERATURE	RECOAT TIME		CURE TIME
	MIN.	MAX.	
50°F	24 hrs.	120 hrs.	96 hrs.
75°F	12 hrs.	96 hrs.	48 hrs.
90°F	8 hrs.	72 hrs.	24 hrs.

If these 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 lining is exposed to direct sunlight.

## TOPCOAT

### Protecto-Glass 1130 Topcoat Mix Ratio (By Volume)

Component A	1 gallon
Component B	44 fl. oz.

### SPRAY APPLICATION

For Plural Component Spray Equipment the Volumetric Mix Ratio (A to B) is 2.5/1.0 .

Pre-stir **Component A and Component B** separately to a uniform consistency with a drill and paddle mixer. Spray apply the catalyzed topcoat over the basecoat to a nominal 15-20 mil thickness.

If you notice a streaking effect while spraying, stop immediately. The spray equipment is not mixing the material properly or the mix ratios are incorrect. Check your equipment.

This streaked material will not cure properly and must be removed. Scrape the material off and then solvent wash the area with **MEK** or **S-10 Cleaning Solvent**. Alternately, abrasive blasting may be used to remove the material. In either case, the end result is to have a non sticky surface to recoat.

Plural Component Spray Equipment: Plural Component Airless Spray Equipment-Graco 2.5:1 fixed ratio King or equivalent; 5:1 Monarch feed pumps; 626 mixed manifold; 1/2-32 mixer; #207945 Graco Gun equipped with a Reverse-A-Clean tip and a tip size between .027 and .041. 1/2 ID spray hose on each side with a maximum length of 100 ft.; 3/8" whip hose.

#### Batch Mixing

Protecto-Glass 1130 Topcoat	
Component A	1 gallon
Component B	51 fl. oz.

Temperature	Pot Life	Cure Cycle
50°F	20 min.	96 hrs.
75°F	15 min.	72 hrs.
90°F	10 min.	48 hrs.

**In view of the short pot life of Protecto-Glass 1130 Topcoat, it is recommended that the material be cooled either by refrigeration or icing down to 50°F.**

**This material will cure down to 38°F in 72 hours, and develops a high exotherm when in mass. It is recommended that a pail of water be accessible to put residual mixed material into if not totally used. If cooling is not possible, small batches of mixed material must be used to work within the pot life limitations. Catalyzed material must never be left unattended.**

Add the correct amount of **Component B to Component A** and mix thoroughly until a uniform color is achieved. Apply at 15-20 mils WFT using a brush or roller to a smooth even finish. Brush or roller application may require additional coats to meet the specified dry film thickness.

Application of **Protecto-Glass 1130** in direct sunlight may lead to blistering, pinholes, or wrinkling in the lining due to outgassing of air in the concrete and high substrate temperatures. Double priming, shading, or evening application may be required. Consult a Dudick representative.

### TESTING

**Metal:** Allow the total system to cure. Spark test the lining with a 10,000 Volt AC spark tester. Mark and repair all pinholes using the topcoat material. Retest only the repairs.

**Concrete:** Allow the total system to cure overnight, then visually inspect the topcoat for any pinholes and repair them. The lining can be spark tested at 10,000 volts provided **Primer 67C** was used to prime the concrete.

### 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 may 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-Glass 1130 Component B** will have a six-month shelf life. **Protecto-Glass 1130 Component A** will have a six-week shelf life. The shelf life of **Protecto-Glass 1130**



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**Component A is not predictable after six weeks.** Ideal storage conditions are at 50°F or lower. Keep all containers tightly sealed when not in use. **Primer 67 C** components will have a thirty-day shelf life.

### SAFETY

**M.S.D.S: Material Safety Data Sheets must always be read before using products. Protecto-Glass 1130** 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-Glass 1130** 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. **Protecto-Glass 1130** 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 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.

3/18/10