

SELECTION & SPECIFICATION DATA

Generic Type	Flexibilized epoxy base coat and saturant resin
Description	A flexibilized epoxy resin that, when mixed with silica filler, will reduce the coefficient of expansion and provide a thixotropic base on which to embed fabric reinforcement. The added flexibility provides strength when bridging small surface cracks and increases resistance to thermal shock.
Features	<ul style="list-style-type: none"> • Bridges surface cracks in concrete • Flexible system
Typical Uses	<ul style="list-style-type: none"> • Thickeners Tanks • Clarifiers • Waste Treatment Tanks • Secondary Containment
Color	Clear resin. Once the G-1 Filler is added it will result in an unmatched gray color.
Primer	Primer 67, Primer 67LV, Primer 67DPLV, & Primer 67DTO
Service Temperature	<p>Splash & Spill up to 180°F (82°C)</p> <p>*Depending on topcoat selection. Contact a Dudick representative for full chemical resistance capabilities</p>
Dry Film Thickness	<p>20 - 60 mils (508 - 1524 microns) per coat</p> <p>*1 gallon of mixed resin with 20-30lbs of G-1 Filler will yield approximately 2 gallons of trowelable base coat. This is usually applied at 50-60 mils and will cover approximately 30 sq. ft.</p> <p>*1 mixed gallon of neat resin will saturate approximately 70 sq. ft. of 1oz fiberglass mat when applied at approximately 20 mils.</p> <p>For estimating purposes 25-30sq. ft. per gallon will provide coverage for the combined trowelable basecoat and saturant layers. It is common practice to increase the area to be coated 10% in order to account for waste and fiberglass mat overlaps.</p>
Solid(s) Content	By Volume: 100%
VOC Value(s)	98 g/L
Topcoats	<p>Topcoat selection will depend on exposure</p> <p>Contact a Dudick representative for topcoat recommendation</p>
Application	Mix well and apply a 1/16" (60mils) thick basecoat to a smooth, even finish using a trowel.

SUBSTRATES & SURFACE PREPARATION

Concrete	<p>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 in prepared in accordance with CSP-5 or greater, 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-7234. All concrete substrates must be checked for moisture prior to product application using the Plastic Sheet Test, ASTM D-4263.</p>
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Protecto-Flex BC

PRODUCT DATA SHEET



SUBSTRATES & SURFACE PREPARATION

Metal | Abrasive blast to a white metal finish according to SSPS SP5/NACE No. 1 and a 3.0 mil minimum profile.

PERFORMANCE DATA (TYPICAL VALUES)

Test Method	Results
Compressive Strength ASTM C-579	6,000 PSI (41.4 MPa)
Shore D Hardness ASTM D-2240	70-75
Tensile Bond Strength ASTM D-7234	Cohesive Failure of Concrete
Tensile Elongation ASTM C-307	12-15%
Tensile Strength ASTM C-307	4,500-5,000 PSI (31-34.5 MPa)

MIXING & THINNING

Mixing | Pour equal parts by volume (1:1) of Part B into Part A and mix thoroughly until a uniform color is achieved. Mix in 20-30 lbs. (9-13.6 kg) of G-1 Filler per mixed gallon to achieve a trowelable consistency. The amount of G-1 Filler may vary due to working conditions and applications. Mix thoroughly until a homogenous blend is achieved.

Ratio | 1:1

90 minutes @ 50°F (10°C)
60 minutes @ 75°F (24°C)
30 minutes @ 90°F (32°C)

Pot Life

To prevent material waste, do not mix more than can be used according to the corresponding time frames.
Do not attempt to store mixed material. Residual material should be properly disposed of at the end of each work period.

APPLICATION PROCEDURES

Application | After mixing the Part A, Part B, and G-1 Filler per the mixing instructions, apply approximately 1/16" (~60 mils) thick basecoat to a smooth, even finish using a trowel.
Adding reinforcement and saturant:
Before the basecoat begins to cure, press one layer of 1 ounce chopped strand fiberglass mat into the wet basecoat. Overlap all edges by 1 inch. Use a stiff, natural bristle brush or short nap 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 by mixing Part A and B only, do not add the G-1 filler, to make a neat resin mixture. Using a short nap roller, roll vigorously until the mat has lost its white color and turns translucent, paying special attention to overlaps and corners. Use enough resin to wet out the mat, but do not allow the saturant to puddle. If needed, roll the wet fiberglass with a ribbed roller to remove any trapped air or wrinkles. Allow the basecoat and reinforcement application to dry.
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. Rough overlaps and protruding fiberglass strands must be abraded and smoothed. The topcoat will emphasize any imperfections in the fiberglass. Excessive blistering of the basecoat reinforcement may indicate inadequate rolling or too little saturant. **Prior to the the application of any further coats, the troweled basecoat, 1oz glass mat, and saturant layers must be allowed to dry enough that they can be ground to provide profile for successive coats and remove any high spots or protrusions on the entire surface then it must solvent wiped. Use caution not to grind through the reinforcing layer.**

APPLICATION CONDITIONS

Condition	Surface	Humidity
Minimum	50°F (10°C)	0%
Maximum	110°F (43°C)	90%

Substrate temperature must be 5°F (3°C) above the Dew Point.

CURING SCHEDULE

Surface Temp.	Cure Time	Maximum Recoat Time
50°F (10°C)	96 Hours	120 Hours
75°F (24°C)	48 Hours	72 Hours
90°F (32°C)	24 Hours	48 Hours

If these recoat times are exceeded, consult a Dudick representative. Abrading may be required before the next coat. Recoat times are dramatically reduced when the coating is exposed to direct sunlight. Application in direct sunlight may lead to blistering, pinholes, or wrinkling 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.

CLEANUP & SAFETY

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

Safety

Material Safety Data Sheets must always be read before using products. Protecto-Flex BC 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 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-Flex BC 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.

Protecto-Flex BC

PRODUCT DATA SHEET



PACKAGING, HANDLING & STORAGE

Packaging	1-Gallon Kit Protecto-Flex BC Part A - 0.5 gal (1.89 liters) Protecto-Flex BC Part B - 0.5 gal (1.89 liters)
	5-Gallon Kit Protecto-Flex BC Part A - 5 gal (18.93 liters) Protecto-Flex BC Part B - 5 gal (18.93 liters)
	Filler and Mat(Ordered Separately) G-1 Filler - 50lb bag (22.68 kg) 1oz Chopped Mat (100sf roll) - 50 in (5.2 kg) 1oz Chopped Mat (500sf roll) - 36 in (16.6 kg) 1oz Chopped Mat (1000sf roll) - Approx. 68.5 lbs (31 kg) 1oz Chopped Mat (1800sf roll) - Approx. 118 lbs (53.5 kg)
Shelf Life	12 months at 50°F-75°F (10°C-24°C) When stored in their original, unopened containers. Storage in direct sunlight or excessive heat will reduce working time and shelf life.
Storage	Store all products in a cool, dry area away from open flames, sparks or other hazards.
Shipping Weight (Approximate)	1-gal Kit - Approx. 8.6 lbs (3.9 kg) 5-gal Kit - Approx. 48.5 lbs (22.38 kg) G-1 Filler - Approx. 50 lbs (22.68 kg) 1oz Chopped Mat (100sf roll) - Approx. 11.6 lbs (5.2 kg) 1oz Chopped Mat (500sf roll) - Approx. 36.6 lbs (16.6 kg) 1oz Chopped Mat (1000sf roll) - Approx. 68.5 lbs (31 kg) 1oz Chopped Mat (1800sf roll) - Approx. 118 lbs (53.5 kg)

WARRANTY

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact Carboline Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance, injuries or damages resulting from use. Carbolines sole obligation, if any, is to replace or refund the purchase price of the Carboline product(s) proven to be defective, at Carbolines option. Carboline shall not be liable for any loss or damage. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. All of the trademarks referenced above are the property of Carboline International Corporation unless otherwise indicated.