

SELECTION & SPECIFICATION DATA

Generic Type	100% solids, trowel applied, reinforced, novolac epoxy lining
Description	A high-performance, highly chemical resistant lining for protection of metal and concrete. It is well suited for chemical manufacturing or processing operations. Used as a component of a system with fiberglass reinforcement, the separate elements lose their individual identity and become a single, monolithic lining.
Features	<ul style="list-style-type: none"> • Meets all VOC requirements • Low Odor • Reinforced to bridge small surface cracks • Can be broadcast for anti-skid
Typical Uses	<ul style="list-style-type: none"> • Secondary Containment • Concrete Dike Areas • Trenches • Waste Sumps • Acid Storage Areas
Color	Clear (0000)
Primer	<p>For maximum performance, all metal surfaces should be primed with Dudick Primer 67 series, but primer may not be needed for mild, non-immersion service.</p> <p>Concrete must be primed to aid in the “wetting out” required for good bonding. Use Primer 67 series or other primer recommended by Dudick or Carboline technical service.</p>
Dry Film Thickness	20 - 30 mils (508 - 762 microns) DFT when used as saturant 65 mils (1651 microns) approximate DFT for basecoat
Solids Content	By Volume 100%
Theoretical Coverage Rate	1604 ft ² /gal at 1.0 mils (39.4 m ² /l at 25 microns) 80 ft ² /gal at 20.0 mils (2.0 m ² /l at 500 microns) 25 ft ² /gal at 65.0 mils (0.6 m ² /l at 1625 microns) Allow for loss in mixing and application.
VOC Values	As Supplied : 30 g/L
Dry Temp. Resistance	Continuous: 200°F (93°C) Non-Continuous: 250°F (121°C)
Chemical Resistance	<ul style="list-style-type: none"> • Concentrated Inorganic Acids • Dilute Organic Acids • Alkali Solutions • Solvents • Oils • Salts

Protecto-Glass 160XT

PRODUCT DATA SHEET



SUBSTRATES & SURFACE PREPARATION

Steel | 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.
Atmospheric service: Commercial SSPC SP 6 or NACE #3, 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 pea gravel exposed. Additional surface preparation will be required if 40-60 grit texture with exposed pea gravel is not achieved and the surface laitance not completely removed with the first mechanical preparation procedure. The prepared surface shall have a tensile strength of 250 PSI per ASTM D7234.

All concrete substrates must be checked for moisture prior to product application using the Plastic Sheet Test, ASTM D4263.

PERFORMANCE DATA

All test data was generated under laboratory conditions. Field testing results may vary.

Test Method	Results
Compressive Strength (ASTM C579)	6,000-7,000 PSI (41.4-48.2 MPa)
Flame Spread (ASTM D635)	33 mm
Taber Abrasion* (ASTM D4060)	72 mg
Tensile Bond Strength (ASTM D7234)	Cohesive Failure of Concrete
Tensile Strength (ASTM C307)	4,000-5,000 PSI (27.6-34.5 MPa)

*CS-17 Wheel 1000 cycles, 1000 gram load

MIXING & THINNING

Mixing | **Basecoat:**
Add the correct amount of Part B to Part A and mix thoroughly for 1-2 minutes. Add 18-25 lbs. of G- 1 Filler to achieve a mortar-like consistency. The amount of G-1 Filler may vary due to working conditions and applications. Mix thoroughly until a homogenous blend is achieved.

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As Saturant:
Add the correct amount of Part B to Part A and mix thoroughly for 1-2 minutes. Mix thoroughly until a homogenous blend is achieved.

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

Ratio | Approximately 2:1 (A:B by volume)

Pot Life | 60 Min @ 50°F (10°C)
45 Min @ 75°F (24°C)
30 Min @ 90°F (32°C)

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

APPLICATION PROCEDURES

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 oz glass 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 reinforcement by mixing Part A and B only, do not add the 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 reinforcement with a ribbed roller to remove any trapped air or wrinkles. Allow the basecoat and reinforcement application to dry.

Trowel

Topcoat Application:
 Before applying the topcoat, the troweled basecoat, fiberglass mat, and saturant layers must dry thoroughly to allow for the surface to be ground to provide profile for successive coats and remove any high spots or protrusions. Grinding must draw dust. Use caution not to grind through the reinforcing layer, then solvent wipe the entire surface.
 Examine the reinforcement 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 reinforcement strands must be abraded and smoothed. The topcoat will emphasize any imperfections in the reinforcement. Excessive blistering of the basecoat reinforcement may indicate inadequate rolling or too little saturant. Apply topcoat according to the corresponding product data sheet.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	60°F (16°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	80°F (27°C)	110°F (43°C)	110°F (43°C)	90%

Substrate temperature must be 5°F (3°C) above the dew point.
 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.

CURING SCHEDULE

Surface Temp.	Minimum Recoat Time	Maximum Recoat Time	Final Cure
50°F (10°C)	12 Hours	120 Hours	7 Days
75°F (24°C)	6 Hours	72 Hours	5 Days
90°F (32°C)	4 Hours	48 Hours	90 Hours

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 coating is exposed to direct sunlight.

CLEANUP & SAFETY

Cleanup | Use S-10 Cleaning Solvent, Carboline Thinner 76 or Carboline Thinner 2 to clean tools and equipment.

Protecto-Glass 160XT

PRODUCT DATA SHEET



CLEANUP & SAFETY

Safety	Read and follow all caution statements on this product data sheet and on the SDS. Employ normal safety precautions. Keep container closed when not in use.
Ventilation	Ventilation must be used during and after application until the coating is cured. The ventilation system should be capable of preventing the solvent vapor concentration from reaching the lower explosion limit for the solvents used. User should test and monitor exposure levels to insure all personnel are below guidelines. Use MSHA/NIOSH approved air respirators as needed.
Caution	Fire and explosion hazards: This product contains less than 1% volatile components, however, vapors are heavier than air and can travel long distances, ignite and flash back. Eliminate all Ignitions sources. Keep away from sparks and open flames. All electrical equipment and installations should be made and grounded in accordance with the National Electric Code. In areas where explosion hazards exist, workers should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

PACKAGING, HANDLING & STORAGE

Packaging	1 Gallon Kits: Part A: 0.68 Gallons (in a 1 gal can) Part B: 0.32 Gallons (in a 1 gal can) <hr/> 5 Gallon Kits: Part A: 3.4 Gallons (in a 5 gal pail) Part B: 1.6 Gallons (in a 3.5 gal pail) G-1 Filler is sold separately in a 50 lb. bag.
Shelf Life	12 months at 50°F-75°F (10°C-24°C) When stored in their original, unopened container.
Storage	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. All products should be stored in a cool, dry area, away from open flames, sparks, or other hazards.
Shipping Weight (Approximate)	1 gallon kit: 14.3 lbs 5 gallon kit: 52.1 lbs

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.