

## SELECTION & SPECIFICATION DATA

<b>Generic Type</b>	Reinforced novolac epoxy lining
<b>Description</b>	Protecto-Line 100XT uses several layers of amine cured, filled novolac epoxy resin to build up the protection that metal and concrete need in chemical manufacturing or processing operations. When fully cured, the separate elements lose their individual identity and become a single, monolithic lining.
<b>Features</b>	<ul style="list-style-type: none"> <li>• Low Odor</li> <li>• Low Taber Abrasion</li> <li>• Meets all VOC requirements</li> <li>• Excellent Sulfuric Acid Resistance</li> </ul>
<b>Typical Uses</b>	<ul style="list-style-type: none"> <li>• Concentrated Acid Spills</li> <li>• Concentrated Caustic Spills</li> <li>• Floors, Trenches, Curbs and Pits</li> <li>• Steel and Concrete Tanks</li> <li>• Scrubbers</li> <li>• Ducts</li> </ul>
<b>Color</b>	Clear (0000)
<b>Primer</b>	<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 <b>must</b> 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>
<b>Application Thickness</b>	<p>~60 mils (1524 microns)</p> <p><b>For estimating purposes approximately 16sq. ft. per gallon of resin and 1 lbs per sq. ft. of G-1 Filler will provide coverage for the combined trowelable basecoat and saturant layers.</b> It is common practice to increase the area to be coated 10% in order to account for waste and fiberglass mat overlaps.</p>
<b>Solids Content</b>	By Volume 100%
<b>VOC Values</b>	<b>As Supplied</b> : 20 g/L
<b>Dry Temp. Resistance</b>	<p>Continuous: 200°F (93°C)          Non-Continuous: 250°F (121°C)</p> <p>Immersion up to 180°F</p>
<b>Chemical Resistance</b>	<ul style="list-style-type: none"> <li>• Concentrated Inorganic Acids</li> <li>• Dilute Organic Acids</li> <li>• Alkali Solutions</li> <li>• Solvents</li> <li>• Oils</li> <li>• Salts</li> </ul>

# Protecto-Line 100XT

## 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
Coefficient of Expansion ASTM D-696	12-15x 10 <sup>-6</sup> , in./in./°F
Compressive Strength ASTM C-579	14,000PSI
Flame Spread ASTM D-635	10mm
Taber Abrasion, CS-17 Wheel 1000 cycles, 1000 gram load ASTM D-4060	20 mg. (AR)
Tensile Strength ASTM C-307	2,700 PSI
WVT ASTM E-96	0.0017 perm in.

### MIXING & THINNING

**Mixing** | 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 per gallon 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.

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** | 70 Min @ 50°F  
45 Min @ 75°F  
25 Min @ 90°F

### APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

<b>Brush &amp; Roller (General)</b>	Immediately after the trowel application and before the topcoat has cured, dampen a natural bristle brush (thick bristle 4" wide) or roller with S-30 Smoothing Liquid. Lightly brush or roll the wet topcoat to remove trowel marks and pinholes. Never allow S-30 Smoothing Liquid to puddle on the topcoat.
	Primer 67C must be roller applied. Use brush application for small touch-up or repair work only.

### APPLICATION CONDITIONS

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

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

### CURING SCHEDULE

Surface Temp.	Chemical Service
50°F (10°C)	96 Hours
75°F (24°C)	48 Hours
90°F (32°C)	24 Hours

### CLEANUP & SAFETY

<b>Cleanup</b>	Use S-10 Cleaning Solvent to clean tools and equipment.
<b>Safety</b>	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.
<b>Ventilation</b>	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.
<b>Caution</b>	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.

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## PACKAGING, HANDLING & STORAGE

Packaging	<b>1 Gallon Kits:</b> Part A: 0.68 Gallons (in a 1 gallon can) Part B: 0.32 Gallons (in a 1 gallon can)
	<b>5 Gallon Kits:</b> Part A: 3.4 Gallons (in a 5 gal pail) Part B: 1.6 Gallons (in a 3.5 gal pail)
	<b>Filler and Roving(Ordered Separately)</b> G-1 Filler - 50lb bag (22.68 kg) 9.8oz Woven Roving (2000sf roll) - 146 lbs (66 kg)
Shelf Life	Part A: 12 months Part B: 12 months
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 kits: 14.3 lbs 5 gallon kits: 52 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 to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. Carboline warrants our products to be free of manufacturing defects in accord with applicable Carboline quality control procedures. THIS WARRANTY IS NOT VALID WHEN THE PRODUCT IS NOT: (1) APPLIED IN ACCORDANCE WITH CARBOLINE'S SPECIFICATIONS, AND/OR (2) PROPERLY STORED, CURED, AND USED UNDER NORMAL OPERATING CONDITIONS. Carboline assumes no responsibility for coverage, performance, injuries, or damages resulting from use of the product. If this product is found not to perform as specified upon inspection by a Carboline representative during the warranty period, Carboline's sole obligation, if any, is to replace the Carboline product(s) proven to be defective or refund the purchase price thereof, at Carboline's sole option. Carboline shall not be liable for any other losses or damages. This warranty excludes (1) labor and costs of labor for the application or removal of any product, and (2) any incidental or consequential damages, whether based on breach of express or implied warranty, negligence, strict liability or any other legal theory. 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. The whole text of this Product Data Sheet, as well as the documents derived from it, have been written in English, and for legal purposes the English version shall prevail.