Protecto-Line 100

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	100% solids, trowel applied, reinforced epoxy lining
Description	Protecto-Line 100 uses several layers of amine cured, reinforced 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.
Features	• Meets all VOC Requirements • Low Odor • Conductive Version Available
Typical Uses	• Tank Linings • Floors • Trenches • Piers • Process Areas • Containment Areas • Clean Rooms
Color	Unmatched Grey
Primer	For maximum performance, all metal surfaces should be primed with Dudick Primer 67, but primer may not be needed for mild, non-immersion service. 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.
Application Thickness	~60 mils (1524 microns) **For estimating purposes approximately 18sq. 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.** It is common practice to increase the area to be coated 10% in order to account for waste and fiberglass mat overlaps.
Solids Content	By Volume 100%
VOC Values	**As Supplied** : 0 g/L
Dry Temp. Resistance	Continuous: 250°F (121°C) Non-Continuous: 300°F (149°C)
Chemical Resistance	• Dilute Inorganic Acids • Oils • Alkali Solutions • Salts • Solvents

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.

SUBSTRATES & SURFACE PREPARATION

Concrete

Concrete must be mechanically prepared 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 D7243. All concrete substrates must be checked for moisture prior to product application using the Plastic Sheet Test, ASTM D4263.

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 data sheet)

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 D696)	12-15x10^{-6}in./in./ºF
Compressive Strength (ASTM C579)	14,000 PSI (96.5 MPa)
Flame Spread (ASTM D635)	10 mm
Tensile Strength ASTM (C307)	2,700 PSI (18.6 MPa)
WVT (ASTM E96)	0.0017 perm. in.

MIXING & THINNING

Mixing

Basecoat & Topcoat:
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.

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

7.3:1 (A:B by volume)

Pot Life

60 minutes @ 50ºF (10ºC)
40 minutes @ 75ºF (24ºC)
25 minutes @ 90ºF (32ºC)

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.

Trowel	Mix well and apply a 1/16” thick topcoat, using a plasterer’s trowel. Apply to an even finish.

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 5ºF (3ºC) above the dew point.

CURING SCHEDULE

Surface Temp.	Final Cure
50°F (10°C)	7 Days
75°F (24°C)	5 Days
90°F (32°C)	90 Hours

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, Carboline Thinner 76 or Carboline Thinner 2 to clean tools and equipment.
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: 0.88 Gallons (in a 1 gal can) Part B: 0.12 Gallons (in a pint can) **5 Gallon Kits:** Part A: 4.4 Gallons (in a 5 gal pail) Part B: 0.6 Gallons (in a 3.5 gal pail) **Filler and Roving(Ordered Separately)** G-1 Filler - 50lb bag (22.68 kg) 9.8oz Woven Roving (2000sf roll) - 146 lbs (66 kg)
Shelf Life	12 months @ 50°F-75°F (10°C-24°C) When properly stored in their original, unopened containers. Storage in direct sunlight orexcessive heat will reduce working time and shelf life.
Storage	Warning: All Dudick products classified with DOT labels as 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: 12.4 lbs 5 gallon kits: 51 lbs

WARRANTY

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