Protecto-Line 900

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Trowel applied, reinforced novolac vinyl ester lining
Description	Protecto-Line 900 uses several layers of thermosetting, filled novolac vinyl ester 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	• Low Permeability • Conductive Version Available
Typical Uses	• Plating Room Floors • Acid Neutralization • Food Processing • Plating Room Floors • Concentrated Acid Spills • Paint Rooms
Primer	Primer 27 or Primer 27C Primer 27 is designed to prevent abrasive blasted metal form developing rust bloom prior to the application of the Protecto-Line 900. Primer 27C is designed for applications on concrete where spark testing is required or specified.
Dry Film Thickness	1/8” thick
Solids Content	By Volume 100%
Theoretical Coverage Rate	1604 ft²/gal at 1.0 mils (39.4 m²/l at 25 microns) Allow for loss in mixing and application.
Dry Temp. Resistance	Continuous: 200°F (93°C) Non-Continuous: 250°F (121°C)
Chemical Resistance	• Inorganic Acids • Organic Acids • Dilute Alkali Solutions • Oils • Fluorides (905/905AR) • Salts
Temperature Resistance (Immersion)	Immersion up to 180°F (82°C)

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 D4541. 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.

Metal

Abrasive blast to a white metal finish according to SSPC SP5 or NACE # 1 and a 3.0 mil minimum profile.

PERFORMANCE DATA

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

Test Method	Results
Coefficient of Expansion (ASTM D696)	12-15 x 10^{-6} in./in./ºF
Compressive Strength (ASTM C579)	12,500 PSI (86.2 MPa)
Electrical Properties (ASTM F150, NFPA #99)	0-200,000 Ohms
Flame Spread (ASTM D635)	<5 mm
Taber Abrasion* (ASTM D4060)	40 mg (G-1)
Tensile Strength (ASTM C307)	2,400 PSI (16.5 MPa)
WVT ASTM E-96	0.0017 perm. in.

*CS-17 wheel,1000 cycles, 1000 gram load

MIXING & THINNING

Mixing

Basecoat:
Add the correct amount of PH- 1 Hardener to the resin. Mix thoroughly for 2-3 minutes. Add 18-25 lbs. of G-1 Filler/gal. Mix well and apply a 1/16” thick basecoat, using a plasterer’s trowel. Apply to an even finish.

Topcoat:
Before applying the topcoat, examine the overall application and grind any sharp glass protrusions and fill any voids with catalyzed saturant resin.
Add the correct amount of PH- 1 Hardener to the resin. Mix thoroughly for 2-3 minutes. Add 18-25 lbs. G-1 Filler/gal.
Mix well and apply a 1/16” thick topcoat, using a plasterer’s trowel. Apply to an even finish.

Ratio

Hardener:
PH-1 @ 60°F-70°F (16°C-21°C): 3-4 oz.
PH-1 @ 70°F-90°F (21°C-32°C): 2-3 oz.

MIXING & THINNING

Pot Life

60 minutes @ 50°F (10°C)
40 minutes @ 75°F (21°C)
25 minutes @ 90°F (32°C)

Pot life of the mixed Protecto-Line 900 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 above.
Do not attempt to store mixed material. Residual material should be properly disposed of at the end of each work period.

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.

Brush & Roller (General)

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.

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 (3°C) above the dew point.

CLEANUP & SAFETY

Cleanup

Use S-10 Cleaning Solvent 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	**<u>1 Gallon Kits:</u>** Part A: 0.97 Gallons (in a 3.5 gal steel pail) Part B: 0.03 Gallons (in a 1 gal metal box) **<u>5 Gallon Kits:</u>** Part A: 4.85 Gallons (in a 5 gal steel pail) Part B: 0.15 Gallons (in a 1 gal metal box)
Shelf Life	Part A: 3 months Part B: 6 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: 14.6 lbs 5 gallon kits: 50.5 lbs

WARRANTY

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