

SELECTION & SPECIFICATION DATA

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| Generic Type | Graphite Flake-Filled, Novolac Vinyl Ester Coating |
| Description | A novolac vinyl ester resin formulated specifically as a silica-free lining and utilizes graphite flake fillers for resistance to a wide variety of acids, caustics, salts, oils and mild alkali solutions. |
| Features | <ul style="list-style-type: none"> • Excellent Chemical Resistance • Conductive Version Available • Low Permeability |
| Typical Uses | <ul style="list-style-type: none"> • Structural Steel • Storage Tanks • Plating Lines, Exterior • Pickling Lines, Exterior • Chemical Storage • Floors |
| Color | Dark Grey (F748) |
| Primer | Primer 27 or Primer 27C |
| Dry Film Thickness | 15 - 20 mils (381 - 508 microns) per coat 30-40 mils (750-1000 microns) total thickness |
| Solid(s) Content | 82% by volume |
| Coverage Rate | 30-35 sq ft per gallon @ 30-40 mils total DFT |
| VOC Value(s) | 73.5 g/L |
| Dry Temp. Resistance | Continuous: 300°F (149°C) Non-Continuous: 350°F (177°C) |
| Chemical Resistance | <ul style="list-style-type: none"> • Organic Acids • Oils • Inorganic Acids • Salts • Alkali Solutions • Solvents |

SUBSTRATES & SURFACE PREPARATION

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| Steel | Immersion and heavy spillage service: White Metal, SSPC-SP 5/NACE No. 1, minimum 3.0 mil (75 microns) profile. Heavy non-immersion service (i.e. fumes and spillage): Near white, Heavy non-immersion: SSPC-SP 10/NACE No. 2, minimum 2.0 mil (50 microns) profile. Atmospheric service: Commercial SSPC-SP6/NACE No. 3, minimum 2.0 mil (50 microns) profile. |
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Protecto-Coat 905

PRODUCT DATA SHEET



SUBSTRATES & SURFACE PREPARATION

Concrete

Must be primed with Primer 27 or Primer 27C.
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 (per SSPC SP-13/NACE No.6). Surface texture should be similar to 40-60 grit sandpaper or the visual standard, CSP 3 from the International Concrete Repair Institute (ICRI) with pea gravel exposed. The prepared surface shall have a minimum tensile strength of 250 PSI per ASTM D7234.

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

PERFORMANCE DATA

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

| Test Method | Results |
|---|---|
| Adhesion to Steel (ASTM D4541) | 2,000 PSI (13.8 MPa) |
| Electrical Properties (ASTM F150, NFPA #99) | 1.5-2.0 Megaohms |
| Flame Retardant Version, WVT (ASTM E96) | Available upon request, 0.0022 perm.in. |
| Flame Spread (ASTM D635) | <5 mm |
| Flame Spread Index (ASTM E84-09) | 35 |
| Flexural Strength (ASTM C580) | 5,000-5,200 PSI (34.5-35.8 MPa) |
| Shore D Hardness (ASTM D2240) | 75-80 |
| Smoke Developed Index (ASTM E84-09) | 130 |
| Taber Abrasion (ASTM D4060) | 23 mg |
| Tensile Strength (ASTM C307) | 2,500-2,800 PSI (17-19.3 MPa) |

MIXING & THINNING

Mixing

Hardener PH-1 Amount/Gallon Resin
3-4 oz (89-118 ml) @ 50°F-70°F (10°C-24°C)
2-3 oz (59-89 ml) @ 70°F-90°F (24°C-32°C)
Mix the material separately to re-disperse pigments and fillers which have settled. Then, add the correct amount of PH-1 Hardener and mix thoroughly until a uniform color is achieved.

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

Thinning

Not required.
If needed, Styrene can be used to thin the coating or prime the pump

Pot Life

Pot life of the mixed material 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 following:
60 minutes @ 50°F (10°C)
40 minutes @ 75°F (24°C)
25 minutes @ 90°F (32°C)

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.

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| General | Materials shall be brush, roller or spray applied in accordance with the manufacturer's recommended practices. |
| Airless Spray | Pump Ratio: 45:1 or greater, capable of at least 1 GPM. Hopper or siphon feed is preferred. Filters: Ensure all filters are removed. Material Hose: 1/2" I.D. (min.), 4500 psi or greater rated. Tip Size: 0.25-0.31" Output PSI: 3000-3500 psi (min.) Gun: Airless gun rated for at least 4500 psi. Filter-free or front-fed gun is preferred. PTFE packings are recommended and available from the pump manufacturer. |
| Brush & Roller (General) | Brush or roller application may require additional coats to meet the specified dry film thickness. |

APPLICATION CONDITIONS

| Condition | Material | Surface | Ambient | Humidity |
|-----------|-------------|--------------|--------------|----------|
| Minimum | 60°F (16°C) | 60°F (16°C) | 60°F (16°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.

CURING SCHEDULE

| Surface Temp. | Minimum Recoat Time | Maximum Recoat Time | Cure Time |
|---------------|---------------------|---------------------|-----------|
| 50°F (10°C) | 12 Hours | 5 Days | 7 Days |
| 75°F (24°C) | 4 Hours | 4 Days | 5 Days |
| 90°F (32°C) | 3 Hours | 3 Days | 90 Hours |

Must be recoated within 6 hours when exposed to direct sunlight.

If these recoat times are exceeded, it must be abraded. Consult a Dudick representative for more information.

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 out-gassing of air in the concrete and high substrate temperatures. Double priming, shading, or evening application may be required. Consult a Dudick representative.

CLEANUP & SAFETY

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| 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. |

Protecto-Coat 905

PRODUCT DATA SHEET



PACKAGING, HANDLING & STORAGE

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| Packaging | 1 Gallon Kits: Part A: 0.97 Gallons (in a 1 gal pail) PH-1 Hardener: 0.03 Gallons in a plastic bottle 5 Gallon Kits: Part A: 4.85 Gallons (in a 5 gal pail) PH-1 Hardener: 1.5 Gallons in a plastic bottle |
| Shelf Life | Part A: 3 months at 50°F-75°F (10°C-24°C)* PH-1 Hardener: 6 months at 50°F-75°F (10°C-24°C) When properly stored in their original, unopened containers. *2 months at temperatures above 75°F (24°C) |
| Storage | Warning: All Dudick products classified by DOT with white, yellow or red labels must not be mixed or stored together as an explosive reaction may occur All products should be stored in a cool, dry area, away from open flames, sparks or other hazards. Exposure to direct sunlight or excessive heat may reduce working time. |
| Shipping Weight (Approximate) | 1 gallon kit: 13.7 lbs. 5 gallon kit: 53.5 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.