

SELECTION & SPECIFICATION DATA

Generic Type	Flake-Filled, Vinyl Ester Coating
Description	A thermosetting vinyl ester coating which utilizes flake fillers for resistance to a wide variety of acids, caustics, salts, oils and mild alkali solutions. It is formulated for higher abrasion resistance than standard Protecto-Coat 800.
Features	<ul style="list-style-type: none"> • Superior abrasion resistance and hardness • Exceptional resistance to inorganic and organic acids • Excellent caustic and alkaline solution resistance • Low coefficient of friction • FDA compliant • Low permeability
Color	Dark Gray (F748), Medium Gray (0766), Light Gray (0725)
Primer	Primer 27 series
Dry Film Thickness	15 - 20 mils (381 - 508 microns) per coat 2 coats will produce a 30-40 mils (750-1000 microns) total dry film thickness which is recommended for immersion service.
Solid(s) Content	77% by volume
Coverage Rate	30-35 sq ft per gallon @ 30-40 mils total DFT
VOC Values	As Supplied : 87 g/l
Dry Temp. Resistance	Continuous: 250°F (121°C) Non-Continuous: 300°F (149°C)
Chemical Resistance	<ul style="list-style-type: none"> • Organic Acids • Oils • Inorganic Acids • Salts • Alkali Solutions

SUBSTRATES & SURFACE PREPARATION

General	Surfaces must be clean and dry. Employ adequate methods to remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating.
Concrete	<p>Must be primed with Primer 27 or Primer 27C.</p> <p>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.</p> <p>All concrete substrates must be checked for moisture and pass the ASTM D4263 Plastic Sheet Test prior to product application.</p>

Protecto-Coat 800AR

PRODUCT DATA SHEET



SUBSTRATES & SURFACE PREPARATION

Ferrous Metal	Primer 27 is recommended to be used to promote better adhesion or as a holding primer in immersion service.
	<u>Immersion and heavy spillage service:</u> White Metal, SSPC SP 5 or NACE No.1, minimum 3.0 mil profile.
	<u>Heavy non-immersion service (i.e. fumes and spillage):</u> Near white, SSPC SP 10 or NACE No.2, minimum 2.0 mil profile.
	<u>Atmospheric service:</u> Commercial SSPC SP 6 or NACE No.3, minimum 2.0 mil profile
Non-Ferrous Metals	Must be primed with Primer 27 for immersion service. Prepare by abrasive blasting to SSPC-SP 17 Thorough Abrasive Blast to a minimum of 3 mils (75 microns) dense angular anchor profile.

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
Flame Spread (ASTM D635)	<5 mm
Flexural Strength (ASTM C580)	5,000-5,200 PSI
Friction Coefficient (D1894)	0.12 Static 0.17 Kinetic
Shore D Hardness (ASTM D2240)	75-80
Taber Abrasion (ASTM D4060)	8 mg
Tensile Strength (ASTM C307)	2,500-2,800 PSI
WVT (ASTM E96)	0.0010 perm. in.

MIXING & THINNING

Mixing	Mix separately to redisperse pigments and fillers. Then, add the correct amount of PH- 1 Hardener to the Part A and mix thoroughly until a uniform color is achieved.
Thinning	Not required.
	If needed, Styrene can be used to thin the coating or prime the pump.
Ratio	PH-1 Hardener Ratio @ Substrate Temperature: 50°F-70°F (10°C-21°C): 3-4 oz per gallon 70°F-90°F (21°C - 32°C): 2-3 oz per gallon
Pot Life	60 minutes @ 50°F (10°C) 40 minutes @ 75°F (23°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.

Airless Spray	<ul style="list-style-type: none"> • 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 <p>PTFE packings are recommended and available from the pump manufacturer. When siphon feed is used, change the pail out as frequent as necessary to avoid exotherm of the catalyzed material.</p>
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

Protecto-Coat 800AR must be recoated within 6 hours when exposed to direct sunlight. 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.

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

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 800AR

PRODUCT DATA SHEET



CLEANUP & SAFETY

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.
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PACKAGING, HANDLING & STORAGE

Packaging	5 Gallon Kits: Part A: 4.85 Gallons (in a 5 gal pail) PH-1 Hardener: 20 oz (in a plastic bottle)
Shelf Life	Part A: 6 months Part B: 6 months Material is not returnable after purchase.
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)	5 gallon kits: 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 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.