

PRODUCT DATA SHEET

### **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.

- · Superior abrasion resistance and hardness
- · Exceptional resistance to inorganic and organic acids
- · Excellent caustic and alkaline solution resistance

#### **Features**

- · Low coefficient of friction
- FDA compliant
- · Low permeability

Color Dark Gray (F748), Medium Gray (0766), Light Gray (0725)

Primer | Primer 27 series

15 - 20 mils (381 - 508 microns) per coat

**Dry Film Thickness** 

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)

- · Organic Acids
- Oils

**Chemical Resistance** 

- · 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.

### 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.

Concrete

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

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### SUBSTRATES & SURFACE PREPARATION

Primer 27 is recommended to be used to promote better adhesion or as a holding primer in immersion service.

Ferrous Metal | Immersion and heavy spillage service: 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.

Atmospheric service: Commercial SSPC SP 6 or NACE No.3, minimum 2.0 mil profile

Must be primed with Primer 27 for immersion service.

Non-Ferrous Metals 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.

Not required.

Thinning

If needed, Styrene or Carboline Thinner 76 can be used to thin the coating or prime the pump.

PH-1 Hardener Ratio @ Substrate Temperature:

**Ratio** 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)

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### 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.

- 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"

#### Airless Spray

- 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. When siphon feed is used, change the pail out as frequent as necessary to avoid exotherm of the catalyzed material.

### 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	Chemical Service	Maximum Recoat Time
50°F (10°C)	12 Hours	4 Days	5 Days
75°F (24°C)	4 Hours	24 Hours	4 Days
90°F (32°C)	3 Hours	10 Hours	3 Days

## **CLEANUP & SAFETY**

Cleanup | Use S-10 Cleaning Solvent 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.

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## PACKAGING, HANDLING & STORAGE

5 Gallon Kits:

**Packaging** 

Part A: 4.85 Gallons (in a 5 gal pail) PH-1 Hardener: 20 oz (in a plastic bottle)

Part A: 6 months Part B: 6 months

**Shelf Life** 

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)

Shipping Weight | 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 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.