

## SELECTION & SPECIFICATION DATA

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<b>Generic Type</b>	Trowel-applied, flake-filled, vinyl ester
<b>Description</b>	A high molecular weight vinyl ester resin based lining also filled with large diameter glass flakes which provides exceptionally low permeability. It is used in high temperature and high abrasion environments.
<b>Features</b>	<ul style="list-style-type: none"> <li>• Excellent abrasion resistance</li> <li>• Excellent chemical resistance</li> <li>• FDA Compliant</li> <li>• Very Low Permeability</li> </ul>
<b>Typical Uses</b>	<ul style="list-style-type: none"> <li>• Scrubbers</li> <li>• Duct work</li> <li>• Stacks</li> <li>• Ion exchange columns</li> <li>• Pickling lines</li> <li>• Fan housings</li> </ul>
<b>Color</b>	Grey (0700), White (0800)
<b>Primer</b>	Primer 27 series
<b>Dry Film Thickness</b>	30 - 40 mils (762 - 1016 microns) per coat
<b>Coverage Rate</b>	23-28 sq ft per gallon @ 30-40 mils total DFT
<b>VOC Values</b>	<b>As Supplied</b> : 93 g/l
<b>Dry Temp. Resistance</b>	Continuous: 220°F (104°C) Non-Continuous: 250°F (121°C)
<b>Chemical Resistance</b>	<ul style="list-style-type: none"> <li>• Organic Acids</li> <li>• Oils</li> <li>• Inorganic Acids</li> <li>• Salts</li> <li>• Alkali Solutions</li> </ul>
<b>Topcoats</b>	Optional topcoat: Gelcoat 800 Applied at 5-10 mils for a smoother surface to provide better commodity release properties.

## SUBSTRATES & SURFACE PREPARATION

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<b>General</b>	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.
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# Protecto-Flake 800

PRODUCT DATA SHEET



## SUBSTRATES & SURFACE PREPARATION

<b>Concrete</b>	<p><b>Must be primed with Primer 27 or Primer 27C.</b> 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>
<b>Ferrous Metal</b>	<p><b>Primer 27 is recommended to be used to promote better adhesion or as a holding primer in immersion service.</b> <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</p>
<b>Non-Ferrous Metals</b>	<p><b>Must be primed with Primer 27 for immersion service.</b> Prepare by abrasive blasting to SSPC-SP 17 Thorough Abrasive Blast to a minimum of 3 mils (75 microns) dense angular anchor profile.</p>

## PERFORMANCE DATA

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

Test Method	Results
Adhesion to Steel ASTM D4541	2,200 PSI
Coefficient of Expansion ASTM D696	12-16x 10 <sup>-6</sup> in./in./°F
Elongation ASTM C307	1%
Flame Spread ASTM D635	100 mm
Flexural Strength ASTM C580	9,300 PSI
Taber Abrasion ASTM D4060	68 mg.
Tensile Strength ASTM C307	3,900 PSI
WVT ASTM E96	0.0002 perm. in.

## MIXING & THINNING

<b>Mixing</b>	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.
<b>Ratio</b>	<b>PH-1 Hardener Ratio @ Substrate Temperature:</b> 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
<b>Pot Life</b>	90 minutes @ 50°F (10°C) 60 minutes @ 75°F (24°C) 40 minutes @ 90°F (32°C)

## APPLICATION PROCEDURES

**Trowel** | Trowel apply at 30-40 mils thick per coat. Spread to an even, smooth finish. Immediately after the trowel application and before the lining has cured, roll the surface with a short nap paint roller dampened with Styrene. This orients the glass flakes parallel to the substrate. Use only enough Styrene to prevent the lining from sticking to the roller.

## APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	50°F (10°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	90°F (32°C)	110°F (43°C)	110°F (43°C)	85%

Substrate temperature must be 5°F (3°C) above the dew point.

## CURING SCHEDULE

Surface Temp.	Dry to Topcoat Minimum	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	20 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 ignition 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** | **5 Gallon Kits:**  
 Part A: 4.85 Gallons (in a 5 gal pail)  
 Part B: 0.15 Gallons (in a 1 gal pail)

**Shelf Life** | 6 months, when properly stored in original, unopened containers at 50°F-75°F (10°C-24°C). Exposure to heat in excess of this temperature may cause premature gelling, reduced working time and shortened 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.

# Protecto-Flake 800

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## PACKAGING, HANDLING & STORAGE

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**Shipping Weight** | 5 gallon kits: 57.5 lbs  
**(Approximate)**

## 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.