

SELECTION & SPECIFICATION DATA

Generic Type	100% solids, graphite-filled novolac epoxy coating
Description	A high-performance, 100% solids, low odor, environmentally safe novolac epoxy coating. Protecto-Coat 105XT uses a moisture-tolerant primer and two coats of graphite flake-filled novolac epoxy resin to protect concrete and metal substrates. The novolac epoxy binder and overlapping flake filler provide the low permeability, high film integrity, and excellent chemical resistance required for prolonged substrate protection.
Features	<ul style="list-style-type: none"> • Broad spectrum chemical resistance • Superior adhesion to metal substrates and concrete • Blush resistant formulation • Meets all VOC Requirements • Can be seeded with Sand or Aluminum Oxide for Anti-Skid
Typical Uses	<ul style="list-style-type: none"> • Secondary Containment • Storage Tanks • Structural Steel • Pump Housings and Floors (Spillage)
Color	Gray (0766) Other colors may be available upon request. Contact your Dudick or Carboline representative for availability. Not available in bright white.
Primer	<p>For maximum performance, all metal surfaces should be primed with Dudick Primer 67 series, but primer may not be needed for mild, non-immersion service.</p> <p>Concrete must be primed to aid in the "wetting out" required for good bonding. Use Dudick Primer 67 series or other primer recommended by Dudick or Carboline technical service.</p>
Dry Film Thickness	<p>15 - 20 mils (381 - 508 microns) per coat</p> <p>Two coats (30-40 mils total DFT) are needed for optimum performance.</p>
Solids Content	By Volume 100%
Theoretical Coverage Rate	<p>1604 ft²/gal at 1.0 mils (39.4 m²/l at 25 microns)</p> <p>107 ft²/gal at 15.0 mils (2.6 m²/l at 375 microns)</p> <p>80 ft²/gal at 20.0 mils (2.0 m²/l at 500 microns)</p> <p>Allow for loss in mixing and application.</p>
VOC Values	As Supplied : 35 g/l
Dry Temp. Resistance	<p>Continuous: 250°F</p> <p>Non-Continuous: 300°F</p>

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.
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Protecto-Coat 105XT

PRODUCT DATA SHEET



SUBSTRATES & SURFACE PREPARATION

Steel | Immersion and heavy spillage service: White Metal, SSPC SP 5 or NACE #1, minimum 3.0 mil profile.
Heavy non-immersion service (i.e. fumes and spillage): Near white, SSPC SP 10 or NACE #2, minimum 2.0 mil profile.
Atmospheric service: Commercial SSPC SP 6 or NACE #3, minimum 2.0 mil profile.

Concrete | 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. Surface texture should be similar to 40-60 grit sandpaper or the visual standard, CSP-5 from the International Concrete Repair Institute with pea gravel exposed. Additional surface preparation will be required if 40-60 grit texture with exposed pea gravel is not achieved and the surface laitance not completely removed with the first mechanical preparation procedure. The prepared surface shall have a tensile strength of 250 PSI per ASTM D7234.

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

PERFORMANCE DATA

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

Test Method	Results
Compressive Strength ASTM C579	9,000 – 9,500 PSI
Flame Spread ASTM D635	<5 mm
Flexural Strength ASTM C580	5,000 – 5,200 PSI
Shore D Hardness ASTM D2240	80 – 85
Taber Abrasion ASTM D4060	50 mg
Tensile Strength ASTM C307	3,000 – 3,500 PSI
WVT ASTM E-96	0.0018 perm. in.

MIXING & THINNING

Mixing | This product may be batch mixed and applied using standard airless spray equipment.
IMPORTANT: Power mix each component separately, then combine and power mix until homogenous.

Thinning | Up to 4 fluid ounces of Thinner 10 can be added to enhance atomization

Ratio | Approximately 2.44:1 by volume.

All kits are premeasured. **DO NOT SPLIT KITS**

Pot Life | Pot life of the mixed product will depend on the temperature. To prevent material waste and avoid damage to equipment, do not mix more material than can be applied in table below.

65 Min @ 50°F
40 Min @ 75°F
20 Min @ 90°F

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	<p>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.</p> <p>When siphon feed is used, change the pail out as frequent as necessary to avoid exotherm of the catalyzed material.</p>
Brush & Roller (General)	<p>Brush or roller application may require additional coats to meet the specified dry film thickness.</p>

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	75°F (24°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	90°F (32°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.	Chemical Service	Dry to Recoat	Maximum Recoat Time
50°F (10°C)	96 Hours	14 Hours	120 Hours
75°F (24°C)	36 Hours	8 Hours	72 Hours
90°F (32°C)	24 Hours	5 Hours	48 Hours

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.

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.

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PACKAGING, HANDLING & STORAGE

Packaging	1 Gallon Kits: Part A: 0.71 Gallons (in a 1 gal pail) Part B: 0.29 Gallons (in a 1 gal pail)
	5 Gallon Kits: Part A: 3.55 Gallons (in a 5 gal pail) Part B: 1.45 Gallons (in a 3.5 gal pail)
Shelf Life	Part A: 12 months Part B: 12 months
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)	1 gallon kits: 30.0 lbs 5 gallon kits: 59.2 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.