

SELECTION & SPECIFICATION DATA

Generic Type	Novolac epoxy vinyl ester
Description	This high performance glass-flake filled coating was designed for application over steel or concrete in extreme chemical exposures. It is resistant to a wide variety of aggressive chemicals, including organic and inorganic acids, most alkalis, and many solvents. It is ideally suited for immersion service as internal steel tank linings, as well as for aggressive chemical splash, spill, and fume exposures on structural steel. Typical uses include steel tank and vat linings, secondary containment, structural steel, process floors, grating, sumps and trenches, scrubbers, and clarifiers.
Features	<ul style="list-style-type: none"> • Outstanding resistance to aggressive chemicals • Suitable for use as a highly chemically resistant lining • Excellent for splash, spill and film exposures on structural steel • Glass-flake reinforced film • High tensile and flexural strength • High film thickness
Color	Grey 0700
Primer	Primer (optional, as needed): Self-priming to steel To control outgassing on concrete: Dudick Primer 27 Pit/void filler and surfacer: Dudick Scratch-Coat 800 Control Moisture Vapor Transmission (MVT): Dudick Vapor Stop
Dry Film Thickness	15 - 20 mils (381 - 508 microns) per coat For tank linings; Two coats are recommended. For structural steel (other): One or two coats depending on the exposure For concrete: Two coats are recommended
Coverage Rate	62-67 ft ² /gal at 20.0 mils (1.52-1.64 m ² /l at 508 microns) 80-94 ft ² /gal at 15.0 mils (1.96-2.31 m ² /l at 381 microns)
VOC Values	As Supplied : 0.13 lbs/gal (16 g/l)
Dry Temp. Resistance	Continuous: 300°F (149°C)

SUBSTRATES & SURFACE PREPARATION

General	<ul style="list-style-type: none"> • Immersion: SSPC-SP10; Minimum 3.5 mil profile • Non-Immersion: SSPC-SP10; Minimum 2 mil profile
Concrete or CMU	All concrete requires abrasive blasting to remove laitance and to provide a hard, firm, clean and fully-cured concrete surface. All concrete surfaces are required to be filled and sealed prior to application. Contact Carboline for recommendations.

MIXING & THINNING

Mixing	This product is normally batch mixed and applied with standard airless application equipment but can be applied with plural component catalyst injection spray equipment. For batch mixed, standard airless application the part A should be thoroughly mixed until uniform with a mechanical high speed agitator. Once Part A is uniform the entire contents of part B should be added to the Part A and this catalyzed material mixed with a mechanical high speed agitator until uniform and for a minimum of five minutes. For plural component catalyst injection consult Carboline Technical Service.
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MIXING & THINNING

Thinning	Thinning is not normally required and not recommended when using plural component catalyst injection spray equipment. Additive 47 at up to 5% by volume may be used for thinning when using standard airless application equipment but a reduction in the cure speed can be expected.
Pot Life	30-40 minutes @ 75 °F (24 °C) and significantly less at higher temperatures when batch mixed and applied with standard airless application equipment

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.

Spray Application (General)	<p>Small quantities may be applied using a 2-gallon bottom-fed pot. Conventional atomizing spray system shall be equal to: Binks Model 2001 Gun with 59ASS Fluid Nozzle – 251 Air Cap 559SS Needle Heavy-duty trigger spring recommended. Pot pressure of approximately 50 psi (3.4 bars). Atomizing pressure of approximately 60 psi (4.1 bars). (Use standard production-type pressure pot with air motor drive agitator).</p> <p>Note: Application by conventional spray equipment may affect maximum film building capabilities and coverage rates.</p>
Airless Spray	<p>Airless spray system requires a large capacity pump with a capacity of 3 g.p.m. (11.1 l.p.m.) similar or equal to: Graco (Bulldog may be used in certain instances) King air motor with 0.025" or larger fluid nozzle; 12in (30 cm) minimum spray width is recommended. Use liquid pressure of approximately 1800 to 2200 psi (124-152 bars). All screens should be removed from pump and gun. A 3/8 in. (9 mm) diameter fluid line is recommended.</p>
Plural Component Airless Spray	Use a 45:1 fluid pump (less filters) on a special cart with a Binks Super Slave, 12 gal Stainless Steel hopper, air regulator assembly, up to a 100' resin, catalyst and air hose assembly, swivel, Century Gun with T.C.Seat , needle and tip.
Brush & Roller (General)	Product may be applied using a brush or roller for small areas only.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	60°F (16°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	90°F (32°C)	120°F (49°C)	120°F (49°C)	80%

Vinyl esters will not cure if exposed to moisture prior to cure. Protect from moisture during application and cure.

CURING SCHEDULE

Surface Temp.	Dry to Recoat	Maximum Recoat
50°F (10°C)	12 Hours	7 Days
75°F (24°C)	5 Hours	7 Days

CURING SCHEDULE

Surface Temp.	Dry to Recoat	Maximum Recoat
90°F (32°C)	2 Hours	5 Days

*Based on 50% humidity

Cure for splash & spill service: 24 hours at 75°F (23°C) and 50% RH

Cure for immersion service: 48 hours at 75°F (23°C) and 50% RH

CLEANUP & SAFETY

Cleanup | Use Carboline Thinner 2 or Acetone. In case of spillage absorb and dispose of in accordance with local applicable regulations.

Safety | Read and follow all caution statements on this product data sheet on the SDS. Employ normal safety precautions.

Ventilation | When used as a tank lining or in enclosed areas, thorough air circulation 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. If not sure or if not able to monitor levels, use MSHA/NIOSH approved supplied air respirator.

Caution | This product is flammable. 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 hazard exist workers should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

PACKAGING, HANDLING & STORAGE

Shelf Life | Part A: 6 months at 75°F (24°C)
Part B: 12 months at 75°F (24°C)

Storage Temperature & Humidity | Store at 50-90 °F (10-32 °C)
For 24-48 hours preceding use, narrow the storage temperature to 70-85°F (21-29°C) to facilitate mixing

Storage | Store indoors out of direct sunlight

Shipping Weight (Approximate) | 4.7 gal kit: 57 lbs (26 kg)
0.94 gal kit: 12 lbs (5.5 kg)

Flash Point (Setaflash) | Part A: 87 °F (31 °C)
Part B: 176 °F (80 °C)

Plasite[®] 4301 HT

PRODUCT DATA SHEET



WARRANTY

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