

SELECTION & SPECIFICATION DATA

Generic Type	Amine-adduct cured epoxy
Description	This product is a solvent-free, high performance epoxy coating specifically designed as a pit filling primer with ideal flow properties allowing it to wet-out and fill moderate to severe pitting on steel tank bottoms. It's unique formula allows batch mixing for ease of application. Plural component spray equipment is not required. With an appropriate lining, it can handle exposures typically seen in the oil and gas industries. It is resistant to crude oil, NGL condensates, produced water, brines, and industrial process water.
Features	<ul style="list-style-type: none"> • Highly penetrating formula to handle severe pitting • Blast hold protection • Batch mix formulation, single leg airless spray. • Superior adhesion to steel • Excellent abrasion resistance and flexibility • Can be applied down to 35°F/2°C • Can be used with multiple lining systems • Non-blushing with a long recoat window • Convenient packaging for batch mix • Low odor
Color	Standard: Manilla (0200), Gray (Z700)
Primer	Self-priming.
Dry Film Thickness	3 - 5 mils (76 - 127 microns) after pits are filled For moderate to severely pitted steel tank bottoms apply as needed to fill and seal pits. This may result in an average of 15 mils or more. Plan accordingly.
Solids Content	By Volume 98% +/- 2%
Theoretical Coverage Rate	1572 ft ² /gal at 1.0 mils (38.6 m ² /l at 25 microns) 524 ft ² /gal at 3.0 mils (12.9 m ² /l at 75 microns) 314 ft ² /gal at 5.0 mils (7.7 m ² /l at 125 microns) Allow for loss in mixing and application.
VOC Values	As Supplied 4 g/l
Wet Temp. Resistance	Immersion temperature resistance depends upon exposure, consult Carboline Technical Service for specific information

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
Steel	Cleanliness: Abrasive blast to SSPC-SP10 (minimum) Profile: Minimum 3 mil (75 micron) dense, sharp anchor profile free of peening, as measured by ASTM D 4417. Defects exposed by blasting must be repaired. Use appropriate abrasive mix to clean pit depressions.

Phenoline[®] Tank Shield FP

PRODUCT DATA SHEET



SUBSTRATES & SURFACE PREPARATION

Concrete	Concrete: Clean and dry. Remove all loose, unsound concrete. Do not apply coating unless concrete has cured at least 28 days @ 70°F (21°C) and 50% RH or equivalent. Prepare surfaces in accordance with ASTM D4258 Surface Cleaning of Concrete and ASTM D4259 Abrading Concrete. Voids in concrete may require filling/surfacing.
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MIXING & THINNING

Mixing	This product may be batch mixed and applied using standard airless spray equipment. Combine and power mix until homogeneous. Scrape sides and bottoms of cans to mix thoroughly. Component Details: Manilla (0200): The Part A is black and part B is yellow. Grey (Z700): The Part A is black and Part B is white.
Thinning	Thinning not normally required. Consult Carboline Technical Service before thinning. CLEANUP THINNER: Thinner 2 or 76.
Ratio	1:1 by volume (Part A to Part B)
Pot Life	30 minutes @75°F(24°C) material temperature and less at higher temperatures. Storage in a cool location will aid with pot life. This product will exotherm (heat up) in large containers and shorten pot life. Mix only what you can apply within the pot life. The 4 gal. kits are packaged for simple and fast mixing with extra space in the A bucket for the B side.

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.

General	This is a high solids coating and may require adjustments in spray techniques. The following spray equipment has been found suitable and is widely available.
Airless Spray	Airless spray equipment capable of minimum 5000 psi (55:1 ratio or larger). Fluid hose shall be minimum 1/2" I.D. with short 3/8" I.D. whip hose recommended. Airless spray gun shall be rated minimum 6000 psi utilizing reverse-a-clean tips sizes 0.017-0.027". Fixed-ratio (1:1 by volume) plural component equipment may also be used. For severely pitted steel surfaces, the use of a squeegee and/or back-rolling will aid in the complete coverage and treatment of pits. Consult Carboline Technical Service for details.
Roller	Phenoline Tank Shield FP may be poured and spread thin with short nap synthetic core rollers. Pour mixed material in ribbons to minimize placement time and maintain workability.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	55°F (13°C)	35°F (2°C)	35°F (2°C)	0%
Maximum	110°F (43°C)	125°F (52°C)	110°F (43°C)	85%

This product requires the substrate temperature to be above the dew point. Condensation due to substrate temperatures below the dew point can cause flash rusting on prepared steel and interfere with proper adhesion to the substrate. Special application techniques may be required above or below normal application conditions.

CURING SCHEDULE

Surface Temp.	Dry to Touch	Dry to Handle or Topcoat	Maximum Recoat Time
35°F (2°C)	24 Hours	30 Hours	30 Days
50°F (10°C)	12 Hours	14 Hours	30 Days
75°F (24°C)	6 Hours	7 Hours	30 Days
90°F (32°C)	4 Hours	4 Hours	30 Days

For recoating, if the product has exceeded the maximum recoat time, de-gloss and roughen by light sanding or mechanically abrade the surface and remove dust prior to topcoating.

CLEANUP & SAFETY

Cleanup | Thinner 2 or 76 are recommended for clean up.

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

PACKAGING, HANDLING & STORAGE

Packaging | Available in 10-gal(37.8-lit), 4-gal (15.1 lit) and 2 gal. (7.5 lit) kits.

Shelf Life | 12 months

Storage Temperature & Humidity | 40° - 110°F (4°-43°C)
0-90% Relative Humidity

Shipping Weight (Approximate) | 12 lbs/gal (5.5 kg/gal)

Flash Point (Setaflash) | Part A: 166°F (74°C)
Part B: 204°F (95°C)

WARRANTY

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