

## SELECTION & SPECIFICATION DATA

<b>Generic Type</b>	Phenoline epoxy novolac
<b>Description</b>	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. With an appropriate lining, it can withstand exposures typically seen in the oil and gas industries. It is resistant to crude oil, NGL condensates, produced water, brines, and industrial process water.
<b>Features</b>	<ul style="list-style-type: none"> <li>• Highly penetrating formula to handle severe pitting</li> <li>• Blast hold protection</li> <li>• Batch mix formulation, single leg airless spray.</li> <li>• Superior adhesion to steel</li> <li>• Excellent abrasion resistance and flexibility</li> <li>• Can be applied down to 2°C</li> <li>• Can be used with multiple lining systems</li> <li>• Non-blushing with a long recoat window</li> <li>• Convenient packaging for batch mix</li> <li>• Tested and approved to AS/NZS 4020:2018 when topcoated with Phenoline Tank Shield (refer to data sheet)</li> <li>• Low odour</li> </ul>
<b>Colour</b>	Manilla (0200)
<b>Primer</b>	Self-priming.
<b>Dry Film Thickness</b>	76 - 127 microns (3 - 5 mils) after pits are filled For moderate to severely pitted steel tank bottoms apply as needed to fill and seal pits.
<b>Solids Content</b>	By Volume 93% +/- 2%
<b>Theoretical Coverage Rate</b>	36.6 m <sup>2</sup> at 25 microns (1492 ft <sup>2</sup> at 1.0 mils) 12.2 m <sup>2</sup> at 75 microns (497 ft <sup>2</sup> at 3.0 mils) 7.3 m <sup>2</sup> at 125 microns (298 ft <sup>2</sup> at 5.0 mils) Allow for loss in mixing and application.
<b>VOC Values</b>	<b>As Supplied</b> : 56 g/l
<b>Wet Temp. Resistance</b>	Immersion temperature resistance depends upon exposure, consult Carboline Technical Service for specific information

## SUBSTRATES & SURFACE PREPARATION

<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
<b>Steel</b>	Cleanliness: Abrasive blast to SSPC-SP 10 (AS 1627.4 Sa 2½) (minimum) Profile: Minimum 75 micron dense, sharp anchor profile free of peening, as measured by ASTM D4417. 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 @ 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.

### MIXING & THINNING

**Mixing** | This product may be batch mixed and applied using standard airless spray equipment. Combine and power mix until homogeneous.

Component Details:  
Manilla (0200): The Part A is black and Part B is yellow.

**Thinning** | Thinning not normally required. CLEANUP THINNER: Thinner #2 or #76.

**Ratio** | 1:1 by volume (Part A to Part B)

**Pot Life** | 40 minutes @ 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 Part A container for the B to be incorporated.

### 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** | Phenoline Tank Shield FP can fill deep and large pits. Sections of tank floor with heavy pitting will require more material than smooth areas and require heavier application. Consider this when estimating usage. A 500 micron wet film average is usually sufficient for pitted tank floors. Weld seams should receive their stripe coat with the lining rather than this primer.

**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 minimise placement time and maintain workability.

### APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	13°C (55°F)	2°C (35°F)	2°C (35°F)	0%
Maximum	43°C (110°F)	52°C (125°F)	43°C (110°F)	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
2°C (35°F)	24 Hours	30 Hours	30 Days
10°C (50°F)	12 Hours	14 Hours	30 Days
24°C (75°F)	6 Hours	7 Hours	30 Days
32°C (90°F)	4 Hours	4 Hours	30 Days

For recoating, if the product has exceeded the maximum recoat time, de-gloss and roughen by 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 MSDS 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. In addition to ensuring proper ventilation, appropriate respirators must be used by all application personnel.

## PACKAGING, HANDLING & STORAGE

**Packaging** | Available in a 15.1 litre (4-gal) kit.

**Shelf Life** | 12 months

**Storage Temperature & Humidity** | 4°- 43°C  
0-90% Relative Humidity

**Flash Point (Setaflash)** | Part A: 74°C  
Part B: 95°C

**Shipping Weight (Approximate)** | 5.5 kg/3.78 litres (12 lbs/gal)

## WARRANTY

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