

## Selection & Specification Data

<b>Generic Type</b>	Polyamine Epoxy
<b>Description</b>	<u>Ultra high solids, high-build corrosion-resistant coating and lining for use in Navy ballast tanks, double hull areas, and in other aggressive environments where protection of steel and concrete surfaces is critical.</u> Applied as a two-coat primer/finish system or as a single-coat direct-to-metal finish, Phenoline 370 is a low silica product that exhibits outstanding performance and application properties.
<b>Features</b>	<ul style="list-style-type: none"> <li>▪ Ultra-low non-reportable silica content levels</li> <li>▪ Very good flow and application properties</li> <li>▪ Wide chemical resistance to acids, caustics and aliphatic solvents</li> <li>▪ Application by conventional, airless or plural component spray equipment</li> <li>▪ VOC compliant to current AIM regulations</li> <li>▪ Meets requirements of:               <ul style="list-style-type: none"> <li>•Marintek Testing for Ballast Tanks (B1 rating)</li> </ul> </li> </ul>
<b>Color</b>	Primer: Green (0300) Finish: Gray (C705)
<b>Finish</b>	Gloss
<b>Primers</b>	Phenoline 370 Primer. Phenoline 370 Finish can serve as a self-priming finish.
<b>Topcoats</b>	Phenoline 370 Finish
<b>Dry Film Thickness</b>	<u>370 Primer:</u> 4.0-6.0 mils (100-150 microns) <u>370 Finish:</u> 12.0-20.0 mils (80-130 microns)
<b>Solids Content</b>	By Volume (Primer & Finish): 99% ± 1%
<b>Theoretical Coverage Rate</b>	1588 mil ft <sup>2</sup> (39.0 m <sup>2</sup> /l at 25 microns) Allow for loss in mixing and application
<b>VOC Values</b>	As supplied: 0.04 lbs/gal (5 g/l) EPA Method 24: 0.08 lbs/gal (10 g/l) These are nominal values and may vary slightly with color.
<b>Dry Temp. Resistance</b>	Continuous: 200°F (93°C) Non-Continuous: 250°F (121°C) Discoloration and loss of gloss is observed above 180°F (82°C).
<b>Wet Temp. Resistance</b>	Continuous: 100°F (38°C) Non-Continuous: 125°F (52°C) Immersion temperature resistance depends upon exposure. Consult Carboline Technical Service for specific information.
<b>Limitations</b>	<ul style="list-style-type: none"> <li>▪ Epoxies lose gloss, discolor and eventually chalk in sunlight exposure.</li> <li>▪ This coating commonly develops an <i>amine-blush</i> during cure. While this condition will not adversely affect performance of the coating, this blush must be removed before applying additional coats and may require removal before placing into service.</li> </ul>

## 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>	<u>Immersion:</u> SSPC-SP5 or SP10 <u>Non-Immersion:</u> SSPC-SP6 <u>Surface Profile:</u> 2.0-4.0 mils (75-125 micron)
<b>Concrete</b>	<u>Immersion and Non-Immersion:</u> Concrete must be cured 28 days at 75°F (24°C) and 50% relative humidity or equivalent. Prepare surfaces in accordance with ASTM D4258 Surface Cleaning of Concrete and ASTM D4259 Abrading Concrete. Voids in concrete may require surfacing.

November 1999

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## Application Equipment

**Spray Application (General)** Recommended for application by single or plural component airless spray. This is a high solids coating and may require adjustments in spray techniques. Wet film thickness is easily and quickly achieved. The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.

**Conventional Spray** Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, .052" I.D. fluid tip and appropriate air cap.

**Airless Spray** Pump Ratio: 45:1 (min.)  
GPM Output: 3.0 (min.)  
Material Hose: 1/2" I.D. (min.)  
Tip Size: .015-.019"  
Output PSI: 3000-3700  
Filter Size: 60 mesh  
Teflon packings are recommended and available from the pump manufacturer.  
Contact Carboline Technical Service for plural component equipment recommendations.

**Brush & Roller (General)** Recommended only for touch-up and striping of welds. Two coats may be required to obtain the specified film thickness and a uniform application over rough/pitted surfaces. Avoid excessive re-brushing or re-rolling.

**Brush** Use a natural bristle brush.

**Roller** Use a medium-nap synthetic roller with phenolic core.

## Mixing & Thinning

**Mixing** Power mix separately, then combine and power mix. DO NOT MIX PARTIAL KITS.

**Ratio** 370 Primer: 1:1 Ratio (A to B)  
370 Finish: 4:1 Ratio (A to B)

**Thinning** Not recommended. Use of thinners other than those supplied by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.

**Pot Life** 370 Primer: 60 minutes at 75°F (24°C)  
370 Finish: 45 minutes at 75°F (24°C). Pot life times will be less at higher temperatures.

## Cleanup & Safety

**Cleanup** Use #2 Thinner 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 and on the MSDS for this product. Employ normal workmanlike safety precautions. Hypersensitive persons should wear protective clothing, gloves and use protective cream on face, hands and all exposed areas.

**Ventilation** Vapors and/or spray mist may cause explosion. 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.

**Caution** This product contains flammable solvents. 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, workmen should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

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## Application Conditions

Condition	Material	Surface	Ambient	Humidity
Normal	70°-80°F (21°-27°C)	70°-80°F (21°-27°C)	70°-90°F (21°-32°C)	0-75%
Minimum	60°F (16°C)	45°F (7°C)	50°F (10°C)	0%
Maximum	90°F (32°C)	110°F (43°C)	110°F (43°C)	85%

This product simply 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. To reduce outgassing when applying to concrete substrates, do not apply in direct sunlight or when surface temperatures are increasing. Best results are obtained when ambient and surface temperatures are decreasing or constant.

## Curing Schedule

Surface Temp. & 50% Relative Humidity	Dry to Topcoat Primer	Maximum Recoat Time for Primer and Finish	Final Cure for Immersion Service
45°F (10°C)	48 Hours	28 Days	28 Days
60°F (16°C)	24 Hours	14 Days	14 Days
75°F (24°C)	12 Hours	7 Days	7 Days
90°F (32°C)	6 Hours	4 Days	4 Days
105°F (32°C)	3 Hours	2 Days	2 Days

These times are based on the recommended dry film thickness' shown on page 1 of this product data sheet. Higher film thickness, insufficient ventilation or cooler temperatures will require longer cure times. Condensation on the surface or humidity above 25% during application and curing will result in a surface haze or blush. Any haze or blush must be removed by water washing before recoating. During high humidity conditions, it is recommended that the application be done while temperatures are increasing. If the maximum recoat time is exceeded, the surface must be washed with detergent and water, then abraded by sweep blasting prior to the application of additional coats. **For force curing, contact Carboline Technical Service for specific requirements.**

## Packaging, Handling & Storage

**Shipping Weight (Primer)** 2 Gallon Kit 24 lbs (11 kg) 10 Gallon Kit 230 lbs (105 kg)

**Shipping Weight (Finish)** 1 Gallon Kit 13 lbs (6 kg) 5 Gallon Kit 64 lbs (29 kg)

**Flash Point (Setaflash) (Primer & Finish)** Part A: >205°F (96°C)  
Part B: >205°F (96°C)

**Storage (General)** Store Indoors.

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

**Shelf Life** 24 months at 75°F (24°C)



370 Hanley Industrial Court St. Louis, MO 63144-1599  
314-644-1000 314-644-4617 (fax) www.carboline.com