



## SELECTION & SPECIFICATION DATA

<b>Generic Type</b>	Modified Phenalkamine epoxy
<b>Description</b>	High performance immersion grade epoxy specifically designed for water storage and treatment. High solids formulation provides superior edge retention and corrosion resistance. Meets the requirements of various AWWA standards making it ideal for use on numerous treatment, storage, and conveyance assets.
<b>Features</b>	<ul style="list-style-type: none"> <li>• Certified by UL to meet NSF/ANSI/CAN 61 and NSF/ANSI/CAN 600*</li> <li>• Conforms to multiple AWWA D102 ICS systems</li> <li>• One coat application - Up to 20 mils in a single coat</li> <li>• Excellent moisture tolerance during application</li> <li>• Low-temperature cure (20 °F)</li> <li>• Superior corrosion resistance in potable water immersion</li> <li>• Low VOC</li> </ul> <p>*Valid when manufactured at a certified location.</p>
<b>Typical Uses</b>	Steel and concrete potable water storage tanks, water treatment facilities, atmospheric and immersed steel in moderately corrosive environments, water transmission pipe, ductile iron pipe, water fittings, valves, and other appurtenances
<b>Color</b>	Beige (0200), White (0800), and Blue (0100)
<b>Gloss</b>	Semi-gloss
<b>Primer</b>	Self-Priming
<b>Dry Film Thickness</b>	5 - 8 mils (127 - 203 microns) per coat Can be applied up to 20 mils (500 microns) in a single coat or 30 mils in two coats.
<b>Solids Content</b>	By Volume 80% +/- 2%
<b>Theoretical Coverage Rate</b>	1283 ft <sup>2</sup> /gal at 1.0 mils (31.5 m <sup>2</sup> /l at 25 microns) 257 ft <sup>2</sup> /gal at 5.0 mils (6.3 m <sup>2</sup> /l at 125 microns) 160 ft <sup>2</sup> /gal at 8.0 mils (3.9 m <sup>2</sup> /l at 200 microns) Allow for loss in mixing and application.
<b>VOC Values</b>	<b>As Supplied</b> : 1.42 lbs/gal (170 g/l) mixed Thinner 2 : 16 oz/gal 2.06 lbs/gal (248 g/l)  These are nominal values and may vary with color.
<b>Dry Temp. Resistance</b>	Continuous: 200°F (93°C) Non-Continuous: 250°F (121°C)
<b>Topcoats</b>	May be coated with Acrylics, Epoxies, Alkyds, or Polyurethanes depending on exposure and need.

### Potable Water Certifications

UL Potable Water	Tank	Valve	Dry Film Thickness	Cure to Service
<b>Certification Rating</b>	≥ 30,000 gallons	≥ 4 inches	1 coat < 20 mils 2 coats < 30 mils	7 days

### SUBSTRATES & SURFACE PREPARATION

<b>General</b>	Remove any oil or grease from surface to be coated with clean rags soaked in Carboline Thinner 2, or acetone.
<b>Steel</b>	<b>Immersion:</b> SSPC-SP10; Surface Profile: 1.5-3.0 mils (38-75 microns). <b>Non-Immersion:</b> SSPC-SP6; Surface Profile: 1.5-3.0 mils (38-75 microns). In certain situations SSPC-SP3 is acceptable for thicknesses up to 8 mils (150 microns).
<b>Concrete or CMU</b>	Concrete shall be designed, placed, cured, and prepared per NACE No. 6/SSPC-SP 13, latest edition. Abrade to remove all laitance, loose concrete, etc. and to create surface profile in accordance with the appropriate ICRI CSP 2-5 depending on final dry film thickness. This product can tolerate SSD (saturated surface dry) surfaces. Consult Carboline Technical Service for more specific recommendations.
<b>Non-Ferrous Metals</b>	Surface profile should be a dense angular 1.5 - 3 mils and is best achieved through abrasive blasting in accordance with SSPC-SP16 for atmospheric exposure, or SSPC-SP17 for immersion environments.
<b>Ductile or Cast Iron</b>	<b>Immersion and Buried Service:</b> Abrasive blast clean per NAPF 500-03-04. <b>Non-Immersion:</b> Remove all oil and grease from surface by Solvent Cleaning per NAPF 500-03-01.

### MIXING & THINNING

<b>Mixing</b>	Mix separately, then combine and mix in the following proportions: <u>1 Gal. Kit</u> Part A: 0.2 gallon Part B: 0.8 gallon <u>5 Gal. Kit</u> Part A: 1 gallon Part B: 4 gallon Thin up to 12.5% by volume with Carboline Thinner 2.
<b>Thinning</b>	<b>Preferred Thinner Uses and Application:</b> Thin up to 12.5% by volume with Carboline Thinner 2 (applies for potable water applications) <b>Alternate Compatible Thinners for atmospheric service:</b> Carboline Thinner 2, 10, 76, 225E, 229, 236E, 243E, and 248  Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance, void product warranty, and may void UL or NSF approval whether expressed or implied.
<b>Ratio</b>	1:4 Ratio (A to B)
<b>Pot Life</b>	1.5 hours at 75 °F (24 °C) and less at higher temperatures. Pot life ends when coating becomes too viscous to use.

### 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.

<b>Conventional Spray</b>	Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, 0.070" I.D. fluid tip and appropriate air cap.
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## 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.

<b>Airless Spray</b>	Pump Ratio: 30:1 (min.) GPM Output: 2.5 (min.) Material Hose: 3/8" I.D. (min.) Tip Size: 0.017"-0.021" Output PSI: 1500-2300 Filter Size: 60 mesh PTFE packings are recommended and available from the pump manufacturer.
<b>Brush &amp; Roller (General)</b>	Not recommended for tank lining applications except when striping welds. For non-immersion applications over damp surfaces, brush and roller is the preferred method. Multiple coats may be required to obtain desired appearance, recommended dry film thickness and adequate hiding. Avoid excessive re-brushing or re-rolling. For best results, tie in within 10 minutes at 75 °F (24 °C). Thin up to 12% by volume per gallon with Thinner 2. Use a short-nap synthetic roller cover with solvent resistant core.

## APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	45°F (7°C)	20°F (-7°C)	20°F (-7°C)	0%
Maximum	90°F (32°C)	120°F (49°C)	100°F (38°C)	85%

Industry standards are for substrate temperatures to be above the dew point. For immersion conditions it is recommended to follow this procedure. For non-immersion conditions Hydroplate 1080 can tolerate damp substrates. See Brush or Roller above. Special thinning and application techniques may be required above or below normal conditions.

## CURING SCHEDULE

Surface Temp.	Dry to Recoat	Maximum Recoat Time	Final Cure Immersion
20°F (-7°C)	72 Hours	30 Days	45 Days
35°F (2°C)	17 Hours	30 Days	30 Days
60°F (16°C)	6 Hours	14 Days	14 Days
75°F (24°C)	2 Hours	14 Days	7 Days
90°F (32°C)	2 Hours	7 Days	6 Days

\*Surface temperatures reported were at 50 % RH.

**These times are based on a 5.0-8.0 mil (125-200 micron) dry film thickness per coat.** Higher film thickness, insufficient ventilation or cooler temperatures will require longer cure times and could result in solvent entrapment and premature failure. Excessive humidity or condensation on the surface during curing can interfere with the cure, can cause discoloration and may result in a surface haze. Any haze or blush must be removed by water washing before recoating. If the maximum recoat times have been exceeded, the surface must be abraded by sweep blasting or sanding prior to the application of additional coats. **Refer to Carboline's certified product listing on UL's Product iQ website ([info.carboline.com/potable](http://info.carboline.com/potable)) for details on cure, maximum DFT, and other requirements.**

<b>Curing Details</b>	<b>To recoat at high film thicknesses (20+ mils)</b> 20 mils at 35 °F (10 °C) = 2 days 20 mils at 60 °F (16 °C) = 40 hours 20 mils at 75 °F (24 °C) = 24 hours 20 mils at 90 °F (32 °C) = 24 hours <b>Hydroplate 1080 that has been applied at thicknesses greater than 25 mils will require longer cure times, especially if applied thinned.</b>
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# Hydroplate<sup>®</sup> 1080

## PRODUCT DATA SHEET



### CLEANUP & SAFETY

<b>Cleanup</b>	Use Thinner 2 or Acetone. In case of spillage, absorb and dispose of in accordance with local applicable regulations.
<b>Safety</b>	Read and follow all caution statements on this product data sheet and on the SDS for this product. Employ normal workmanlike safety precautions. Keep container closed when not in use.
<b>Ventilation</b>	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.
<b>Caution</b>	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, workers should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

### PACKAGING, HANDLING & STORAGE

<b>Shelf Life</b>	Part A: 36 months at 75 °F (24°C) Part B: 12 months at 75 °F (24°C)  *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
<b>Storage Temperature &amp; Humidity</b>	40-100 °F (4-38 °C) 0-95% Relative Humidity
<b>Storage</b>	Store Indoors. KEEP DRY
<b>Shipping Weight (Approximate)</b>	1 Gal. Kit - 14 lbs. (6 kg) 5 Gal. Kit - 72 lbs. (33 kg)
<b>Flash Point (Setaflash)</b>	Part A: 104 °F (40 °C) Part B: 45 °F (7 °C) Thinner 2: 23 °F (-5 °C)

### 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 Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance, injuries or damages resulting from use. Carbolines sole obligation, if any, is to replace or refund the purchase price of the Carboline product(s) proven to be defective, at Carbolines option. Carboline shall not be liable for any loss or damage. 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.