

## Selection & Specification Data

<b>Generic Type</b>	Modified Epoxy Coating
<b>Description</b>	Carbomastic 18 NT is a heavy duty, high build coating for the protection of steel in corrosive environments. It is an excellent replacement lining for coal-tar epoxies where coal-tar is not allowed.
<b>Features</b>	<ul style="list-style-type: none"> <li>• Excellent immersion performance in both fresh and sea water</li> <li>• Suitable as a rust preventive coating in ballast tanks and hull applications</li> <li>• Ideal for sub-sea installations, jackets and other areas prone to condensation</li> <li>• Can be applied as low as 5°C (40°F)</li> <li>• Good flexibility</li> <li>• Very good abrasion resistance</li> <li>• VOC compliant</li> </ul>
<b>Color</b>	Gray (0700) and Buff (0200)
<b>Finish</b>	Semi-Gloss
<b>Primer</b>	Self-priming
<b>Dry Film Thickness</b>	8.0 - 10.0 mils (203 - 254 microns) per coat  5-20 mils depending on application. Typically 8-10 mils per coat.
<b>Solids Content</b>	By Volume 80% +/- 2%
<b>Theoretical Coverage Rates</b>	
<b>Theoretical Coverage Rate</b>	1283 ft <sup>2</sup> at 1.0 mils (31.5 m <sup>2</sup> /l at 25 microns) 160 ft <sup>2</sup> at 8.0 mils (3.9 m <sup>2</sup> /l at 200 microns) 128 ft <sup>2</sup> at 10.0 mils (3.1 m <sup>2</sup> /l at 250 microns)  Allow for loss in mixing and application.
<b>VOC Values</b>	As Supplied 1.34 lbs./gal (160 g/l) These are nominal values.
<b>Dry Temp. Resistance</b>	Continuous: 250 °F (121 °C) Non-Continuous: 300 °F (149 °C)
<b>Limitations</b>	Epoxies lose gloss, discolor and eventually chalk in sunlight exposure. Not recommended for immersion in aromatic or ketone solvents or strong oxidizing acids.
<b>Thinner &amp; Cleaner</b>	<ul style="list-style-type: none"> <li>• Thinner: Thinner #10</li> <li>• Cleaner: Thinner #2</li> </ul>
<b>Topcoats</b>	

## 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. Carboline Surface Cleaner 3 is recommended.
<b>Steel</b>	Immersion: (SSPC-SP10) with a 2-3 mil surface profile. Non-Immersion: (SSPC-SP2) minimum is acceptable. Surface Profile: 2.0-3.0 mils (50-75 micron)

## Substrates & Surface Preparation

<b>Concrete or CMU</b>	Concrete must be cured 28 days at 20°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.
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## Performance Data

Test Method	System	Results
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Det Norske Veritas Type Approval – K-1629 Impact Test – DIN 30671 Impact Test – ASTM D2794 Abrasion Test – Taber – BS 2782 Method 370 Norsok M-501 System 7 Submerged

Exposure	Fumes	Splashes & Spills
Acids	Good	Fair
Alkalies	Excellent	Very Good
Solvents	Good	Fair
Water	Excellent	Excellent

## Mixing & Thinning

<b>Mixing</b>	Power mix separately, then combine and power mix. DO NOT MIX PARTIAL KITS.
<b>Thinning</b>	Up to 25% with Thinner #10
<b>Ratio</b>	4:1 Ratio (A to B) by Volume
<b>Pot Life</b>	6 Hours at 75°F and less at higher temperatures.

## 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.)* Volume Output: 2.5 gpm min. Material Hose: 3/8" I.D. min. Tip Size: .023-.027" Output Pressure: 2100-2400 psi Filter Size: 60 mesh *PTFE packings are recommended and available from the pump manufacturer.
<b>Brush &amp; Roller (General)</b>	For small areas only. Multiple coats may be required to obtain desired appearance, recommended dry film thickness and adequate hiding.
<b>Brush</b>	Use a good quality decorator's brush.
<b>Roller</b>	Use a medium-nap synthetic roller.
<b>Spray Application (General)</b>	The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.

## Application Conditions

Condition	Material	Surface	Ambient	Humidity
Minimum	40 °F (4 °C)	40 °F (4 °C)	40 °F (4 °C)	0%
Maximum	95 °F (35 °C)	125 °F (52 °C)	100 °F (38 °C)	85%

Industry standards are for substrate temperatures to be 5°F above the dew point. Condensation due to substrate temperatures below the dew point can cause flash rusting on prepared steel. Special application techniques may be required above or below normal application conditions.

# Carbomastic<sup>®</sup> 18NT

## Curing Schedule

Surface Temp. & 50% Relative Humidity	Dry to Handle	Final Cure General	Maximum Dry to Recoat for Immersion
40 °F (4 °C)	24 Hours	18 Days	20 Days
50 °F (10 °C)	14 Hours	14 Days	20 Days
70 °F (21 °C)	8 Hours	6 Days	20 Days
85 °F (29 °C)	6 Hours	4 Days	20 Days

These times are based on a 6-8 mil dry film thickness. Higher film thicknesses, insufficient ventilation, or cooler temperatures will require longer cure times and could result in solvent entrapment and premature failure.

## Cleanup & Safety

- Cleanup** Use Thinner #2. 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** When used 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.

## Packaging, Handling & Storage

- Shelf Life** 24 months at 40°F-110°F  
\*Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
- Storage Temperature & Humidity** 40°F-110°F (5°-45°C)  
0-100% Relative Humidity
- Storage** Store Indoors.

## Typical Chemical Resistance

Exposure	Fumes	Splashes & Spills
Acids	Excellent	Very Good
Alkalies	Excellent	Very Good
Salt	Excellent	Excellent
Solvents	Very Good	Fair
Water	Excellent	Excellent



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