

## Selection & Specification Data

<b>Generic Type</b>	Epoxy polyamide
<b>Description</b>	<p>Carbomastic 18 BT is a fast-curing, heavy-duty, high-build anti-corrosive coating with a broad and versatile list of uses in marine and other corrosive environments. It is an excellent choice for the protection of ship hull exteriors, underwater and ballast tanks. Offshore applications include sub-sea, jackets, production decks, drilling rig legs, pontoons, in immersed surfaces.</p> <p>It meets the demands in the IMO Performance Standard for Protective Coatings. It is classified "B1" (Superior Grade) under DNV standard "Testing and Classification of Ballast Tank Coatings". It is type approved by ABS for ballast tanks and double bottom spaces.</p>
<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</li> <li>• Good flexibility</li> <li>• Very good abrasion resistance</li> <li>• Coal tar free formulation</li> <li>• VOC compliant</li> <li>• User friendly 'easy-mix' packaging (8 litre kit mixed in 11 litre pail)</li> </ul>
<b>Gloss</b>	Semi-gloss
<b>Colour</b>	Gray (0700) and Buff (0200)
<b>Primers</b>	Self-priming (for maintenance & new build) Carboweld® 11 approved by ABS for new builds
<b>Topcoats</b>	Not normally top-coated
<b>Dry Film Thickness</b>	Up to 500 microns in one or more coats depending on application. Multiple 125-150 micron passes.
<b>Solids Content</b>	By Volume: 75% ± 2%
<b>Theoretical Coverage Rate</b>	6 m <sup>2</sup> / litre at 125 microns DFT. Allow for loss in mixing and application.
<b>Mix Ratio</b>	1:1 by volume (Part A : Part B)
<b>VOC Values</b>	As supplied: 209 grams / litre These are nominal values.
<b>Dry Temp. Resistance</b>	Continuous: 121°C Non-Continuous: 150°C
<b>Limitations</b>	Epoxies lose gloss, discolour and eventually chalk in sunlight exposure. Not recommended for immersion in aromatic or ketone solvents or strong oxidizing acids. When topcoated with light-coloured finishes, some "bleed-through" may occur.

## Substrates & Surface Preparation

<b>General</b>	Surfaces must be clean and dry. Employ adequate methods to remove dirt, dust, oil and all other contaminants as described in AS 1627.1 (SSPC SP1).
<b>Steel</b>	<p><u>Immersion:</u> AS 1627.4 Class 2½ (SSPC-SP10).</p> <p><u>Non-Immersion:</u> AS 1627.7 (SSPC-SP2) min'm. is acceptable. Surface Profile: 50-75 microns.</p>
<b>Concrete</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.

## Performance Data

<b>Det Norske Veritas (DNV)</b>	<p>Classification: B1</p> <p>Testing and Classification of Ballast Tank Coatings.</p> <p>Testing includes 180 days in condensation chamber and 180 days in wave tank under cathodic protection.</p>
<b>American Bureau of Shipping (ABS)</b>	<p><u>Type Approval:</u> Certificate Number: 08-HS361814-DUP</p> <p><u>Intended Service:</u> Carbomastic 18 BT may be used as protective coatings for dedicated seawater ballast tanks in all types of ships, and double-side skin spaces of bulk carriers. For applications requiring coating approval in accordance with IMO PSPC, use only with steel prepared in compliance with IMO PSPC requirements as minimum.</p> <p><u>ABS Rules:</u> Steel Vessels Rules 1-1/4/7.7 &amp; 1-1/A3, 3-2-18/5.3 Part 5A, Section 6 (Oil Tankers) Part 5B, Chapter 3, Section 5 (Bulk Carriers)</p> <p><u>International Standards:</u> SOLAS II-1/3-2, IMO Resolution MSC.215(82) referred as IMO PSPC, IACS PR34, IACS UI SC223</p>

Chemical Resistance Guide			
Exposure	Immersion	Splash Spill	Fumes
Acids	Poor	Very good	Excellent
Alkalis	Good	Very good	Excellent
Solvents	Poor	Fair	Very good
Salt water	Excellent	Excellent	Excellent
Fresh water	Excellent	Excellent	Excellent

# Carbomastic® 18 BT

## Application Equipment

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 Guidelines:**

**Spray Application (General)** The following spray equipment has been found suitable and is available from manufacturers such as DeVilbiss and Graco.

**Conventional Spray** Pressure pot equipped with dual regulators, 9.5mm (3/8") I.D. minimum material hose, 1.8mm (.070") I.D. fluid tip and appropriate air cap.

**Airless Spray** Pump Ratio: 30:1 (min.)  
Volume Output: 10 lt/minute min.  
Material Hose: 9.5mm (3/8") I.D. min.  
Tip Size: .023-.027"  
Output Pressure: 2100-2400 psi  
Filter Size: 60 mesh  
Teflon packings are recommended and available from the pump manufacturer.

**Brush & Roller (General)** For small areas only. Multiple coats may be required to obtain desired appearance, recommended dry film thickness and adequate hiding.

**Brush** Use a good quality decorators 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. Allow 10-minute induction time prior to use.

**Ratio** Mix 1:1 by volume (Part A : Part B)

**Thinning** Up to 15% with Thinner #10 under normal conditions.

**Pot Life** 2 Hours at 24°C and less at higher temperatures.

## 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 vapour 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.

**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 appropriate electrical codes. In areas where explosion hazards exist, workmen should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

## Application Conditions

Condition	Material	Surface	Ambient	Humidity
Normal	16°-32°C	16°-32°C	16°-32°C	20-80%
Minimum	10°C	4°C	4°C	0%
Maximum	35°C	52°C	38°C	85%

Industry standards are for substrate temperatures to be 3°C 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.

## Curing Schedule

Surface Temp. & 50% Relative Humidity	Dry to Recoat	Maximum Time to Recoat for Immersion	Final Cure
5°C	24 hours	20 days	18 days
10°C	14 hours	20 days	14 days
20°C	8 hours	20 days	6 days
30°C	6 hours	20 days	4 days

These times are based on a 150-200 micron 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.

## Packaging, Handling & Storage

**Pack Sizes** 8 litre kits  
Part A: 4 litre (in part full 11 litre pail)  
Part B: 4 litre

**Flash Point (Setaflash)** Part A: 27°C  
Part B: 32°C  
Mixed: 33°C

**Storage Temperature & Humidity** Store under cover.  
5°- 43°C  
0-100% Relative Humidity

**Shelf Life** Minimum 24 months at 5°- 43°C

**\*Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.**

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