product data carboline®

Carbomastic® 18 BT

Selection & Specification Data

Generic Type Epoxy polyamide

Description **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. It meets the demands in IMO Performance Standard for Protective Coatings. It is classified “B1” (Superior Grade) under DNV standard “Testing and Classification of Ballast Tank Coatings”.

Features
- Excellent immersion performance in both fresh and sea water
- Suitable as a rust preventive coating in ballast tanks and hull applications
- Ideal for sub-sea installations, jackets and other areas exposed to sea water
- Can be applied as low as 5°C (40°F)
- Good flexibility
- Very good abrasion resistance
- VOC compliant

Color Gray (0700) and Buff (0200)

Finish Semi-Gloss

Primer Self-priming

Dry Film Thickness 5 - 6 mils (127 - 152 microns) per coat

Up to 20 mils (500 microns) in one or more coats depending on application.
Multiple 5-6 mil passes

Solids Content By Volume 75% +/- 2%

Theoretical Coverage Rate
1203 ft^2/gal at 1.0 mils (29.5 m^2/l at 25 microns)
241 ft^2/gal at 5.0 mils (5.9 m^2/l at 125 microns)
200 ft^2/gal at 6.0 mils (4.9 m^2/l at 150 microns)

Allow for loss in mixing and application.

VOC Values As Supplied 1.74 lbs./gal (209 g/l)

These are nominal values.

Dry Temp. Resistance
Continuous: 250 °F (121 °C)
Non-Continuous: 300 °F (149 °C)

Epoxies discolor (darken) when exposed to elevated temperatures.

Approvals Det Norske Veritas (DNV): Classification B1; Testing and Classification of Ballast Tank Coatings
American Bureau of Shipping (ABS): Type Approval for Ballast Tanks

Limitations Epoxies lose gloss, discolor and eventually chalk in sunlight exposure. Not recommended for immersion in aromatic or ketone solvents or strong oxidizing acids. When topcoated with light-colored finishes, some “bleed-through” may occur.

Substrates & Surface Preparation

General 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.

Steel Immersion: (SSPC-SP10) with a 2-3 mil surface profile.
Non-Immersion: (SSPC-SP2) minimum is acceptable.

Concrete or CMU 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.

Mixing & Thinning

Mixing Power mix separately, then combine and power mix. DO NOT MIX PARTIAL KITS. Allow 10- minute induction time prior to use.

Thinning Up to 15% with Thinner #10

Ratio 1:1 Ratio (B to A) by Volume

Pot Life 2 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.

Spray Application (General) The following spray equipment has been found suitable and is available from manufacturers.

Airless Spray Pump Ratio: 30:1 (min.)*
Volume Output: 2.5 gpm min.
Material Hose: 3/8" I.D. min.
Tip Size: 0.023-0.027”
Output Pressure: 2100-2400 psi
Filter Size: 60 mesh
*PTFE 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. Use a good quality brush or medium nap synthetic core roller.

Application Conditions

Condition	Material	Surface	Ambient	Humidity
Minimum	50 °F (10 °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.

June 2017

1033

Carbomastic® 18 BT

Curing Schedule

Surface Temp.*	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.

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.

Shipping Weight (Approximate) 2 Gal. Kit - 30 lbs (13.6 kg)
10-Gal Kit - 138 lbs (62.7 kg)

Flash Point (Setaflash) Part A: 80°F (27°C)
Part B: 90°F (32°C)
Mixed: 91°F (33°C)

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

Det Norske Veritas (DNV)
Classification: B1
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carboline®
Coatings - Linings - Fireproofing

June 2017

1033