

SELECTION & SPECIFICATION DATA

Generic Type	Epoxy Polyamide
Description	Carboguard 60 T is a ready-to-spray, high solids, versatile corrosion resistant coating for the protection of many steel surfaces from atmospheric weathering including railcars, tanks, equipment, piping and structural steel. It can be used as a primer, or self-priming finish direct to steel. It may be topcoated with a broad variety of high performance finish coats. This product has excellent wetting properties giving it the capability of going over marginally prepared substrates.
Features	<ul style="list-style-type: none"> • Ready to spray as supplied • High solids, low VOC • Easy 1:1 mix ratio • Long pot life • Self-priming finish • Surface tolerant • Long recoat window
Color	Black C900, Gray 2758, and White 1898
Finish	Semi-Gloss
Primer	Self-priming. May be applied over organic and inorganic zinc rich primers. A mist coat may be required to minimize bubbling over zinc rich primers.
Dry Film Thickness	<p>102 - 152 microns (4 - 6 mils) above profile as single coat rail finish. 102 - 254 microns (4 - 10 mils) per coat in one or two coats for more durability.</p> <p>Do not exceed 10 mils in a single coat</p>
Solids Content	By Volume 68% +/- 2%
Theoretical Coverage Rate	<p>26.8 m²/l at 25 microns (1091 ft²/gal at 1.0 mils) 6.7 m²/l at 100 microns (273 ft²/gal at 4.0 mils) 2.7 m²/l at 250 microns (109 ft²/gal at 10.0 mils) Allow for loss in mixing and application.</p>
VOC Values	As Supplied : 2.3 lbs/gal (275 g/l)
Dry Temp. Resistance	<p>Continuous: 149°C (300°F) Non-Continuous: 177°C (350°F)</p> <p>Prolonged exposure above 200°F/93°C may cause discoloration (darkening), but will not affect performance.</p>
Limitations	Epoxies lose gloss, discolor and eventually chalk in sunlight exposure.
Topcoats	May be topcoated with Carboline epoxy and urethane finishes.

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.
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Carboguard 60 T

PRODUCT DATA SHEET



SUBSTRATES & SURFACE PREPARATION

Steel	For most applications: Non-immersion: SSPC-SP6 or better. 1.5-3.0 mils (38-75 microns)
Previously Painted Surfaces	SSPC-SP2 or SP3

PERFORMANCE DATA

All test data was generated under laboratory conditions. Field testing results may vary.

Test Method	System	Results
ASTM D2794 Impact resistance	Blasted Steel 1ct.	100 in. lbs (direct)
ASTM D3363 Pencil Hardness	Blasted Steel 1 ct.	4H-5H
ASTM D4541 Pneumatic Adhesion	Blasted Steel 1 ct. 2 ct.	1 ct. >1500 psi 2 cts. >1500 psi
ASTM D522 Flexibility	Blasted Steel 1 ct.	No cracking, 5/8" Conical Mandrel Bend

MIXING & THINNING

Mixing	Power mix separately, then combine and power mix. Allow mixed product 15 minute sweat in time before thinning if material is under 70°F. No sweat in needed above 70°F DO NOT MIX PARTIAL KITS.
Thinning	Spray: Carboguard 60 T is supplied ready to spray. Brush & Roller: May be thinned up to 5% with Carboline Thinner No. 2 or No. 33. Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.
Ratio	1:1 ratio A:B
Pot Life	4 Hours at 75°F (24°C) Pot life ends when coating loses body and begins to sag. Pot life times will be 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.

Conventional Spray	Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, .070" I.D. fluid tip and appropriate air cap. For filler additives use a 0.110" I.D. fluid tip.
Airless Spray	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: 2100-2500 Filter Size: 60 mesh (remove mesh for filler additives) *PTFE packings are recommended and available from the pump manufacturer.

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Brush & Roller (General)	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).
Brush	Use a medium bristle brush.
Roller	Use 3/8" nap phenolic core roller.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	10°C (50°F)	4°C (40°F)	4°C (40°F)	0%
Maximum	32°C (90°F)	60°C (140°F)	49°C (120°F)	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.

CURING SCHEDULE

Surface Temp.	Dry to Handle	Dry to Recoat	Dry to Touch	Maximum Recoat Time
4°C (40°F)	30 Hours	48 Hours	3 Hours	1 Year
10°C (50°F)	20 Hours	24 Hours	2 Hours	1 Year
16°C (60°F)	8 Hours	10 Hours	1 Hour	1 Year
24°C (75°F)	5 Hours	7 Hours	45 Minutes	1 Year
32°C (90°F)	3 Hours	4 Hours	30 Minutes	1 Year

These times are based on a 5.0 mil (125 micron) dry film thickness. 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. For force curing, contact Carboline Technical Service for specific requirements.

CLEANUP & SAFETY

Cleanup	Use Thinner #2 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.
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. If not sure or if not able to monitor levels, use MSHA/NIOSH approved respirator.

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PRODUCT DATA SHEET



PACKAGING, HANDLING & STORAGE

Shelf Life	Part A & B: Min. 24 months at 75°F (24°C) *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
Shipping Weight (Approximate)	<u>2 Gallon Kit</u> 26 lbs. (12 kg) <u>10 Gallon Kit</u> 127 lbs. (58 kg)
Storage Temperature & Humidity	40° - 100°F (4° - 37.8°C) 0-100% Relative Humidity
Flash Point (Setaflash)	Part A: 103°F (39°C) Part B: 56°F (13°C)
Storage	Store Indoors.

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.