Carboguard® 1207

carboline®

MARINE/OFFSHORE COATINGS product data

Selection & Specification Data

Generic Type Polyamido-Amine Epoxy

Description Ultra-durable solvent-free coating for use on steel and concrete substrates subject to severe impact and physical abuse. This aggregate filled coating offers exceptional abrasion resistance in heavy-duty marine and splash zone environments.

Features
- Superior abrasion resistance
- Excellent resistance to aerated seawater and various other chemicals
- Excellent immersion performance
- Easy to repair
- VOC compliant to current AIM regulations

Color Dark Gray (0700)

Finish Gloss

Primers Self-priming. May be applied over certain Carboline epoxies and zincs. Contact your Carboline sales representative for specific recommendations.

Topcoats Polyurethanes for non-immersion applications.

Dry Film Thickness 3/16" (4.88 mm)

Solids Content By Volume: 98% ± 2%

Theoretical Coverage Rate 1572 mil ft^2 (39.0 m^2/l at 25 microns)
Allow for loss in mixing and application

VOC Values As supplied: 0.12 lbs/gal (14 g/l)

Dry Temp. Resistance
Continuous: 200°F (93°C)
Non-Continuous: 250°F (121°C)
Discoloration and loss of gloss is observed above 200°F (93°).

Limitations Epoxies lose gloss, discolor and eventually chalk in sunlight exposure.

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.

Steel SSPC-SP10 with a 3.0-4.0 mil (75-100 micron) surface profile.

Concrete Concrete must be cured 28 days at 75°F (24°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. Prime with specific Carboline primers as recommended by your Carboline sales representative.

Performance Data

Test Method	System	Results	Report #
ASTM D4541 Adhesion	Blasted Steel 1 ct. 1207 187 mils	1000 psi over steel 750 psi over concrete (Elcometer)	08482
ASTM D4060 Abrasion	1 ct. 1207	53.0 mg. loss. 1000 cycles, CS17 Wheel	SR341
ASTM D2240 Durometer Hardness	1 ct. 1207 3/16" DFT	Shore D A:45, B: 70	08482
ASTM D1653 Water Vapor Transmission	1 ct. 1207 200 mils DFT	Water Vapor Permeance of 1.02, 1.55 U.S. Perms, .518 metric perm cms., Moisture Vapor Transmission of 24.3	02656
ASTM B117 Salt Fog	Blasted Steel 1 ct. 1207 3/16" DFT	No blistering, rusting or rust creepage at scribe after 4000 hours	02674
ASTM D2794 Gardner Impact	1 ct. 1207 187 mils over ¼" steel	0.25" damaged area diameter at 100"/lb.	02675

Test reports and additional data available upon written request.

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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 Binks, DeVilbiss and Graco.

Conventional Spray Bottom Feed pressure pot equipped with dual regulators, ¾" I.D. minimum material hose, ¼" I.D. fluid tip and appropriate air cap. 50-75 psi fluid pressure. Air pressure for atomization to be 15-20 psi higher than fluid pressure.

Airless Spray

Pump Ratio:	11:1 (min.) Grout Pump*
GPM Output:	5.0 (min.)
Material Hose:	¾" I.D. (min.)
Tip Size:	¼"-3/8"
Output PSI:	35-45

*Teflon packings are recommended and available from the pump manufacturer. If the spray operation stops for any reason, purge the system with soap & water, followed by Thinner #2.

Brush & Roller Not recommended.

Mixing & Thinning

Mixing Power mix separately, then combine and power mix. Add silica filler slowly while agitating. DO NOT MIX PARTIAL KITS.

Ratio

Part A:	1.4 gals. (5 gal. pail)
Part B:	0.65 gals. (1 gal. pail)
Silica Filler 3:	50 lb. bag

Thinning Not generally required. May be thinned 6oz/gal up to 13 oz/gal with Thinner #213 for some spray applications. Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.

Pot Life 90 minutes at 75°F (24°C)
30 minutes at 90°F (32°C)
Pot life ends when coating becomes too viscous to use. Pot life times will be less at higher temperatures.

Cleanup & Safety

Cleanup Use Thinner #2 or Acetone. It is very important that the equipment be cleaned thoroughly at the end of each day. Care should be taken as to the type of cleaning solvent left in each system. It can cause problems with packings, stator tubes, supply hoses, etc. Each equipment supplier has procedures for cleaning and maintaining their particular piece of equipment. Please contact them for recommendations. 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 as 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.

Cleanup & Safety Cont.

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 National Electric Code. 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	50°-90°F (10°-32°C)	50°-90°F (10°-32°C)	50°-90°F (10°-32°C)	0-80%
Minimum	50°F (10°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	110°F (43°C)	110°F (43°C)	110°F (43°C)	90%

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. & 50% Relative Humidity	Dry to Handle	Minimum Recoat Time	Maximum Recoat Time	Undocking Time
50°F (10°C)	36 Hours	48 Hours	7 Days	14 Days
60°F (16°C)	30 Hours	48 Hours	7 Days	10 Days
75°F (24°C)	16 Hours	16 Hours	5 Days	7 Days
90°F (32°C)	8 Hours	12 Hours	5 Days	7 Days

These times are based on a 3/16" (4.8 mm) 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. During high humidity conditions, it is recommended that the application be done while temperatures are increasing. If the maximum recoat time is exceeded, the surface must be abraded by sweep blasting before the application of additional coats.

Packaging, Handling & Storage

Shipping Weight (Approximate) 4.37 Gallon Kit
74 lbs (34 kg)

Flash Point (Setaflash)

Part A:	175°F (79°C)
Part B:	315°F (157°C)
Silica:	NA

Storage (General) Store Indoors.

Storage Temperature & Humidity 40° -110°F (4°-43°C)
0-100% Relative Humidity

Shelf Life Part A & B: Min. 36 months at 75°F (24°C)

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

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