Carboguard® 1207

PRODUCT DATA SHEET

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. It is ideal for high abuse areas on offshore structures exposed to aerated sea water (splash zone), boat landing areas, or working decks, lay down areas, helidecks, or walkways. It can be also be used for buried pipe due to its outstanding physical durability. Consult Carboline Tech Service for high profile non-skid applications.
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
Primer	Self-priming. May be applied over certain Carboline epoxies and zincs. Contact your Carboline sales representative for specific recommendations.
Dry Film Thickness	80 - 100 mils (2032 - 2540 microns) per coat For deck applications: 80-100 mils (2000-2500 microns) For splash zone applications: 2 coats of 80-100 mils/coat for a total of 180 mils (4500 microns).
Solids Content	By Volume 98% +/- 2%
Theoretical Coverage Rate	1572 ft²/gal at 1.0 mils (38.6 m²/l at 25 microns) 20 ft²/gal at 80.0 mils (0.5 m²/l at 2000 microns) 16 ft²/gal at 100.0 mils (0.4 m²/l at 2500 microns) Allow for loss in mixing and application.
VOC Values	Thinner 213 13 oz/gal = 0.74 lbs/gal 89 g/l Thinner 213 6 oz/gal = 0.42 lbs/gal 50 As Supplied 0.12 lbs/gal 14 g/l These are nominal values.
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 C).
Limitations	Epoxies lose gloss, discolor and eventually chalk in sunlight exposure.
Topcoats	May be coated with Polyurethanes depending on exposure and need. May be topcoated with polyurethanes for non-immersion applications.

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 3-4 mil (75-100 micron) surface profile.
Concrete or CMU	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
ASTM B117 Salt Fog	Blasted Steel 1ct. 1207 @180 mils DFT	No blistering, rusting or rust creepage at scribe after 4000 hours
ASTM D 1653 Water Vapor Transmission	1 ct. 1207 200 mils DFT	Water Vapor Permeance of 1.02, 1.55 U.S. Perms, 0.518 metric perm cms., Moisture Vapor Transmission of 24.3
ASTM D2240 Durometer Hardness	1 ct. 1207 @180 mils DFT	Shore D: 70
ASTM D2794 Gardner Impact	1ct. 1207 180 mils over 1/4" steel	0.25" damaged area diameter at 100 inch/lbs
ASTM D4060 Abrasion	1 ct. 1207	53.0 mg. loss. 1000 cycles, CS17 Wheel
ASTM D4541 Adhesion	Blasted Steel 1ct. 1207 @180 mils DFT	1000 psi over steel. 750 psi over concrete (Elcometer)

Test reports and additional data available upon written request.

MIXING & THINNING

Mixing	Power mix separately, then combine and power mix. Add silica filler slowly while agitating. DO NOT MIX PARTIAL KITS.
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.
Ratio	Part A: 1.4 gals. (5 gal. pail) Part B: 0.65 gals. (1 gal. pail) Silica Filler 3: 50 lb. bag
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.

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 equipment manufacturers.

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	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 *PTFE 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 (General)	Not recommended.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	50°F (10°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	110°F (43°C)	140°F (60°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.	Dry to Handle	Final Cure	Maximum Recoat Time	Minimum Recoat Time
50°F (10°C)	36 Hours	14 Days	7 Days	48 Hours
60°F (16°C)	30 Hours	10 Days	7 Days	48 Hours
75°F (24°C)	16 Hours	7 Days	5 Days	16 Hours
90°F (32°C)	8 Hours	7 Days	5 Days	12 Hours

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.

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.

CLEANUP & SAFETY

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.
Caution	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, workers should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

PACKAGING, HANDLING & STORAGE

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.
Storage Temperature & Humidity	40° -110°F (4°-43°C) 0-100% Relative Humidity
Storage	Store indoors
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) Mixed: 326°F (163°C) Silica: NA

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 or injuries resulting from use. Liability, if any, is limited to replacement of products. 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.