Carboguard 893 SG LT

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Epoxy polyamide with corrosion inhibitor (zinc phosphate)
Description	Versatile corrosion resistant coating. Used either as a primer, intermediate coat, or self-priming finish over steel and zinc primers. May be topcoated with itself, or a broad variety of high performance finish coats. Product also has surface tolerant properties and low temperature 35°F cure capability.
Features	• Ready to apply after mixing; no sweat-in time or thinning required. • Economical fit for use epoxy • Available in a variety of rapid tint colors • Attractive low sheen for tank exteriors • Used as a primer, intermediate, or finish coat • Power tool cleaned surfaces acceptable • VOC compliant to current AIM regulations
Color	Primer color (0700) gray. Variety of other finish coat colors in rapid tint service. Use Bright White (T800) for tank exterior finish.
Finish	Eggshell
Primer	Self-priming. May be applied over zinc rich primers. A mist coat may be required to minimize bubbling over inorganic zinc rich primers.
Dry Film Thickness	76 - 127 microns (3 - 5 mils) per coat 102 - 152 microns (4 - 6 mils) per coat 3-5 mils per coat as a primer or intermediate. Two coats at 3-5 mils per coat may be used direct-to-metal. 4-6 mils per coat as a finish coat over a primer. Do not exceed 10 mils (250 microns) in a single coat. Excessive film thickness over inorganic zincs may increase damage during shipping or erection.
Solids Content	By Volume 63% +/- 2%
Theoretical Coverage Rate	24.8 m²/l at 25 microns (1011 ft²/gal at 1.0 mils) 8.3 m²/l at 75 microns (337 ft²/gal at 3.0 mils) 4.1 m²/l at 150 microns (168 ft²/gal at 6.0 mils) Allow for loss in mixing and application.
VOC Values	**As Supplied** : 2.65 lbs./gal (318 g/l) Thinner 10 : 15 oz/gal: 3.12 lbs./gal (374 g/l) Thinner 236 E : 16 oz/gal: 2.65 lbs./gal (318 g/l) Thinner 243 E : 16 oz/gal: 2.65 lbs./gal (318 g/l) Thinner 33 : 16 oz/gal: 3.17 lbs./gal (380 g/l) These are nominal values and may vary slightly with color.
Dry Temp. Resistance	Continuous: 93°C (200°F) Non-Continuous: 121°C (250°F) Discoloration and loss of gloss is observed above 200°F.
Limitations	Epoxies lose gloss, discolor and eventually chalk in sunlight exposure. LT Cure will cause additional discoloration as it weathers and/or ages.

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Topcoats	May be coated with Acrylics, Epoxies, Alkyds, or Polyurethanes depending on exposure and need.

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	For most applications: SSPC-SP6 to obtain a blast profile of 1.0-2.0 mils (25-50 microns). May also be applied over SSPC-SP3 for certain applications.
Galvanized Steel	Galvanizing requires a roughened surface for optimum adhesion/performance of high build epoxies. Remove any contaminants per SSPC-SP1. Ensure there are no chemical treatments that may interfere with adhesion. Abrade the surface to establish a suitable roughness, typically 1 mil. SSPC-SP7 or SP11 are acceptable methods.
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.

MIXING & THINNING

Mixing	Power mix separately, then combine and power mix. DO NOT MIX PARTIAL KITS.
Thinning	• Normally not required but may thin as follows: • Spray: Up to 15 oz/gal (12%) with Thinner #10 • Brush & Roller: Up to 16 oz/gal (12%) with Thinner #33 • Thinner 236E or 243E may be used as an exempt thinner in lieu of those listed above. 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 to B)
Pot Life	4 Hours at 75°F (24°C) Pot life ends when coating thickens and loses application properties. 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 manufacturers.
Conventional Spray	Pressure pot equipped with dual regulators, 3/8” I.D. minimum material hose, 0.070” I.D. fluid tip and appropriate air cap.

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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: 2100-2300
- Filter Size: 60 mesh
- *PTFE packings are recommended and available from the pump manufacturer.

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)	2°C (35°F)	2°C (35°F)	0%
Maximum	32°C (90°F)	52°C (125°F)	43°C (110°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 Recoat	Maximum Recoat Time
2°C (35°F)	24 Hours	120 Days
10°C (50°F)	18 Hours	120 Days
16°C (60°F)	7 Hours	90 Days
24°C (75°F)	6 Hours	90 Days
32°C (90°F)	2 Hours	90 Days

These times are based on 50% relative humidity and 4.0-6.0 mil (100-150 micron) dry film thickness for atmospheric exposures. 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 SDS for this product. Employ normal workmanlike safety precautions.

CLEANUP & SAFETY

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.
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, 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.
Shipping Weight (Approximate)	• 20 Liters Kit • A: 10 L (16,2 kg) • B: 10 L (15,739 kg) • • 360 Liters Kit • A: 180 L (280,8 kg) • B: 180 L (288 kg)
Storage Temperature & Humidity	• 40° - 110°F (4°- 43°C) • 0-100% Relative Humidity
Flash Point (Setaflash)	• Part A: 75°F (24°C) • Part B: 80°F (27°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 to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. Carboline warrants our products to be free of manufacturing defects in accord with applicable Carboline quality control procedures. THIS WARRANTY IS NOT VALID WHEN THE PRODUCT IS NOT: (1) APPLIED IN ACCORDANCE WITH CARBOLINE'S SPECIFICATIONS, AND/OR (2) PROPERLY STORED, CURED, AND USED UNDER NORMAL OPERATING CONDITIONS. Carboline assumes no responsibility for coverage, performance, injuries, or damages resulting from use of the product. If this product is found not to perform as specified upon inspection by a Carboline representative during the warranty period, Carboline's sole obligation, if any, is to replace the Carboline product(s) proven to be defective or refund the purchase price thereof, at Carboline's sole option. Carboline shall not be liable for any other losses or damages. This warranty excludes (1) labor and costs of labor for the application or removal of any product, and (2) any incidental or consequential damages, whether based on breach of express or implied warranty, negligence, strict liability or any other legal theory. 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. The whole text of this Product Data Sheet, as well as the documents derived from it, have been written in English, and for legal purposes the English version shall prevail.