Carboguard® 8922 LH

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Cross-linked epoxy
Designation	**This is a Carboline Specialty Product** Minimum order quantities and special pricing will apply in North America. Contact your Carboline Sales Representative for more details.
Description	Carboguard 8922 LH is a versatile corrosion resistant coating. May be topcoated with itself, or a broad variety of high performance finish coats. Carboguard 8922 LH has surface tolerant properties. Specially formulated to meet current Federal guidelines for HAPS content.
Features	• Ready to apply after mixing; no sweat-in time or thinning required • Economical fit for use epoxy • Used as a primer or intermediate coat • Can be applied over power tool cleaned surfaces • Wet on wet application at 75° F (24°C) substrate temperature • Acceptable over iron phosphate preparation • Low HAPS of 1.85 pounds/solid gallon
Color	Primer color (0700) gray
Finish	Satin
Dry Film Thickness	2 - 4 mils (51 - 102 microns) per coat
Solids Content	By Volume 61% +/- 2%
Theoretical Coverage Rate	978 ft²/gal at 1.0 mils (24.0 m²/l at 25 microns) 489 ft²/gal at 2.0 mils (12.0 m²/l at 50 microns) 245 ft²/gal at 4.0 mils (6.0 m²/l at 100 microns) Allow for loss in mixing and application.
VOC Values	**As Supplied** : 2.79 lbs./gal 334 g/l Thinned: 12 oz/gal w/ #72: 3.21 lbs/gal (384 g/l) These are nominal values and may vary slightly with color.
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 may lose gloss, discolor and chalk when exposed to sunlight. Not recommended for immersion service.
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	Also acceptable over SSPC-SP2 and over blasted steel (SSPC-SP6) with a low 1-2 mil blast profile.

SUBSTRATES & SURFACE PREPARATION

Phospatized Steel	For most applications: apply 8922 LH directly to dry, properly phosphatized substrate. Perform adhesion tests to ensure proper, uniform and acceptable adhesion direct to the phosphatized metal substrate.

PERFORMANCE DATA

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

Test Method	System	Results
Adhesion (ASTM D4541)	Carboguard 8922 LH @1.9 mils	1200 psi average (cohesive failure)
Elongation/Flexibility (ASTM D522)	Carboguard 8922 LH @3.3 mils	Conical Mandrel: 3/8" diameter; 10.7% Elongation
Salt Fog (ASTM B117)	Carboguard 8922 LH / Carbothane 134 HG over Grit blasted steel	1500 hours: Plane, #8/6 Few blisters; Scribe, #6 Few blisters, Rust in scribe
Salt Fog (ASTM B117)	Carboguard 8922 LH / Carbothane 134 HG over Phosphatized steel	500 hours; Plane, No Effect; Scribe, Rust in Scribe only

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 12 oz/gal (10%) with Thinner 72. Thinner 33 can also be used but it does contain HAPS. 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	3 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.

Spray Application (General)	The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.
Conventional Spray	Pressure pot equipped with dual regulators, 3/8” I.D. minimum material hose, .070” I.D. fluid tip and appropriate air cap.
Airless Spray	Pump Ratio: 30:1 (min.)* GPM Output: 2.5 (min.) Material Hose: 3/8” I.D. (min.) Tip Size: .015”-.019” Output PSI: 2100-2300 Filter Size: 60 mesh *Teflon packings are recommended and available from the pump manufacturer.

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.

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 a short-nap synthetic roller cover with phenolic core.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	50°F (10°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	90°F (32°C)	125°F (52°C)	110°F (43°C)	80%

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	Maximum Recoat Time
50°F (10°C)	12 Hours	30 Minutes	1 Year
60°F (16°C)	6 Hours	10 Minutes	1 Year
75°F (24°C)	3 Hours	5 Minutes	1 Year
90°F (32°C)	1.5 Hours	2 Minutes	1 Year
90°F (32°C)	NR	3 Minutes	NR

These times are based on a 1.5-2.0 mil (37.5-50 micron) dry film thickness for non-immersion. 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 #2 Thinner 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. Hypersensitive persons should wear protective clothing, gloves and use protective cream on face, hands and all exposed areas.

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.

CLEANUP & SAFETY

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. 24 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
Shipping Weight (Approximate)	2 Gallon Kit - 26 lbs. (12 kg) 10 Gallon Kit - 127 lbs. (58 kg)
Flash Point (Setaflash)	Part A: 74°F (23°C) Part B: 70°F (21°C)

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.