Carboguard 890 LT

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Cross-Linked Epoxy
Description	Highly chemical resistant epoxy mastic coating with exceptionally versatile uses in all industrial markets. Self-priming and suitable for application over most existing coatings, and tightly adherent to rust. Excellent for use as a primer or intermediate coat where low temperature cure is needed. Can be used in a variety of chemical environments. May be used as a self-priming or finish coat on exterior exposure if discoloration can be tolerated.
Features	• Excellent chemical resistance • Surface tolerant characteristics • Low-temperature cure formulation • Self-priming capability • Very good abrasion resistance • VOC compliant to current AIM regulations • Suitable for use in USDA inspected facilities
Color	Refer to Carboline Color Guide. Certain colors may require multiple coats for hiding. Due to the low temperature formulation, some colors will yellow or discolor more than normal in a short period of time. (Epoxies lose gloss, discolor and chalk in sunlight exposure.)
Finish	Gloss (70-85)
Primer	Self-priming. May be applied over inorganic zinc primers and other tightly adhering coatings. A mist coat may be required to minimize bubbling over inorganic zinc primers.
Dry Film Thickness	102 - 152 microns (4 - 6 mils) per coat Use 6-8 mils (152-203 microns) over tight rust or severe environments. 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 80% +/- 2%
Theoretical Coverage Rate	31.5 m²/l at 25 microns (1283 ft²/gal at 1.0 mils) 7.9 m²/l at 100 microns (321 ft²/gal at 4.0 mils) 5.2 m²/l at 150 microns (214 ft²/gal at 6.0 mils) Allow for loss in mixing and application.
VOC Values	**As Supplied** : 1.5 lbs/gal (180 g/l) Thinner 2 : 15 oz/gal=2.0lbs/gal (250 g/l) Thinner 33 : 14 oz/gal=2.0 lbs/gal (250 g/l) These are nominal values and may vary slightly with color.
Limitations	Do not apply over latex coatings. Not recommended for immersion projects. Do not use as a finish coat if severe discoloration is objectionable.
Topcoats	May be coated with Acrylics, Epoxies, or Polyurethanes depending on exposure and need.

SUBSTRATES & SURFACE PREPARATION

General	Surfaces must be clean and dry. Employ methods to remove dirt, dust, oil and all other contaminants that could interfere with adhesion of coating.

SUBSTRATES & SURFACE PREPARATION

Steel	Minimum SSPC-SP6 for most applications Profile: 1.5-3.0 mils (38-75 microns), SSPC-SP2 or SP3 are suitable cleaning methods for mild environments.
Galvanized Steel	Prime with specific Carboline primers as recommended by your Carboline Sales Representative.
Concrete or CMU	The concrete must be cured for 28 days (at 75°F/50% R.H.) or until the concrete reaches its designated compressive strength. Prepare and clean the surface in accordance with SSPC-SP13/ NACE No. 6 guidelines. Test for moisture by conducting a plastic sheet testing in accordance with ASTM D4263.
Drywall & Plaster	Joint compound and plaster should be fully cured prior to coating application.
Previously Painted Surfaces	Lightly sand or abrade to roughen surface and degloss the surface. Existing paint must attain a minimum 3B rating in accordance with ASTM D3359 “X-Scribe” adhesion test.

MIXING & THINNING

Mixing	Power mix separately, then combine and power mix. DO NOT MIX PARTIAL KITS.
Thinning	Spray: Up to 13 oz/gal with Thinner 2 Brush or Roller: Up to 14 oz/gal with Thinner 33 Thinner 33 can be used for spray in hot/windy conditions. Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied. *See VOC values for thinning limits.
Ratio	1:1 Ratio (A to B)
Pot Life	2 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)	This is a high solids coating and may require adjustments in spray techniques. Wet film thickness is easily and quickly achieved.
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.
Airless Spray	Pump Ratio: 30:1 (min.)* GPM Output: 3.0 (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 rerolling. For best results, tie-in within 10 minutes at 75°F (24°C).

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Brush	Use a medium bristle brush.
Roller	Use a short-nap synthetic roller cover with phenolic core. Note: WIWA is a registered trademark of the Wilhelm Wagner GmbH & Co. KG

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	4°C (40°F)	2°C (35°F)	2°C (35°F)	0%
Maximum	32°C (90°F)	52°C (125°F)	43°C (110°F)	90%

This product simply requires the substrate temperature to be above the dew point.

CURING SCHEDULE

Surface Temp.	Dry to Handle	Dry to Recoat & Topcoat w/ other finishes	Dry to Touch	Final Cure General
2°C (35°F)	18 Hours	20 Hours	5 Hours	7 Days
4°C (40°F)	15.5 Hours	16 Hours	4.5 Hours	5 Days
10°C (50°F)	6.5 Hours	12 Hours	3.5 Hours	3 Days
16°C (60°F)	5 Hours	8 Hours	2 Hours	2 Days
24°C (75°F)	2 Hours	4 Hours	1.5 Hours	24 Hours
32°C (90°F)	1.5 Hours	2 Hours	1 Hour	16 Hours

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. **Maximum recoat/topcoat times are 30 days for epoxies and 90 days for polyurethanes at 75°F (24°C).** 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.

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. 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. User should test and monitor exposure levels to insure all personnel are below guidelines.

PACKAGING, HANDLING & STORAGE

Shelf Life	Part A: Min. 36 months at 75°F (24°C) Part B: Min. 15 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)	2 Gallon Kit - 29 lbs (13kg) 10 Gallon Kit - 145 lbs (66 kg)
Storage Temperature & Humidity	40° - 110°F (4° - 43°C) 0-100% Relative Humidity
Flash Point (Setaflash)	89°F (32°C) for Part A 73°F (23°C) for Part B 85°F (29°C) for mixed
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.