

SELECTION & SPECIFICATION DATA

Generic Type	Solvent Based Organic Zinc-Rich Epoxy
Description	A high-solids, zinc-filled epoxy primer for corrosion protection of structural steel in highly corrosive environments including offshore, marine and industrial. This low VOC, HAPs compliant primer has quick cure-to-topcoat characteristics for in-shop applications and quick turnaround capabilities for the field. It has excellent adhesion and undercutting resistance and is outstanding for use as a corrosion resistant primer for a variety of applications.
Features	<ul style="list-style-type: none"> • Protects steel galvanically • Outstanding application properties • Cures at low temperatures down to 2°C • Tough and abrasion resistant film • Wide use in severe industrial or marine environments
Colour	Grey, and Green
Finish	Matte
Primer	Self Priming
Dry Film Thickness	51 - 152 microns (2 - 6 mils) per coat Dry film thickness in excess of 200 microns per coat is not recommended.
Total Zinc Content in Dry Film	84% by weight
Solids Content	By Volume 64% +/- 2%
Theoretical Coverage Rate	25.2 m ² at 25 microns (1027 ft ² at 1.0 mils) 12.6 m ² at 50 microns (513 ft ² at 2.0 mils) 4.2 m ² at 150 microns (171 ft ² at 6.0 mils) Allow for loss in mixing and application.
VOC Values	As Supplied : 318 g/L These are nominal values.
Dry Temp. Resistance	Continuous: 177°C (350°F) Non-Continuous: 204°C (400°F)
Topcoats	Can be top coated with epoxies, polyurethanes, acrylics and others as recommended by your Carboline sales representative.

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-SP6 (AS 1627.4 Sa 2) with a 25-75 micron surface profile. SSPC-SP 3 (AS 1627.2 St 3) for touch-up.

Carbozinc 858 (3K)

PRODUCT DATA SHEET



MIXING & THINNING

Mixing	Power mix Part A completely. Then slowly sift in the zinc filler under agitation. Power mix Part B separately and add slowly to the mixture. Pour mixture through a 30 mesh screen. DO NOT MIX PARTIAL KITS. Tip: Sifting zinc through a window screen will aid in the mixing process by breaking up or catching dry zinc lumps.
Thinning	Normally not required but may be thinned up to 10% with Thinner #2 or Thinner #76. In hot or windy conditions, may be thinned up to 10% with Thinner #33. Use of thinners other than those supplied by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.
Ratio	<u>7.06 Litre Kit</u> Part A: 3.66 litres Part B: 1.4 litres Zinc Filler: 2x 7 Kg (1L) bags
Pot Life	4 hours at 24°C and less at higher temperatures. Pot life ends when coating loses body and begins to sag.

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. Keep material under mild agitation during application.
Conventional Spray	Agitated 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: 0.017-0.023" Output PSI: 2000-2200 Filter Size: 60 mesh *PTFE packings are recommended and available from the pump manufacturer.
Brush	For small areas and touch-up only. Use medium bristle brush and avoid rebrushing.
Roller	Not recommended.

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)	49°C (120°F)	43°C (110°F)	95%

Industry standards are for the substrate temperatures to be 5°F (3°C) above the dew point. 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 Topcoat	Final Cure
2°C (35°F)	8 Hours	10 Hours
10°C (50°F)	5 Hours	6 Hours
24°C (75°F)	2 Hours	3 Hours
32°C (90°F)	1 Hour	1 Hour

These times are based on a 50% relative humidity and 3.0 mil (75 micron) 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. Dry to touch at 75°F (24°C) is 30 minutes.

Specific topcoat products can be used in a much shorter re-coat interval. Consult Carboline for recommendations and test results.

Maximum Recoat: Unlimited. Must have a clean, dry surface for topcoating. "Loose" chalk or salts must be removed in accordance with good painting practice. Consult Carboline Technical Service for specific information.

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.
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. In addition to ensuring proper ventilation, appropriate respirators must be used by all application personnel.
Caution	This product contains flammable solvents. Keep away from sparks and open flames. All electrical equipment and installations should be made and rounded 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: Min. 24 months at 24°C Part B: Min. 24 months at 24°C Zinc Filler: 24 months at 24°C *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
Shipping Weight (Approximate)	7.06 Litre Kit - 21 Kg
Storage Temperature & Humidity	4° - 43°C 0-95% Relative Humidity
Flash Point (Setaflash)	Part A: 14°C Part B: 19°C Zinc Filler: NA
Storage	Store Indoors.

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PRODUCT DATA SHEET



WARRANTY

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