

SELECTION & SPECIFICATION DATA

Generic Type	Water Based Organic Zinc-Rich Epoxy
Description	Low VOC, zinc-rich epoxy primer for steel substrates that provides excellent corrosion resistance. Carbozinc 585 has very low VOC values, is low odor and easy to apply. It can be used in virtually all industrial markets.
Features	<ul style="list-style-type: none"> • Meets Class B slip co-efficient and creep testing criteria for use on faying surfaces up to 3 mils dry (See "Dry Film Thickness Section") • Excellent corrosion resistance • Excellent adhesion • Protects against undercutting corrosion • Applies easily by spray methods • Meets SSPC Paint 20; Level 1 • Excellent touch-up primer by brush or roller for small areas. • VOC compliant and low odor • Unlimited recoat
Color	Green (0300)
Finish	Flat
Primer	Self Priming
Dry Film Thickness	3 - 5 mils (76 - 127 microns) per coat Dry film thickness of 2-3 mils are acceptable for performance on faying surfaces to maintain Class B certification. Thickness in excess of 10.0 mils (250 microns) per coat is not recommended.
Total Zinc Dust in Dry Film	By Weight: 85%
Solids Content	By Volume 55% +/- 2%
Theoretical Coverage Rate	882 ft ² /gal at 1.0 mils (21.7 m ² /l at 25 microns) 294 ft ² /gal at 3.0 mils (7.2 m ² /l at 75 microns) 176 ft ² /gal at 5.0 mils (4.3 m ² /l at 125 microns) Allow for loss in mixing and application.
VOC Values	As Supplied : 0.36 lbs/gal (43 g/l) EPA Method 24: 0.59 lbs/gal (70 g/l) Thinned 16 oz/gal w/water: 0.59 lbs/gal (70 g/l) These are nominal values.
Dry Temp. Resistance	Continuous: 250°F (121°C)
Topcoats	Can be topcoated 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.
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Carbozinc 585

PRODUCT DATA SHEET



SUBSTRATES & SURFACE PREPARATION

Steel	SSPC-SP6 minimum with a 1.0-3.0 mil (25-75 micron) nominal surface profile. SSPC-SP2 or SP3 for touch-up. Test reports and additional data available upon written request.
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MIXING & THINNING

Mixing	<ul style="list-style-type: none">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 30 mesh 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 15 oz/gal (12%) with clean potable water.
Ratio	<u>0.80 Gal. Kit</u> Part A: 0.47 gallons Part B: 0.10 gallons Zinc Filler: 14.6 lbs <u>4.00 Gal Kit</u> Part A: 2.35 gallons Part B: 0.5 gallon Zinc Filler: 73 lbs.
Pot Life	4 Hours at 75°F (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)	Keep material under mild agitation during application. The following spray equipment has been found suitable and is available from WIWA or other equipment manufacturers. WIWA is a registered trademark of the Wilhelm Wagner GmbH & Co. KG
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 & Roller (General)	For small areas and touch-up only. Preferred method for large areas is spray application.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	50°F (10°C)	50°F (10°C)	50°F (10°C)	20%
Maximum	95°F (35°C)	110°F (43°C)	110°F (43°C)	90%

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 Handle	Dry to Topcoat
50°F (10°C)	4 Hours	8 Hours
75°F (24°C)	1 Hour	4 Hours
90°F (32°C)	30 Minutes	3 Hours

These times are based on a 4.0 mil (100 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. **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 clean potable water followed by suitable solvent to dry equipment. If partially dry use Thinner #2. 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.

PACKAGING, HANDLING & STORAGE

Shelf Life	Part A: Min. 24 months at 75°F (24°C) Part B: Min. 24 months at 75°F (24°C) Zinc Filler: 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). 0-95% Relative Humidity
Storage	Store Indoors.
Shipping Weight (Approximate)	0.80 Gallon Kit - 22 lbs (10 kg) 4.00 Gallon Kit - 105 lbs (48 kg)

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PACKAGING, HANDLING & STORAGE

Flash Point (Setaflash)	Part A: >200°F (93°C)
	Part B: >200°F (93°C)
	Zinc Filler: NA

WARRANTY

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