

## SELECTION & SPECIFICATION DATA

<b>Generic Type</b>	Zinc-Rich Epoxy
<b>Description</b>	A high solids, organic zinc primer with high zinc loading for the protection of steel substrates in salt or weathering environments. Used as a maintenance or general use primer over commercially blasted steel. Used for structural steel and equipment in pulp and paper, petrochemical, chemical processing and other severe environments with appropriate topcoat.
<b>Features</b>	<ul style="list-style-type: none"> <li>• Excellent application properties</li> <li>• Low temperature cure down to 35°F (2°C)</li> <li>• 90% zinc dust in the dry film</li> <li>• Meets Class B slip co-efficient and creep testing criteria for use on faying surfaces</li> <li>• Quick topcoatability</li> <li>• Meets most VOC regulations</li> <li>• Excellent adhesion</li> <li>• Protects against undercutting corrosion</li> </ul>
<b>Color</b>	Green (0300)
<b>Finish</b>	Flat
<b>Primer</b>	Self Priming
<b>Dry Film Thickness</b>	3 - 5 mils (76 - 127 microns) per coat Dry film thickness in excess of 8.0 mils (200 microns) per coat is not recommended. Excessive film thickness may increase damage during shipping or erection. Maximum DFT for Class B slip is 6 mils.
<b>Total Zinc Dust in Dry Film</b>	By Weight: 90%
<b>Solids Content</b>	By Volume 61% +/- 2%
<b>Theoretical Coverage Rate</b>	978 ft <sup>2</sup> /gal at 1.0 mils (24.0 m <sup>2</sup> /l at 25 microns) 326 ft <sup>2</sup> /gal at 3.0 mils (8.0 m <sup>2</sup> /l at 75 microns) 196 ft <sup>2</sup> /gal at 5.0 mils (4.8 m <sup>2</sup> /l at 125 microns) Allow for loss in mixing and application.
<b>VOC Value(s)</b>	As Supplied: 2.72 lbs./gal (324 g/l) Thinned: 8 oz/gal w/ #15: 2.90 lbs./gal (355 g/l) These are nominal values.
<b>Dry Temp. Resistance</b>	Continuous: 400°F (204°C) Non-Continuous: 425°F (218°C)
<b>Topcoats</b>	Can be topcoated with Epoxies, Polyurethanes, Acrylics and others as recommended by your Carboline sales representative. Under certain conditions, a mist coat is required to minimize topcoat bubbling.

## SUBSTRATES & SURFACE PREPARATION

<b>General</b>	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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### SUBSTRATES & SURFACE PREPARATION

**Steel** | SSPC-SP6 with a 1.0-3.0 mil (25-75 micron) surface profile.  
SSPC-SP2 or SP3 for touch-up.

### 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 screen will aid in mixing process by breaking up or catching dry zinc lumps.

**Thinning** | Normally not required but may be thinned up to 8 oz/gal (6%) with Thinner 15. In hot or windy conditions, may be thinned up to 13 oz/gal 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** | 3.2 Gal. Kit:  
Part A: 1 gallon  
Part B: 1 gallon  
Zinc Filler: 73 lbs  
0.64 Gal. Kit:  
Part A: 0.20 gallon  
Part B: 0.20 gallon  
Zinc Filler: 14.6 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)** | The following spray equipment has been found suitable and is available from various 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: 2500-2700  
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	40°F (4°C)	35°F (2°C)	35°F (2°C)	0%
Maximum	90°F (32°C)	120°F (49°C)	110°F (43°C)	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.

## CURING SCHEDULE

Surface Temp.	Dry to Handle	Dry to Topcoat
35°F (2°C)	8 Hours	10 Hours
50°F (10°C)	3 Hours	6 Hours
75°F (24°C)	1.5 Hours	3 Hours
100°F (38°C)	1 Hour	1 Hour

These times are based on a 3-5 mils 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

<b>Cleanup</b>	Use Thinner 2 or Acetone. In case of spillage, absorb and dispose of in accordance with local applicable regulations.
<b>Safety</b>	Read and follow all caution statements on this product data sheet and on the SDS for this product. Employ normal workmanlike safety precautions.
<b>Ventilation</b>	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. 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, workmen should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

## PACKAGING, HANDLING & STORAGE

<b>Shelf Life</b>	Part A: Min. 24 months at 75°F (24°C) Part B: Min. 24 months at 75°F (24°C) Part C: 24 months at 75°F (24°C)  *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
<b>Storage Temperature &amp; Humidity</b>	40°– 110°F (4°– 43°C). 0-95% Relative Humidity
<b>Storage</b>	Store Indoors.

# Carbozinc<sup>®</sup> 861

## PRODUCT DATA SHEET



## PACKAGING, HANDLING & STORAGE

**Shipping Weight (Approximate)** | 3.2 Gallon Kit: 95 lbs (35 kg)

**Flash Point (Setaflash)** | Part A: 49°F (9°C)  
Part B: 38°F (3°C)  
Zinc Filler: NA

## 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 Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance, injuries or damages resulting from use. Carbolines sole obligation, if any, is to replace or refund the purchase price of the Carboline product(s) proven to be defective, at Carbolines option. Carboline shall not be liable for any loss or damage. 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.