

## Selection & Specification Data

<b>Generic Type</b>	Two-component, zinc-rich epoxy primer
<b>Description</b>	A two-component, high solids, zinc rich epoxy primer formulated for the protection of properly prepared steel substrates. 859 EZ2 can be applied by conventional or airless spray. Recommended where a high performance, highly corrosion resistant zinc primer is desired. Typical applications include structural steel, tanks, piping, equipment and other miscellaneous parts in industrial or architectural projects.
<b>Features</b>	<ul style="list-style-type: none"> <li>• Excellent application properties</li> <li>• Tough abrasion resistant film</li> <li>• Excellent adhesion &amp; undercutting resistance</li> <li>• Superior corrosion resistance</li> <li>• Meets VOC (Volatile Organic Content) regulations, &lt;2.8 lbs./gal</li> <li>• Fast drying for recoat</li> <li>• Meets or exceeds SSPC Paint System 20 Level 3 (2002)</li> </ul>
<b>Color</b>	Green (0300)
<b>Finish</b>	Flat
<b>Dry Film Thickness</b>	2.0 - 3.0 mils (51 - 76 microns) per coat
	For more severe environments 859 EZ may be applied at 4 mils (100 microns) dry film thickness.
<b>Solids Content</b>	By Volume 64% +/- 2% Zinc content in dry film is 75% by weight
<b>Theoretical Coverage Rate</b>	1027 ft <sup>2</sup> at 1.0 mils (25.2 m <sup>2</sup> /l at 25 microns) 513 ft <sup>2</sup> at 2.0 mils (12.6 m <sup>2</sup> /l at 50 microns) 342 ft <sup>2</sup> at 3.0 mils (8.4 m <sup>2</sup> /l at 75 microns)
	Allow for loss in mixing and application.
<b>VOC Values</b>	Thinner 2 6.5 oz/gal (5%): 2.99 lbs/gal (359 g/l) Thinner 33 3.8 oz/gal (3%): 2.92 lbs/gal (350 g/l) As Supplied 2.79 lbs/gal (334 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>	May be coated with Epoxies or Polyurethanes depending on exposure and need.

## 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. Use Thinner #2 or Carboline Surface Cleaner #3 in accordance with SSPC-SP1.
<b>Steel</b>	Abrasive blast to a commercial finish in accordance with SSPC-SP6 and obtain a 1½ - 2 mil (38-50 micron) blast profile. SSPC-SP2 or SP3 with a roughened surface for touch-up.

## Mixing & Thinning

<b>Mixing</b>	For plural component application equipment follow the equipment manufacturer's instructions. Power mix each component separately prior to using plural component spray equipment or batch mixing. THIS PRODUCT IS MOISTURE SENSITIVE. AVOID MOISTURE CONTAMINATION. DO NOT MIX PARTIAL KITS. Pail agitators are recommended. Keep Part A material under mild agitation during plural spray application. Keep batch-mixed material under mild agitation during conventional air or airless spray application.
<b>Thinning</b>	Normally not required for plural heated application. For batch mix applications, it may be thinned up to 6.5 oz/gal (5%) with Thinner #2. For hotter than normal application conditions it may be thinned 3.8 oz/gal with Thinner #33. Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.
<b>Ratio</b>	4:1 (A to B)
<b>Pot Life</b>	3 Hours at 75°F (24°C) unthinned. Pot life decreases at higher temperatures. Pot life ends when coating becomes too viscous to use. This product is moisture sensitive. Avoid moisture contamination.

## 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.

<b>Spray Application (General)</b>	The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.
<b>Conventional Spray</b>	Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, .070" I.D. fluid tip and appropriate air cap.
<b>Airless Spray</b>	<p><b>Non Plural</b></p> <p>Pump Ratio: 30:1 (min.) GPM Output: 3.0 (min.) Material Hose: 3/8" I.D. (min.) Tip Size: .015-.019" Output PSI: 2100-2300 Filter Size: 30-60 mesh Teflon packings are recommended and available from the pump manufacturer.</p> <p><b>Heated, plural component</b> Consult Carboline Technical Service</p>

<b>Brush</b>	Respray or brush. Brushing recommended only for touch up of small areas. Use medium, natural bristle brush applying with full strokes. Avoid excessive re-brushing.
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# Carbozinc<sup>®</sup> 859 EZ2

## 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%

Do not apply when the surface temperature is less than 5°F (3°C) 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 thinning and application techniques may be required above or below normal application conditions.

## Curing Schedule

Surface Temp. & 50% Relative Humidity	Dry to Handle	Dry to Topcoat	Dry to Touch
35 °F (2 °C)	6 Hours	6 Hours	3 Hours
50 °F (10 °C)	3 Hours	4 Hours	1.0 Hour
75 °F (24 °C)	2 Hours	2 Hours	30.0 Minutes
90 °F (32 °C)	1.0 Hour	1.0 Hour	15.0 Minutes
130 °F (54 °C)	30.0 Minutes	30.0 Minutes	10.0 Minutes

These times are based on a 2.0-3.0 mils (50-75 microns) 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. **Note:** Product may be force cured. Can be topcoated wet-on-wet with Carbothane 8812, 8815, 8820, 8832 and 8836. Maximum recoat time is unlimited. Must have a clean, dry surface free of chalk, zinc, salts, etc. per typical good painting practices.

## 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 MSDS 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.
<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.

## Packaging, Handling & Storage

<b>Shelf Life</b>	Part A: 12 months at 75°F (24°C) Part B: Min. 12 months at 75°F (24°C)  *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
<b>Shipping Weight (Approximate)</b>	1 Gallon Kit - 25 lbs. (kg) 3.75 Gallon Kit - 82 lbs. (kg) 15 Gallon Kit - 335 lbs. (kg) 150 Gallon Kit - 1,226 lbs. (kg)  <u>5 Gallons</u> Thinner #2: 40 lbs. (kg) Thinner 33: 40 lbs. (kg) <u>50 Gallon Drum</u> Thinner #2: 405 lbs. (kg) Thinner 33: 405 lbs. (kg)
<b>Storage Temperature &amp; Humidity</b>	40° - 95°F (4-35°C) 0-90% Relative Humidity

## Packaging, Handling & Storage

<b>Flash Point (Setaflash)</b>	Part A: 64°F (18°C) Part B: 69°F (20°C) Thinner #2: 24°F (-4.4) Thinner #33: 89°F (32°C)
<b>Storage</b>	Store Indoors.



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