

SELECTION & SPECIFICATION DATA

Generic Type	Two-component, zinc-rich epoxy primer
Description	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.
Features	<ul style="list-style-type: none"> • Excellent application properties • Tough abrasion resistant film • Excellent adhesion & undercutting resistance • Superior corrosion resistance • Meets VOC (Volatile Organic Content) regulations, <335 gms/litre • Fast drying for recoat • Meets or exceeds SSPC Paint System 20 Level 3 (2002) • Excellent film forming properties eliminate topcoat blistering • Excellent resistance to salting on weathering exposure
Colour	<ul style="list-style-type: none"> • Green • Grey (10 litre only)
Finish	Flat
Dry Film Thickness	50-75 microns per coat. For more severe environments, Carbozinc 859 EZ2 may be applied at 100 microns dry film thickness.
Solids Content	By Volume 70% +/- 2% (ASTM Method D 2697-7 days)
Theoretical Coverage Rates	14M ² per litre at 50µm DFT 9.3M ² per litre at 75µm DFT 7M ² per litre at 100µm DFT Allow for loss in mixing and application
Theoretical Coverage Rate	27.6 m ² at 25 microns (1123 ft ² at 1.0 mils) Allow for loss in mixing and application.
VOC Values	<p>As Supplied : 334 g/l Thinner 2 : 5%: 359 g/l Thinner 33 : 3%: 350 g/l</p> <p>These are nominal values.</p>
Dry Temp. Resistance	<p>Continuous: 82°C (180°F) Non-Continuous: 110°C (230°F)</p> <p>Discolouration will be observed above 82°C</p>
Topcoats	May be coated with Epoxies or Polyurethanes depending on exposure and need.

Carbozinc 859 EZ2

PRODUCT DATA SHEET



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. Use Thinner #2 or Carboline Surface Cleaner #3 in accordance with SSPC-SP1.
Steel	For optimum performance in Industrial environments, abrasive blast to SSPC-SP 10 (AS 1627.4 Sa 2½) and achieve a uniform jagged blast profile of 35µm (minimum) and up to 75µm. Interior Non critical exposures: Abrasive Blast SSPC SP6 (AS/NZS 1627.4 Class 2) and achieve a uniform jagged blast profile of 35µm (minimum) and up to 75µm. For site repairs and where abrasive blasting can not be employed, power tool clean all surfaces to SSPC-SP 3 (AS 1627.2 St 3).

MIXING & THINNING

Mixing	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. 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.
Thinning	Thinning is recommended to assist in film build control. Using a conventional pressure pot, with a 1.8mm (or less) tip, thinning up to 20% with Thinner #2 is recommended. For hotter than normal application conditions it may be carefully thinned with Thinner #33. Thinning is not normally not required for plural heated application. Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.
Ratio	4:1 (A to B)
Pot Life	3 Hours at 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.

Spray Application (General)	The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.
Conventional Spray	Pressure pot equipped with dual regulators, 9.5 mm (3/8") I.D. minimum material hose, 1.8 mm (.070") I.D. fluid tip and appropriate air cap.

APPLICATION EQUIPMENT GUIDELINES

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Airless Spray	<p>Non Plural Pump Ratio: 30:1 (min.) Output: 12 lts/minute (min.) Material Hose: 9.5 mm (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>Heated, plural component Consult Carboline Technical Service</p>
Brush	<p>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.</p>

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	4°C (39°F)	2°C (36°F)	2°C (36°F)	0%
Maximum	32°C (90°F)	49°C (120°F)	43°C (109°F)	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.	Dry to Handle	Dry to Topcoat	Dry to Touch
2°C (35°F)	6 Hours	6 Hours	3 Hours
10°C (50°F)	3 Hours	4 Hours	1 Hour
24°C (75°F)	2 Hours	2 Hours	30 Minutes
32°C (90°F)	1 Hour	1 Hour	15 Minutes
54°C (130°F)	30 Minutes	30 Minutes	10 Minutes

These times are based on a 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.

Maximum recoat time is unlimited. Must have a clean, dry surface free of chalk, zinc salts, etc. per typical good painting practices.

CLEANUP & SAFETY

Cleanup	<p>Use Thinner #2 or Acetone. In case of spillage, absorb and dispose of in accordance with local applicable regulations.</p>
Safety	<p>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.</p>

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CLEANUP & SAFETY

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 vapour 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.
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PACKAGING, HANDLING & STORAGE

Shelf Life	Part A: 12 months at 24°C Part B: Min. 12 months at 24°C *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
Storage Temperature & Humidity	4-35°C 0-90% Relative Humidity
Flash Point (Setaflash)	Part A: 18°C Part B: 20°C
Shipping Weight (Approximate)	5 litre Kit - 13 kg 10 litre Kit - 26 kg
Storage	Store Indoors.

WARRANTY

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