

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 salt and weathering environments. This high performance primer has quick cure-to-topcoat characteristics for in-shop applications and quick turnaround requirements in 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 • Complies with AS 3750.9:1994 Type 2 Organic Zinc Rich • Suitable for application over Wet Abrasive Blast cleaned surfaces • Protects against corrosion under-cutting • Tough and abrasion resistant film • Ideal for severe industrial or marine environments with appropriate topcoats
	<p>Approvals</p> <p>NORSOK M501, Rev. 5 System 1: ISO 20340: 1 ct Carbozinc 858 at 75 microns (under various intermediate & finish coatings)</p> <p>HSFG Bolted Structures: Meets Class A slip coefficient & creep testing criteria for use on faying surfaces</p> <p>Food Processing: NZ AsureQuality assessed & passed for food & beverage including dairy farm & factory non-incident contact. Ref: H3113</p>
Colour	Grey
Finish	Flat (0-10)
Primer	Self Priming
Dry Film Thickness	Typically applied at 75 microns. Dry film thickness in excess of 200 microns per coat is not recommended.
Solids Content	By Volume 64% +/- 2%
Zinc Content in Dry Film	By Weight 84% (min)
Theoretical Coverage Rate	25.2 m ² at 25 microns (1027 ft ² at 1.0 mils) Allow for loss in mixing and application.
VOC Values	As Supplied : 370 g/l
Dry Temp. Resistance	Continuous: 149°C (300°F) Non-Continuous: 200°C (392°F)
Topcoats	May be topcoated with acrylics, epoxies, polyurethanes and others as recommended by Carboline.

Carbozinc 858

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.
Steel	Abrasive Blast to minimum Commercial standard AS1627.4 Class 2 & 25-75 micron surface profile. Hand or power-tool clean for touch-up.

MIXING & THINNING

Mixing	Power mix both components separately and then combine while mixing. Pour mixture through a 30 mesh screen. DO NOT MIX PARTIAL KITS. Keep mixed material under slow agitation to keep zinc in suspension.
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	3:1 by volume (Part A : Part B)
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, 9.5 mm (3/8") I.D. minimum material hose, 1.8 mm (.070") I.D. fluid tip and appropriate air cap.
Airless Spray	Pump Ratio: 30:1 (minimum)* Output: 12 lts/minute (minimum) Material Hose: 9.5 mm (3/8") I.D. (minimum) 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 (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%

Industry standards are for the substrate temperatures to be 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 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 Hours	1 Hours

These times are based on a 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.

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 MSDS 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 24°C Part B: Min. 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)	4 Litre Kit - 12 kg 1 Litre Kit - 3 kg
Storage Temperature & Humidity	40° – 110°F (4° - 43°C). 0-95% Relative Humidity
Flash Point (Setflash)	Part A: 9°C Part B: 3°C

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PRODUCT DATA SHEET



PACKAGING, HANDLING & STORAGE

Storage | Store Indoors.

WARRANTY

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