

SELECTION & SPECIFICATION DATA

Generic Type	Zero VOC - Self-curing, water-based inorganic zinc primer.
Description	Carbozinc 11 WB is a water-based inorganic zinc rich primer that protects steel galvanically, eliminating subfilm corrosion. It meets VOC regulations while providing the proven performance of silicate zinc rich technology. It may be used as a primer under many different types of topcoats.
Features	<ul style="list-style-type: none"> • Excellent corrosion protection • High zinc loading per square foot • Zero VOC • Good resistance to salting • Fast curing, quick handling • Excellent application characteristics (less likely to pump packing or tip plugging) • Meets Class B slip coefficient* and creep testing criteria for use on faying surfaces. • Conforms to AS/NZS 3750.15 Type 3 <p>*Tested to Appendix A of the RCSC Specification for Structural Joints Using ASTM A325 or A490 Bolts</p>
Colour	Grey (0700)
Finish	Flat (0-10)
Dry Film Thickness	76 - 102 microns (3 - 4 mils) per coat Don't exceed 150 microns in a single coat
Total Zinc Content in Dry Film	83% by weight
Solids Content	By Volume 60% +/- 2% Measured in accordance with ASTM D 2697.
Theoretical Coverage Rate	23.6 m ² at 25 microns (962 ft ² at 1.0 mils) 7.9 m ² at 75 microns (321 ft ² at 3.0 mils) 5.9 m ² at 100 microns (241 ft ² at 4.0 mils) Allow for loss in mixing and application.
VOC Values	As Supplied : 0 g/l
Dry Temp. Resistance	Continuous: 399°C (750°F) Non-Continuous: 427°C (800°F)
Limitations	Do not directly exposure to acids or alkalis. Carbozinc 11 WB is an alkali silicate zinc rich primer. Like all water-based inorganic zinc primers trace amounts of alkalinity may remain within its film after cure. This alkaline residue can be detrimental to coating integrity when water is allowed to puddle on its surface. Use only steel storage, shipping and structural design configurations that prevent the puddling or trapping of water. Trace amounts of alkaline residue may concentrate in a drying puddle and result in high pH values that dissolve the coating film. Thorough rinsing (after full cure) reduces the likelihood or scope of the problem. The use of Carbozinc (WB) Neutralizing Solution helps to mitigate these problems.
Topcoats	May be coated with Acrylics or Epoxies depending on exposure and need. (Mist coats may be required to prevent topcoat bubbling.)

Carbozinc 11 WB

PRODUCT DATA SHEET



SUBSTRATES & SURFACE PREPARATION

General	Remove any oil or grease from the surface to be coated with clean rags soaked in Carboline Thinner #2 in accordance with AS 1627.1 (SSPC-SP1).
Steel	Abrasive blast to SSPC SP10 (AS1627.4 Class 2½) and achieve a uniform jagged blast profile of 35µm (minimum) and up to 75µm. An angular profile will provide maximum adhesion.

MIXING & THINNING

Mixing	Power mix base, then combine as in the proportions shown in "Ratio" below. Tip: Sifting zinc through a window screen will aid in the mixing process by breaking up or catching dry zinc lumps.
Thinning	Not normally required. In hot or windy conditions it may be necessary to thin with clean, potable water 10-20% to ensure the film has a wet edge during application; or 30% when recoating with itself.
Ratio	3.8 litre Kit <ul style="list-style-type: none">• Part A: 2.8 litres• Zinc Filler: 7 kg
Pot Life	8 hours at 24°C and less at higher. Pot life ends when the coating becomes too thick to use.

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.

Conventional Spray	Conventional spray is the preferred method of application for Carbozinc 11 WB. Pressure pot equipped with dual regulators, 9.5 mm (3/8") I.D. minimum material hose, with a maximum length of 15 metres, 1.8 mm (0.070") I.D. fluid tip and appropriate air cap.
Airless Spray	Modified spray guns recommended below will eliminate spray tails when airless is used. Pump Ratio: 30:1 (minimum) GPM Output: 12 litres / minute (minimum) Material Hose: 9.5 mm I.D. (minimum) Tip Size: 0.017-0.019" Output PSI: 1750-2400 Spray Gun: Graco Model 510 mod B.T. Wiwa Model 500 F (1/2") Filter Size: 60 mesh Teflon packings are recommended and available from the pump manufacturer. Prior to use, flush all equipment with Thinner #21 or Thinner #109 followed by clean potable water. Keep material under mild agitation during application. If spraying stops for more than 10 minutes, recirculate the material remaining in the spray line. Do not leave mixed primer in the hoses during stoppages.
Brush & Roller (General)	Brush for touch-up only. Avoid excessive rebrushing. Use of a roller is not recommended.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	10°C (50°F)	4°C (40°F)	4°C (40°F)	0%
Maximum	35°C (95°F)	60°C (140°F)	43°C (110°F)	90%

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
24°C (75°F)	5 Minutes	18 Hours

Drying and Curing should take place in dry well ventilated moving air conditions

These times are based on a 75 micron dry film thickness. Higher film thickness, insufficient ventilation, high humidity, or cooler temperatures will require longer cure times and could result in premature failure.

Excessive humidity or condensation on the surface during curing can interfere with the cure. Unlike solvent-based inorganic zincs, water-misting the surface will not speed the cure. DO NOT water-mist Carbozinc 11 WB during initial cure cycle. Any loose salt that appears on the zinc surface as a result of prolonged weathering exposure must be removed prior to the application of additional coatings.

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CLEANUP & SAFETY

Cleanup	Use clean, potable water. 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. Hypersensitive persons should wear protective clothing, gloves and use protective cream on face, hands and all exposed areas.
Ventilation	When used as a tank lining or in enclosed areas, thorough air circulation must be used during and after application until the coating is cured. While this product has no organic solvents, any ventilation system should be capable of preventing the solvent vapour concentration from reaching the lower explosion limit for any solvents that may be used. User should test and monitor exposure levels to insure all personnel are below guidelines. If not sure or if not able to monitor levels, use suitable approved respirator.

PACKAGING, HANDLING & STORAGE

Shelf Life	Carbozinc 11WB: 24 months at 24°C Zinc Filler: 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)	3.8 litre Kit: 11.5 kg

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PACKAGING, HANDLING & STORAGE

Storage Temperature & Humidity	4-43°C
	0-90% Relative Humidity.
	Do not allow to freeze.

Flash Point (Setaflash)	None
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Storage	Store Indoors.
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WARRANTY

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