

Selection & Specification Data

Generic Type	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 plug) • Meets Class B slip coefficient* and creep testing criteria for use on faying surfaces. • Conforms to AS/NZS 3750.15 Type 3
	*Tested to Appendix A of the RCSC Specification for Structural Joints Using ASTM A325 or A490 Bolts
Gloss	Flat
Colour	Gray (0700)
Topcoats	May be topcoated with epoxies, acrylics, silicones, or others as recommended. (Mist coats over the CZ 11 WB may be required to prevent topcoat bubbling.)
Dry Film Thickness	75 - 100 microns per coat. Don't exceed 150 microns in a single coat.
Solids Content	59% by volume (Void Method)
Theoretical Coverage Rate	7.9 m ² /litre @75 microns (ASTM D2697)
Zinc Content by Weight	83% ± 1% in dry film
Mix Ratio	2.8:1 by volume (Part A : Zinc Filler)
VOC Values	As supplied or applied:0 g/l
Dry Temp. Resistance	Continuous: 400°C Non-Continuous: 427°C
Limitations	Do not directly expose to acids or caustics

Substrates & Surface Preparation

General	Remove any oil or grease from the surface to be coated with clean rags soaked in Carboline Thinner #2 or suitable equivalent in accordance with SSPC-SP1.
Steel	<p><u>Atmospheric Exposure:</u> Abrasive blast to a minimum commercial finish in accordance with AS 1627.4 Class 2 (SSPC-SP6) with a 25-75 microns blast profile. An angular profile will provide maximum adhesion.</p> <p><u>Immersion Service:</u> Abrasive blast to a minimum commercial finish in accordance with AS 1627.4 Class 2½ (SSPC-SP10) with a 25-75 microns blast profile. An angular profile will provide maximum adhesion.</p>

Application Equipment

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. **General Guidelines:**

Spray Application (General)	Remove any oil or grease from the surface to be coated with clean rags soaked in Carboline Thinner #2 or suitable alternative in accordance with SSPC-SP1.
Conventional Spray	<p><u>Conventional spray is the preferred method of application for Carbozinc 11 WB.</u> Agitated pressure pot equipped with dual regulators, 9mm (3/8") I.D. minimum material hose, with a maximum length of 16 metres, 1.8mm (0.070") I.D. fluid tip and appropriate air cap.</p>
Airless Spray	<p>Modified spray guns recommended below will eliminate spray tails when airless is used.</p> <p>*Pump Ratio: 30:1 minimum Output: 12 l/min. minimum Material Hose: 9mm (3/8") 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.</p> <p>Prior to use, flush all equipment with Thinner #21 or alcohol 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.</p>
Brush & Roller (General)	Brush for touch-up only. Avoid excessive re-brushing. Use of a roller is not recommended.

Carbozinc® 11 WB

Mixing & Thinning

Mixing Power mix base, then combine as follows below:
Tip - Sifting zinc through a window screen will aid in the mixing process by breaking up or catching dry zinc lumps.

Ratio **3.8 litre kit**
Part A: 2.8 litres
Zinc Filler: 7 kg

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.

Pot Life 8 hours at 24°C and less at higher temperature.
Pot life ends when the coating becomes too thick to use.

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 removing water vapour generated by drying and preventing the solvent vapour concentration from reaching the lower explosion limit for any solvents such as cleaning solvents etc in the area. 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 OSH approved respirator.

Caution All electrical equipment and installations should be made and grounded in accordance with the local Electric Code. In areas where explosion hazards exist, workmen should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

Application Conditions

Condition	Material	Surface	Ambient	Humidity
Normal	16°-30°C	10°-35°C	10°-35°C	40-85%
Minimum	10°C	4°C	4°C	0%
Maximum	35°C	60°C	43°C	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 & 50% RH	Dry to Handle	Dry to Topcoat
24°C	30 minutes	18 hours

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.

Special Instructions Concerning Cure, Shipping and Storage

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.

Packaging, Handling & Storage

Pack Sizes **3.8 litre kit**
Part A: 2.8 litres
Zinc Filler: 7 kg

Flash Point (Setaflash) None – non-flammable

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

Shelf Life Part A: 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.**

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