

SELECTION & SPECIFICATION DATA

Generic Type	Solvent Based Inorganic Zinc
Description	Time-tested corrosion resistant primer that protects steel galvanically in the harshest environments. Provides high-performance inorganic zinc protection on steel structures worldwide.
Features	<ul style="list-style-type: none"> • Rapid cure. Dry to handle in 45 minutes at 60°F (16°C) and 50% relative humidity. • Low temperature cure down to 0°F (-18°C). • Meets FDA requirements in gray color. • Available in ASTM D520, Type II zinc version. • Very good resistance to salting. • May be applied with standard airless or conventional spray equipment. • VOC compliant in certain areas • Lower zinc loading for economics. • VOC compliant for shop/fabricator use only.
Color	Green (0300); Gray (0700)
Finish	Flat
Primer	Self Priming
Dry Film Thickness	2 - 3 mils (51 - 76 microns) per coat Dry film thickness in excess of 6.0 mils (150 microns) per coat is not recommended.
Total Zinc Dust in Dry Film	By Weight: 79%
Solids Content	By Volume 53% +/- 2% Measured in accordance with ASTM D 2697.
Theoretical Coverage Rate	850 ft ² /gal at 1.0 mils (20.9 m ² /l at 25 microns) 425 ft ² /gal at 2.0 mils (10.4 m ² /l at 50 microns) 283 ft ² /gal at 3.0 mils (7.0 m ² /l at 75 microns) Allow for loss in mixing and application.
VOC Values	As Supplied 4.3 lbs./gal (515 g/l) Thinned: For use in fabrication shops only to remain in VOC compliance in accordance with EPA Standards. 7 oz/gal w/ Thinner 21: 4.5 lbs/gal (539 g/l) 5 oz/gal w/ Thinner 26: 4.5 lbs/gal (539 g/l) 5 oz/gal w/ Thinner 33: 4.5 lbs/gal (539 g/l)
Maximum Service Temperature	<u>Untopcoated</u> Continuous: 750°F (400°C) Non-continuous: 800°F (427°C) <u>With recommended high heat topcoats</u> Continuous: 1000°F (538°C) Non-continuous: 1200°F (649°C)

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Topcoats	May be coated with Acrylics, Epoxies, or Polyurethanes depending on exposure and need.
	High-Heat Silicones and others as recommended by your Carboline sales representative. Under certain conditions, a mist coat is required to minimize topcoat bubbling.

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	<u>Non-Immersion:</u> SSPC-SP6 and obtain a 1.0-3.0 mil (25-75 micron) angular blast profile.

MIXING & THINNING

Mixing	Power mix base, then combine and power mix as follows. Pour zinc filler very slowly into premixed base with continuous agitation. Mix until free of lumps. Pour mixture through a 30 mesh screen. DO NOT MIX PARTIAL KITS. Tip: Sifting zinc through a screen will aid in the mixing process by breaking up or catching dry zinc lumps.
Thinning	May be thinned up to 5 oz/gal (4%) with Thinner 26 for ambient and warm surfaces. For extremely warm or windy conditions, may be thinned up to 5 oz/gal (4%) with Thinner 33. In cool weather (below 40°F (4°C)), thin up to 7 oz/gal (6%) with Thinner 21. 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	4.6 Gallon Kit Carbozinc 11 / Carbozinc 11 FG Base: 3.75 gallons Zinc Filler: 50 lbs. 0.92 Gallon Kit Carbozinc 11 / Carbozinc 11 FG Base: 0.75 gallons Zinc Filler: 10 lbs.
Pot Life	8 Hours at 75°F (24°C) and less at higher temperatures. Pot life ends when coating becomes too viscous 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.

Spray Application (General)	The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco. 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 work stoppages.
Conventional Spray	Agitated pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, with a maximum length of 50', .070" I.D. fluid tip and appropriate air cap.

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Airless Spray	Pump Ratio: 30:1 (min.) GPM Output: 3.0 (min.) Material Hose: 3/8" I.D. (min.) Tip Size: .019-.023" Output PSI: 1500-2000 Filter Size: 60 mesh Teflon packings are recommended and available from the pump manufacturer.
Brush	For touch-up of areas less than one square foot only. Use medium bristle brush and avoid rebrushing.
Roller	Not recommended.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	0°F (-18°C)	0°F (-18°C)	0°F (-18°C)	30%
Minimum	130°F (54°C)	200°F (93°C)	130°F (54°C)	95%

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 Recoat & Topcoat w/ other finishes
0°F (-18°C)	4 Hours	7 Days
40°F (4°C)	1 Hour	48 Hours
60°F (16°C)	45 Minutes	24 Hours
80°F (27°C)	45 Minutes	18 Hours
100°F (38°C)	15 Minutes	16 Hours

These times are based on a 3.0-4.0 mil (75-100 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. Humidity levels below 50% will require longer cure times. **Notes:** Any salting that appears on the zinc surface as a result of prolonged weathering exposure must be removed prior to the application of additional coatings. Also, loose zinc must be removed from the cured film by rubbing with fiberglass screen wire if: 1) The Carbozinc 11 is to be used without a topcoat in immersion service and "zinc pick up" could be detrimental, or 2) When "dry spray/overspray" is evident on the cured film and a topcoat will be applied. For **accelerated curing or where the relative humidity is below 40%**, allow an initial 2-hour ambient cure. Follow 2 hour cure with water misting or steam to keep the coated surface wet for a minimum of 8 hours and until the coated surface achieves a "2H" pencil hardness per ASTM D3363.

CLEANUP & SAFETY

Cleanup	Use Thinner 21 or Isopropyl Alcohol. In case of spillage, absorb and dispose of in accordance with local applicable regulations.
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Carbozinc[®] 11 FG

PRODUCT DATA SHEET



CLEANUP & SAFETY

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. 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: 12 months at 75°F (24°C)
Part B: 24 months at 75°F (24°C)

*Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.

Storage Temperature & Humidity | 40° -100°F (4-38°C).
0-90% Relative Humidity

Shipping Weight (Approximate) | 4.6 Gallon Kit - 91 lbs. (41.3 kg)
0.92 Gallon Kit - 18 lbs. (8.2 kg)

Flash Point (Setaflash) | Carbozinc 11/Carbozinc 11 FG: 55 °F (13 °C)
Zinc Filler: NA

WARRANTY

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact Carboline Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of products. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. All of the trademarks referenced above are the property of Carboline International Corporation unless otherwise indicated.