

Selection & Specification Data

Generic Type	Solvent based inorganic zinc silicate
Description	CARBO ZINC 11 is an inorganic zinc rich primer Time-tested corrosion resistant primer that protects steel galvanically in harshest environments, for over 35 years, Carbozinc 11 (CZ11) has been the industry standard for high-performance inorganic zinc protection on steel structures world wide Provides excellent corrosion protection for bridges, chemical plants, refineries, paper mills, coastal and offshore exposures and for interiors of storage tanks containing fuels and organic solvents.
Features	<ul style="list-style-type: none"> • Excellent corrosion and weathering protection • High zinc loading per square foot • Meets ASTM Class "B" specification for structural hotted connections, slip coefficient and creep resistance <ul style="list-style-type: none"> ■ Very good resistance to salting • Meets AASHTO M300-90 Type 1 <ul style="list-style-type: none"> ■ Meets FDA requirement In gray color
Color	Gray (0700)
Topcoats	May be topcoated with epoxies, acrylics, silicones. vinyls, chlorinated rubbers of others as recommended. Do not topcoat with alkyds. NOTE: Under certain conditions a mist coat or tie coat is required to minimize topcoat bubbling
Dry Film Thickness	RECOMMENDED DRY FILM THICKNESS PER COAT: 3 mils (75 microns) Dry film thickness in excess of 6 mils (150 microns) per coat is not recommended.
Solids Content	THEORETICAL SOLIDS CONTENT OF MIXED MATERIAL;
	<u>By Weight</u>
	CARBO ZINC 11 79% ± 2%
	Percent total zinc in dry film 86% Minimum
Theoretical Coverage Rate	THEORETICAL COVERAGE PER MIXED GALLON:' 1000 mil sq. ft. (24.5 sq. m/t at 25 microns) 333 sq. ft. at 3 mils (8.2 sq. m/l at 75 microns)

As measured per NACE 6A181. Material losses during mixing and application will vary and must be taken into consideration when estimating job requirements.

VOC Values

The following are nominal values as tested per EPA Method 24: As supplied: 4.01 lbs/gal. (481 g/l)

Thinnad:

Thinner	Fluid Oz/Gal	Pounds/ Gallon	ami/1
21		4.28	513
26	15	4.37	524
33	15	4.39	526

Dry Temp. Resistance

(Non immersion) Untopcoated:

Continuous: 750°F (399°C)

Non-continuous: 800°F (427°C)

With recommended : Silicone topcoats:

Continuous: 1000°F(538-C)

Non-continuous: 1200°F (649°C)

Limitations

NOT RECOMMENDED FOR:

Exposure to acids or alkalis without a suitable topcoat, or for application over rust inhibitors
Do not topcoat with alkyds.

Substrates & Surface Preparation

General	SUBSTRATES: Apply over properly prepared steel.
Steel	<p>SURFACE PREPARATION: Remov all oilor grease from surface to be coated with Thinner #2 or Surface Cleaner #3 (refer to Surface Cleaner #3 Instructions) in accordance with SSPC-SP1.</p> <p>Steel:</p> <p>Immersion Service: Abrasive blast to a Near White Metal finish In accordance with SSPC-SP 10 and obtain a 1-3 mil (25-75 micron) blast profile. Welds must be continuous and ground smooth.</p> <p>Non-Immersion Service: Service: Abrasive blast to a Commercial finish in accordance with SSPC-SP 6 and obtain a 1-3 mil (25-75 microns) blast profile.</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)

The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Grace. Agitate the mixed material continuously during application. If spraying stops for more than 10 minutes, recirculate the material remaining in the spray line.

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Carbozinc® 11

Conventional Spray Agitated pressure pot equipped with dual regulator, 3/8" I.D. minimum material hose. 50' maximum material hose .070" I.D. fluid tip and appropriate air cap.

Airless Spray Pump Ratio: 30:1
Material Hose: 3/8" I.D. minimum material hose
Tip Size: .019"-. 023"
Outputs: 1500-2000
Filter size : 60Mesh
Teflon packings are recommended and are available from the manufacturer.

Brush For touch up of areas less than one square foot only. Use medium bristle brush. Avoid excessive rebrushing.

Roller Not recommended application by roller

Mixing & Thinning

Mixing Power mix base, then combine and power mix as follows:

Carbozinc 11 3.9 kg
base
Zinc filler 8.7 kg

Sift zinc filler slowly into premixed base with continuous agitation. Mix until free of lumps. Pour mixture through a 30 mesh screen. **DO NOT MIX partial kits. Keep material under mild agitation during application.**

Ratio **5 liter set**

Carbozinc 11 3.9 kg
base
Zinc filler 8.7 kg

Thinning May be thinned up to 15 oz/gal with Thinner #33 for ambient and warm surfaces.
For extremely warm or windy conditions, may be thinned up to 15 oz/gal with Thinner #26.
In cool weather (below 60°F (16°C)) thin up to 15 oz/gal with Thinner #21. Use of thinners other than those supplied or approved by Carboline may adversely affect product performance and void product warranty, whether express or Implied.

Pot Life Pot life end when coatings becomes too thick to use

Material temperature	Time
60°F (16°C)	12 hours
75°F (24°C)	8 hours
90°F (32°C)	4 hours

Cleanup & Safety

Cleanup CLEAN UP: Use Thinner #21 or Isopropyl alcohol

Safety Read and follow all caution statements on this product data sheet and on the MSDS for this product. Employ normal workmanlike safety precautions. Use adequate ventilation and wear gloves or use protective cream on face and hands if hypersensitive. Keep container closed when not in use.

Ventilation When used in enclosed area, 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 solvent

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 MSHA/NIOSH approved respirator

Caution This product contains flammable solvents. Keep away from sparks and open flames. All electrical equipment and installations should be made and grounded in accordance with the National Electric Code. In areas where explosion hazards exist, workmen should be required to use non-ferrous tools and wear conductive and non sparking shoes

READ AND FOLLOW ALL CAUTION STATEMENTS ON THIS PRODUCT OATA SHEET AND ON THE MATERIAL SAFETY DATA SHEET FOR THIS PRODUCT.

Curing Schedule

DRYING TIMES: These times are at the recommended dry film thickness of 2-3 mils (50-75 microns). Higher thickness of insufficient ventilation will lengthen cure times

Surface Temperature*	Handle	Topcoat	Immersion Service
0°F (-18°C)	4 hours	7 days	NR
40°F (4°C)	1 hour	46 hours	72 hours
60°F (16°C)	45 min.	24 hours	46 hours
8°F (27°C)	45 min.	18 hours	18 hours
100°F (38°C)	15 min.	16 hours	14 hours

*At 50% Relative Humidity or higher. Lower humidity will require longer cure times.

For shop applications or tank lining, If the relative humidity is too low, the curing time can be reduced by raising the relative humidity by steam or water spray on the coated surface after an initial dry time of 1 hour at 75T (24°C). **NOTES:**

- Any salting that appears on the zinc surface as a result of prolonged eathering exposure must be removed prior to the application of additional coatings.
- When CARBO ZINC 11 is used for immersion service untopcoated and where zinc pickup could be detrimental or when dry spray is evident and when CARBO ZINC 11 is to be topcoated, remove loose zinc after curing by rubbing with fiberglass screen wire.

Packaging, Handling & Storage

Shipping Weight (Approximate) Carbo Zinc 11 Base : 3.9 kg
Zinc Filler : 8.7 kg

Flash Point (Setflash) Carbo Zinc 11 Base : 55°F(13°C)

Storage Temperature & Humidity Store indoors.
Temperature: 40-100°F (4-38°C)
Humidity: 0-90%

Shelf Life When stored at 32°C
Carbo Zinc 11 Base : 4 months
Zinc Filler : 8 months

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



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