

SELECTION & SPECIFICATION DATA

Generic Type	Zinc-Rich Polyurethane
Description	A two component moisture cured organic zinc primer for protection of steel in salt and weathering environments. Excellent maintenance or general use zinc primer over commercially blasted steel. Use as a shop primer where quick recoat and cure times are required, for field touch-up of inorganic zinc primers and for structural steel, tank exteriors, pipes and equipment in conjunction with corrosion resistant topcoats.
Features	<ul style="list-style-type: none"> • Meets Class A slip co-efficient and creep testing criteria for use on faying surfaces • High level of zinc • Excellent adhesion and weathering • Excellent resistance to undercutting corrosion and abrasion resistant • Excellent application properties • May be topcoated in 4 hours at 75°F (24°C) • Tough durable film • Available in ASTM D520, Type II zinc version • VOC compliant to current AIM regulations
Color	Green (0300) only
Finish	Flat Consult Carboline Technical Service for specific topcoat recommendations.
Dry Film Thickness	76 microns (3 mils) per coat Dry film thickness in excess of 8.0 mils (200 microns) per coat is not recommended
Total Zinc Content in Dry Film	89% by weight
Solids Content	By Volume 60% +/- 2%
Theoretical Coverage Rate	23.6 m ² /l at 25 microns (962 ft ² /gal at 1.0 mils) 7.9 m ² /l at 75 microns (321 ft ² /gal at 3.0 mils) Allow for loss in mixing and application.
VOC Values	As Supplied : 2.8 lbs/gal (336 g/l) Thinner 10 : 19 oz/gal: 3.4 lbs/gal (407 g/l) These are nominal values.
Dry Temp. Resistance	Continuous: 93°C (200°F) Non-Continuous: 121°C (250°F)
Limitations	Not recommended for immersion service, acid, alkali, or severely corrosive environments without appropriate topcoats. Do not topcoat with amine-cured epoxies.
Topcoats	Consult Carboline Technical Service for specific topcoat recommendations

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 in accordance with SSPC-SP1.
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Carbozinc 621

PRODUCT DATA SHEET



SUBSTRATES & SURFACE PREPARATION

Steel | SSPC-SP6 with a 1.0-3.0 mil (25-75 micron) blast profile.

TYPICAL CHEMICAL RESISTANCE

Exposure	Fumes	Splashes & Spills
Acids	Not Recommended	Not Recommended
Alkalies	Not Recommended	Not Recommended
Salt	Excellent	Excellent
Solvents	Excellent	Excellent
Water	Excellent	Excellent

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 window screen will aid in the mixing process by breaking up or catching dry zinc lumps.
Thinning	May be thinned up to 19 oz/gal (15%) with Thinner #10. 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	<u>3.63 Gallon Kit</u> Part A: 2.37 gallons Zinc Filler: 73 lbs. Or Special Zinc Filler: 73 lbs. (ASTM Type II)
Pot Life	8 Hours at 75°F (24°C) and less at higher temperatures (i.e. 90°F has 4 hours pot life). Pot life ends when coating becomes too viscous to use. Higher temperatures, high humidities and other forms of moisture contamination will shorten pot life. Repeated dipping of a wet brush or roller into the material or using the material when its temperature is below the dew point will introduce moisture into the product and shorten pot life. This material is moisture sensitive. Moisture contamination will shorten working time and cause gelation.

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. Keep material under mild agitation during application.
Conventional Spray	Agitated pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, 0.070" I.D. fluid tip and appropriate air cap.

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.

Airless Spray | Pump Ratio: 30:1 (min.)*
GPM Output: 3.0 (min.)
Material Hose: 3/8" I.D. (min.)
Tip Size: 0.019-0.023"
Output PSI: 1500-2000
Filter Size: 60 mesh
*PTFE packings are recommended and available from the pump manufacturer.

Brush | Use a high quality medium bristle brush and avoid rebrushing.

Roller | Use a short nap roller and avoid excessive rerolling.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	2°C (35°F)	-1°C (30°F)	-1°C (30°F)	20%
Maximum	32°C (90°F)	38°C (100°F)	32°C (90°F)	80%

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. Special application techniques may be required above or below normal application conditions.

Note: Avoid application over visible droplets, puddles of water or ice formations. If applied over moisture, the coating may blister, bubble and/or exhibit poor adhesion.

CURING SCHEDULE

Surface Temp.	Dry to Handle	Dry to Topcoat	Cure for Service
-1°C (30°F)	8 Hours	8 Hours	48 Hours
10°C (50°F)	5 Hours	6 Hours	36 Hours
24°C (75°F)	4 Hours	4 Hours	24 Hours
38°C (100°F)	1 Hour	4 Hours	18 Hours

These times are based on 50% relative humidity and a 3.0 mil (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.

* When top coating with epoxies apply within 2-3 hours of the Carbozinc 621 application. If these times are exceeded surfaces must be abraded by hand sanding or sweep blasting prior to the application of any additional coats.

CLEANUP & SAFETY

Cleanup | Use Thinner #2 or xylol. 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 SDS 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 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.

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CLEANUP & SAFETY

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

PACKAGING, HANDLING & STORAGE

Shelf Life | Part A: Min. 24 months at 75°F (24°C)
Part B: 24 months at 75°F (24°C)
Special Zinc Filler (ASTM D520, Type II): 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° - 110°F (4°-43°C).
0-90% Relative Humidity

Storage | Store Indoors.

Shipping Weight (Approximate) | 0.72 Gallon Kit - 20 lbs. (9 kg)
3.63 Gallon Kit - 98 lbs. (45 kg)

Flash Point (Setaflash) | Part A: 114°F (46°C)
Zinc Filler: NA
Special 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, injuries or damages resulting from use. Carbolines sole obligation, if any, is to replace or refund the purchase price of the Carboline product(s) proven to be defective, at Carbolines option. Carboline shall not be liable for any loss or damage. 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.