Carbozinc® Finish

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Inorganic ethyl silicate
Description	Carbozinc Finish is a high solids, high build inorganic topcoat used to seal and protect inorganic zinc primers. The film exhibits exceptional toughness, high temperature resistance, and is available in a limited assortment of colors. Being inorganic, Carbozinc Finish provides exceptional weatherability and long-term performance. When used as finish over a permanent zinc primer, the system becomes an ultra-long lasting corrosion resistant system.
Features	• Outstanding weatherability • Long life performance • High temperature resistance • VOC compliant • Available in limited colors • Isocyanate free • Single package • Meets Class B Slip Co-Efficient Over Carbozinc 11 HS • Meets ISO 12944-6 C5 Medium over Carbozinc 11 HS
Color	Standard: Grey (1709)
Finish	Flat
Primer	Best when used over solvent-based inorganic zinc primers. Carbozinc 608 HB, Carbozinc 808, Carbozinc 858 Series, and Carbozinc 859 Series are suitable organic zinc primers for lower maximum dry temperature service and/or for repairing mechanical damage to the coating system that may result in bare metal being exposed. Refer to the specific organic zinc primer's Product Data Sheet for the maximum dry temperature resistance.
Dry Film Thickness	3 - 5 mils (76 - 127 microns) . Not to exceed 7 mils (175 microns)
Solids Content	By Volume 57% +/- 2%
Theoretical Coverage Rate	914 ft²/gal at 1.0 mils (22.4 m²/l at 25 microns) 305 ft²/gal at 3.0 mils (7.5 m²/l at 75 microns) 183 ft²/gal at 5.0 mils (4.5 m²/l at 125 microns) Allow for loss in mixing and application.
VOC Value(s)	Per EPA Method 24: 3.0 lbs/gal (360 g/l) mixed 12 oz/gal of Thinner 254: 3.43 lbs/gal (410 g/l) 6 oz/gal of Thinner 33: 3.21 lbs/gal (385 g/l) This product contains US EPA VOC-exempt solvent(s). This product may be thinned with alternate VOC exempt thinners. Consult Carboline Technical Service.
Dry Temp. Resistance	Continuous: 800°F (427°C) Non-Continuous: 1000°F (538°C) *Dry temperature resistance listed above is only applicable when applied over suitable solvent-based inorganic zinc primers.
Limitations	Do not use over water-based inorganic zinc-rich primers.

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. Refer to specific primer's Product Data Sheet for detailed requirements of the specified primer.
Steel	Apply over properly applied inorganic zinc primers. Allow at least 2 hour dry time on inorganic zinc primers prior to topcoating.

MIXING & THINNING

Mixing	Power mix to a uniform consistency.
Thinning	May be thinned up to 5% by volume with Carboline Thinner 33, or 5-10% with Thinner 254 for hot (85 °F [29 °C]) or windy conditions
Pot Life	Indefinite. Avoid moisture contamination.

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)	This is a high solids coating and may require adjustments in spray techniques. Wet film thickness is easily and quickly achieved. The following spray equipment has been found suitable and is available from equipment manufacturers.
Conventional Spray	Conventional pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, and 0.043" to 0.070" fluid tip and appropriate air cap.
Airless Spray	Pump Ratio: 30:1 (min.) Volume Output: 2.5 gpm min. - 11.5 l/min min. Material Hose: ½" I.D. min. - 12.5mm min. Tip Size: 0.017-0.021" - 0.43-0.53mm Output Pressure: 2100-2500 psi - 135-170kg/cm²
Brush	For touch up use only. Use medium bristle brush and avoid rebrushing. Two coats may be required to obtain desired thickness and appearance. For best results tie-in within 5 min.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	40°F (4°C)	40°F (4°C)	40°F (4°C)	30%
Maximum	90°F (32°C)	110°F (43°C)	110°F (43°C)	95%

Industry standards are for substrate temperatures during application to be 5 °F (3 °C) above the dew point. This product requires moisture to complete its final cure. Use water mist if humidity is below minimums.

CURING SCHEDULE

Surface Temp.	Dry to Touch	Dry to Handle
60°F (16°C)	30 Minutes	4 Hours
75°F (24°C)	15 Minutes	2 Hours
90°F (32°C)	10 Minutes	1 Hour

These times are based on recommended coverage rates. Curing under low humidity conditions will extend times. Carbozinc inorganic zinc primers may be topcoated early with this inorganic finish. Consult Carboline Technical Service.

CLEANUP & SAFETY

Cleanup	Use Thinner 2 or Acetone. 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. Use adequate ventilation. Keep container closed when not in use.
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. 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 supplied air respirator.

PACKAGING, HANDLING & STORAGE

Shelf Life	6 months at 76 °F (24 °C) *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
Storage Temperature & Humidity	40-90 °F (4-32 °C) 0-90% Relative Humidity
Storage	Store Indoors. KEEP DRY.
Shipping Weight (Approximate)	1 Gallon Kit - 13 lbs (kg) 5 Gallon Kit - 65 lbs (kg)
Flash Point (Setaflash)	Carbozinc Finish: 66 °F (19 °C) Thinner 33: 75 °F (24 °C) Thinner 2: 23 °F (-5 °C)

WARRANTY

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