Carbozinc 665

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Two-component, zinc-rich epoxy primer
Description	A two-component, high solids, economical zinc rich epoxy primer formulated for the protection of properly prepared steel substrates. This product can be applied by conventional, and airless spray.
Features	• Excellent application properties • Excellent adhesion & undercutting resistance • Fast drying for quick recoating • Complies with SSPC Paint 20 (Type II)
Color	Grey (0700)
Finish	Flat
Dry Film Thickness	51 - 76 microns (2 - 3 mils) per coat For more severe environments CZ 655 may be applied at 4 mils (100 microns) dry film thickness.
Solids Content	By Volume 60% +/- 2%
Theoretical Coverage Rate	23.6 m²/l at 25 microns (962 ft²/gal at 1.0 mils) 11.8 m²/l at 50 microns (481 ft²/gal at 2.0 mils) 7.9 m²/l at 75 microns (321 ft²/gal at 3.0 mils) Allow for loss in mixing and application.
VOC Value(s)	As supplied: 360 g/l
Dry Temp. Resistance	Continuous: 149°C (300°F) Non-Continuous: 200°C (392°F)
Topcoats	May be coated with epoxies or polyurethanes depending on exposure and need.

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. Use Thinner #2 or Carboline Surface Cleaner #3 in accordance with SSPC-SP1.
Steel	Abrasive blast to a commercial finish in accordance with SSPC-SP6 and obtain a 1½ - 2 mil (37.5-50micron) blast profile.
Phosphatized Steel	Apply directly to dry, properly phosphatized substrate. Perform adhesion tests to insure proper, uniform and acceptable adhesion direct to phosphatized metal substrate.

MIXING & THINNING

Mixing	For plural component application equipment follow the equipment manufacturer's instructions. Power mix each component separately prior to using plural component spray equipment or batch mixing. THIS PRODUCT IS MOISTURE SENSITIVE. AVOID MOISTURE CONTAMINATION. DO NOT MIX PARTIAL KITS.

MIXING & THINNING

Thinning	Normally not required for plural heated application. For batch mix applications, it may be thinned up to 6.5 oz/gal (5%) with Thinner #2. For hotter than normal application conditions it may be thinned 3.8 oz/gal with Thinner #33. 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	4:1 (A:B)
Pot Life	3 Hours at 75°F (24°C) unthinned. Pot life decreases at higher temperatures. Pot life ends when coating becomes too viscous to use. This product is moisture sensitive. 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	The following spray equipment has been found suitable and is available from equipment manufacturers.
Conventional Spray	Pressure pot equipped with dual regulators, 3/8” I.D. minimum material hose, .070” I.D. fluid tip and appropriate air cap.
Airless Spray	Non-Plural Pump Ratio: 30:1 (min.) GPM Output: 3.0 (min.) Material Hose: 3/8” I.D. (min.) Tip Size: .015-.019” Output PSI: 2100-2300 Filter Size: 30-60 mesh ***Teflon packings are recommended and available from the pump manufacturer** Heated, Plural Component Pump Ratio: Graco 35:1 (min) GPM Output: 3.5 (min) Lower Units: Two (2) #0, One (1) #5 Heaters: One (1) Graco Viscon (A side) Material Hose: 50’ x 3/8” I.D. Mixer: 10” static Tip Size: .015-.019” Output psi: 2400-2800 Filter Size: 30-60 mesh (in-line) Solvent Flush Pump Ratio: 10:1
Brush	Respray or brush. Brushing recommended only for touchup of small areas. Use medium, natural bristle brush applying with full strokes. Avoid excessive rebrushing.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	10°C (50°F)	10°C (50°F)	10°C (50°F)	0%
Maximum	32°C (90°F)	49°C (120°F)	43°C (109°F)	90%

Do not apply when the surface temperature is less than 5°F (3°C) 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 thinning and application techniques may be required above or below normal application conditions.

CURING SCHEDULE

Surface Temp.	Dry to Handle	Dry to Topcoat
2°C (36°F)	24 Hours	10 Hours
10°C (50°F)	18 Hours	5 Hours
24°C (75°F)	6 Hours	2 Hours
32°C (90°F)	3 Hours	60 Minutes
40°C (104°F)	30 Minutes	30 Minutes

50% Relative Humidity
*Dry to Topcoat - These times are based on 50-75 microns dry film thickness allowing solvent release and initial curing prior to topcoating. Higher film thickness, insufficient ventilation or cooler temperatures will require longer cure times and could result in solvent entrapment and premature failure. Must have a clean, dry surface for topcoating.

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 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 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: Min. 12 months at 75°F (24°C)

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

Shipping Weight (Approximate)
3.8 Liters - 9 Kg
19 Liters - 45 Kg

Storage Temperature & Humidity
Storage Temperature: 40-95 °F (4-35 °C)
Relative Humidity: 0-90%

PACKAGING, HANDLING & STORAGE

Flash Point (Setaflash)	Part A: 64°F (18°C) Part B: 69°F (20°C) Thinner 2: 24°F (-4.4°C) Thinner 33: 89°F (32°C)
Storage	Store indoors

TYPICAL CHEMICAL RESISTANCE

Exposure	Fumes	Splashes & Spills
Acids	Excellent	Very Good
Alkalies	Excellent	Very Good
Salt	Excellent	Excellent
Solvents	Excellent	Very Good
Water	Excellent	Excellent

*Splash & Spillage for Solvents - Resistance may vary dependent on the type of solvent involved.
*Acids & Alkalies ratings based on proper finish coat.

WARRANTY

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