product data

carboline®

Carbocrylic®3350

Selection & Specification Data

Generic Type
Waterborne Acrylic

Description
Versatile coating with excellent performance properties. Frequently used in the bridge market as a finish coat over inorganic zinc primers, as well as a user-friendly finish for numerous other substrates. In off-white formula may be used as a block-filler.

Features
- Excellent performance over inorganic zinc primers
- Superior color and gloss retention
- Single component
- Spray, brush and roll
- Low odor, low VOC
- Very good filling properties for masonry surfaces

Colors
Refer to Carboline Color Guide

Finish
Semi-Gloss

Primers
Inorganic Zincs and others as recommended under *Substrates & Surface Preparation.* A mist coat may be required to minimize bubbling over Inorganic Zinc primers.

Dry Film Thickness (as finish)
2.0-3.0 mils (50-75 microns)
Do not exceed 3.0 mils (75 microns) in a single coat.

Solids Content
By Volume: 36% ± 2%

Theoretical Coverage Rate
577 mil ft^2 (14.1 m^2/l at 25 microns)
Allow for loss in mixing and application.

VOC Values
As supplied: 0.9 lbs/gal (119 g/l)
EPA Method 24: 2.0 lbs/gal (250 g/l)
(Calculated minus water and exempt solvent.)
These are nominal values and may vary slightly with color.

Dry Temp. Resistance
Continuous: 200°F (93°C)
Non-Continuous: 250°F (121°C)
Slight discoloration and loss of gloss is observed above 200°F (93°C).

Limitations
Apply and cure at 50°F (10°C) and above for 24 hour period.

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
SSPC-SP6 with a 1.0-2.0 mil (25-50 micron) surface profile for maximum protection. SSPC-SP2 or SP3 as minimum requirement. Prime with specific Carboline primers as recommended by your Carboline sales representative.

Galvanized Steel
SSPC-SP1. Prime with Carbocrylic® 120 or others as recommended.

Concrete
Concrete must be cured 28 days at 75°F (24°C) and 50% relative humidity or equivalent. Laitance, form oils, curing agents and hardeners must be removed by suitable method prior to coating application.

CMU
Mortar joints should be thoroughly cured for a minimum of 15 days at 75°F (24°C) and 50% relative humidity or equivalent.

Drywall & Plaster
Joint compound and plaster should be fully cured prior to coating application. Prime with Carbocrylic® 120.

Wood
Lightly sand with fine sandpaper and remove dust. Prime with Carbocrylic® 120.

Previously Painted Surfaces
Lightly sand or abrade to roughen surface and degloss the surface. Existing paint must attain a minimum 3B rating in accordance with ASTM D3359 “X-Scribe” adhesion test. Prime with Carbocrylic® 120.

Performance Data

Test Method	System	Results	Report #
ASTM D4541 Adhesion	Blasted Steel 1 ct. IOZ 1 ct. 3350	500-600 psi (Elcometer)	08332 02556 SR321
ASTM D4213 Scrub Resistance	1 ct. 3350	.0384/.0138 Microliters per 100 cycles Wet/Dry Film Volume	03403
Midwest Weathering	Blasted Steel 1 ct. IOZ 1 ct. 3350	No effect on plane area after 24 months exposure	08332 02556 SR321

Test reports and additional data available upon written request.

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Carbocrylic® 3350

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 Graco.

Conventional Spray Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, .043" I.D. fluid tip and appropriate air cap.

Airless Spray

Pump Ratio:	30:1 (min.)
GPM Output:	3.0 (min.)
Material Hose:	3/8" I.D. (min.)
Tip Size:	.015-.019"
Output PSI:	1800-2100
Filter Size:	60 mesh

Teflon packings are recommended and available from the pump manufacturer.

Brush & Roller (General) Multiple coats may be required to achieve desired appearance, hiding and recommended dry film thickness. Avoid excessive re-brushing or re-rolling.

Brush Use a synthetic bristle brush.

Roller Use a short-nap synthetic roller cover with phenolic core.

Mixing & Thinning

Mixing Power mix until uniform in consistency. Avoid excessive air entrapment.

Thinning May be thinned up to 6 oz/gal (5%) with clean, potable water. Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.

Block Filler Use When used as a block-filler apply first coat (roller preferred) and squeegee flush the surface. If needed, apply second coat. Number of coats will depend on porosity and roughness of surface and desired final appearance.

Cleanup & Safety

Cleanup Use clean potable water followed with suitable solvent to dry equipment. 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. Use adequate ventilation and wear gloves or use protective cream on face and hands if hypersensitive. Keep container closed when not in use.

Application Conditions

Condition	Material	Surface	Ambient	Humidity
Normal	60°-90°F (16°-32°C)	65°-85°F (18°-29°C)	65°-90°F (18°-32°C)	10-85%
Minimum	50°F (10°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	100°F (38°C)	130°F (54°C)	120°F (49°C)	90%

Do not apply when the surface temperature is less than 5°F (3°C) above the dew point. Water-based products are sensitive to moisture during cure. Protect from rain for 72 hours at 75°F (24°C). Do not apply if temperatures are expected to drop below 50°F (10°C) within 24 hours of application. Condensation due to substrate temperatures below the dew point can cause flash rusting on prepared steel and interfere with proper adhesion to the substrate.

Curing Schedule

Surface Temp. & 50% Relative Humidity	Dry to Touch	Dry to Topcoat
50°F (10°C)	8 Hours	8 Hours
60°F (16°C)	4 Hours	4 Hours
75°F (24°C)	2 Hours	2 Hours
90°F (32°C)	1 Hour	1 Hour

These times are based on a 2.0 mil (50 micron) dry film thickness. Higher film thickness, insufficient ventilation, high humidity or cooler temperatures will require longer cure times.

When used as a finish coat on steel:

The acrylic film forming process may require several weeks at 75°F (24°C) with proper ventilation to develop adhesion and water resistance. High humidity, high film thickness, insufficient ventilation or cooler temperatures will lengthen the Dry to Touch and Dry to Topcoat times due to slower water evaporation rate. Waterborne acrylics are sensitive to moisture during early cure and are susceptible to handling damage.

Packaging, Handling & Storage

Shipping Weight (Approximate)	1 Gallon 12 lbs (5 kg)	5 Gallons 55 lbs (25 kg)
Flash Point (Setaflash)	>200°F (93°C)	
Storage (General)	Store Indoors. **Keep from Freezing**	
Storage Temperature & Humidity	40° -110°F (4°-43°C) 0-90% Relative Humidity	
Shelf Life	24 months at 75°F (24°C)	

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

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