

Selection & Specification Data

Generic Type	Waterborne Acrylic
Description	Versatile high performance finish with excellent corrosion resistance and exterior weathering properties, as well as suitability for interior and mild environments.
Features	<ul style="list-style-type: none"> ▪ Multi-purpose interior/exterior coating ▪ Excellent color and gloss retention ▪ Single component ▪ Outstanding corrosion protection ▪ Low odor, low VOC
Colors	Refer to Carboline Color Guide. Certain colors may require multiple coats to hide.
Finish	Semi-Gloss
Primers	Acrylics, Alkyds, Epoxies, Inorganic and Organic Zincs and others as recommended under <i>Substrates & Surface Preparation</i> . A mist coat may be required to minimize bubbling over Inorganic Zinc primers.
Dry Film Thickness	2.0-3.0 mils (50-75 microns) Do not exceed 3.0 mils 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) 288 ft ² at 2 mils (7.1 m ² /l at 50 microns) Allow for loss in mixing and application.
VOC Values	<p><u>As supplied:</u> 0.5 lbs/gal (60 g/l) w/6 oz #102: 0.8 lbs/gal (96 g/l) w/12 oz #102: 1.1 lbs/gal (132 g/l) <u>EPA Method 24:</u> 1.1 lbs/gal (132 g/l) (Calculated minus water and exempt solvents) w/6 oz #102: 1.8 lbs/gal (216 g/l) w/12 oz #102: 2.3 lbs/gal (276 g/l) These are nominal values and may vary slightly with color.</p>
Dry Temp. Resistance	Continuous: 235°F (113°C) Non-Continuous: 325°F (163°C) Slight discoloration and loss of gloss is observed above 200°F (93°C).
Limitations	Apply and cure at temperatures of 50°F and above for 24 hours.

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 by your Carboline Sales Representative.
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 before coating application. Prime with Carbocrylic 120.
CMU	Mortar joints should be thoroughly cured for a minimum of 15 days at 75°F (24°C) and 50% relative humidity or equivalent. Prime with a latex block filler.
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 3A rating in accordance with ASTM D3359 "X-Scribe" adhesion test. Prime with Carbocrylic 120 or others as recommended by your Carboline Sales Representative.

Performance Data

Test Method	System	Results	Report #
ASTM D3359 Adhesion	Blasted Steel 1 ct. 3358 1 ct. 3359	5A	SR326
ASTM D4541 Adhesion	Stainless Steel 1 ct. 3359	1675 psi (Elcometer)	03305
ASTM D4060 Abrasion	1 ct. Acrylic Pr. 2 cts. 3359	185 mg. loss. 3000 cycles, CS10 Wheel	SR326
ASTM D4213 Scrub Resistance	1 ct. 3359	.0235/.0655 Microliters per 100 cycles Wet/Dry Film Volume	03403
ASTM D3363 Pencil Hardness	1 ct. Acrylic Pr. 2 cts. 3359	5B	08299
ASTM D1653 Water Vapor Transmission	1 ct. 3359	Water Vapor Permeance (WVP) of 3.94 U.S. perms	02885
ASTM B117 Salt Fog	Blasted Steel 1 ct. IOZ 1 ct. 3359	No blistering, rusting or rust creepage at scribe after 1500 hours	08436
ASTM E84 Flame and Smoke	1 ct. 3358 1 ct. 3359	Flame 10 Smoke 20 Class A	02819

Test reports and additional data available upon written request.

Carbocrylic® 3359

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) Pre-rinse equipment with undiluted Carboline Surface Cleaner 3 followed by clean potable water before spraying. 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, ½" I.D. minimum material hose, .086" I.D. fluid tip and appropriate air cap.

Airless Spray Pump Ratio: 30:1 (min.)*
Pump Ratio: 45:1 for two or more guns
GPM Output: 3.0 (min.)
Material Hose: 3/8" I.D. (min.)
Tip Size: .017-.019"
Output PSI: 1800-2100
Filter Size: 60 mesh
*Teflon packings are recommended and available from the pump manufacturer. For ease of application, remove the pickup tube and immerse the lower unit directly into the material.

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. For rough surfaces, use a 3/8" woven nap synthetic roller.

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. Areas with cool substrate and warm ambient conditions can experience a surface skinning and separation. Under these conditions, the use of 6-12 oz/gal (5-10%) of Additive 102 assists in the proper film formation at the recommended dry film thickness, without surface skinning. Use of thinners other than those supplied by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.

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.

September 2006 replaces April 2003

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 or injuries resulting from use. Liability, if any, is limited to replacement of products. 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. Carboline® and Carbocrylic® are registered trademarks of Carboline Company.

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)	10-80%
Minimum	50°F (10°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	105°F (40°C)	130°F (54°C)	110°F (43°C)	85%

Do not apply when the surface temperature is less than 5°F (3°C) above the dew point. Do not apply if temperatures are expected to drop below 50°F (10°C) within 24 hours of application. Special application techniques may be required above or below normal application conditions.

Curing Schedule

Surface Temp. & 50% Relative Humidity	Dry to Handle	Dry to Topcoat
50°F (10°C)	3 Hours	3 Hours
75°F (24°C)	2 Hours	2 Hours
90°F (32°C)	1 Hour	1 Hour

These times are based on a 2.0-3.0 mil (50-75 micron) dry film thickness. Higher film thicknesses, insufficient ventilation, high humidity or cooler temperatures will require longer cure times.

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 Handle 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)	<u>1 Gallon</u>	<u>5 Gallons</u>	<u>50 Gallons</u>
	11 lbs (5 kg)	51 lbs (23 kg)	525 lbs (239 kg)

Flash Point (Setaflash) >200°F (93°C)

Storage (General) Store Indoors. **Keep from Freezing**

Storage Temperature & Humidity 40° -110°F (4°-43°C)
0-95% Relative Humidity

Shelf Life 36 months at 75°F (24°C)

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



350 Hanley Industrial Court, St. Louis, MO 63144-1599
314/644-1000 314/644-4617 (fax) www.carboline.com

An **RPM** Company