

SELECTION & SPECIFICATION DATA

Generic Type	Aliphatic Acrylic Polyurethane
Description	Premium thin film, high gloss finish with superior weathering performance due to its outstanding color and gloss retention in UV exposure. This smooth, flexible finish has excellent abrasion and impact resistance combined with very good chemical resistance. Carbothane 134 UV Ultra provides excellent durability and maximum service life in many harsh exterior environments.
Features	<ul style="list-style-type: none"> • Superior color and gloss retention in UV exposure • Exceeds SSPC Coating Specification No. 36 Level 4A, highest level • Outstanding weatherability • Exceptional impact and abrasion resistance • Excellent flow characteristics allow application by spray, brush and roller • High solids, low VOC content • Suitable for use in USDA inspected facilities • Indefinite recoatability
Color	1864 (White), S800 (White), 6666 (Safety Yellow), 1675 (Ignition Yellow), 5555 (Safety Red), C703 (Grey), C705 (Light Grey), C900 (Black). Other colors are available on request. Contact your Carboline Representative for availability
Finish	Gloss
Primer	Many Carboline primers may be suitable including Carboguard, Carbomastic and others as recommended by Carboline. Refer to Substrates & Surface Preparation.
Dry Film Thickness	2 - 3 mils (51 - 76 microns) per coat
Solids Content	By Volume 70% +/- 2%
Theoretical Coverage Rate	1123 ft ² /gal at 1.0 mils (27.6 m ² /l at 25 microns) 561 ft ² /gal at 2.0 mils (13.8 m ² /l at 50 microns) 374 ft ² /gal at 3.0 mils (9.2 m ² /l at 75 microns) Allow for loss in mixing and application.
VOC Values	As Supplied : 2.2 lbs./gal (264 g/l) Thinner 214 : 25 oz/gal 2.9 lbs./gal (348 g/l) Thinner 215 : 25 oz/gal 3.0 lbs./gal (362 g/l) Thinner 25 : 25 oz/gal 3.06 lbs./gal (366 g/l) These are nominal values and may vary slightly with color.
Dry Temp. Resistance	Continuous: 300°F (149°C) Some discoloration and loss of gloss may be experienced at elevated temperatures.
Limitations	*For metallic colors the alignment of pigments is dependent on application conditions and techniques. Care must be taken to keep conditions and application techniques as consistent as possible to minimize variations in final appearance. It is also advisable to work from a single batch of coating since variations can occur from batch to batch. For more information consult with Carboline.
Topcoats	Carbothane 134 Clear Coat may be used for even longer color and gloss retention in UV exposure.

Carbothane[®] 134 UV Ultra

PRODUCT DATA SHEET



SUBSTRATES & SURFACE PREPARATION

General	Clean to remove all contaminants in accordance with SSPC-SP 1. Primer may be required. Consult with your Carboline Sales Representative and refer to the specific primer's Product Data Sheet for detailed requirements.
Galvanized Steel	Prepare galvanized metal in accordance with SSPC-SP 16. Prime with specific Carboline primer as recommended by your Carboline Sales Representative. Refer to the specific primer's Product Data Sheet for substrate preparation requirements.
Previously Painted Surfaces	Existing coatings must attain a minimum adhesion rating of 3A when tested in accordance with ASTM D3359 Standard Test Methods for Measuring Adhesion by Tape Test. Lightly abrade the substrate to provide anchor profile and to degloss the substrate.

MIXING & THINNING

Mixing	Power mix Part A first and then add Part B Urethane Converter 811 followed by power mixing to adequately mix the two parts together to provide a uniform and consistent mix. Take precautions to avoid entraining air during mixing. We do not recommend mixing partial kits.
Thinning	Spray, Brush, and/or Roller: Up to 25 oz/gal (20%) w/ Thinner 25, Thinner 214 or Thinner 215. For application during hot, windy, and/or humid conditions slower evaporating solvents such as Thinner 214 and/or Thinner 215 may be recommended. Thinner 236E may also be used to minimize HAP and VOC emissions. Use of solvents other than those supplied and recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.
Ratio	4:1 Ratio (A to B)
Pot Life	4 Hours at 75°F (24°C) and less at higher temps. Pot life ends when coating becomes too viscous to use. MOISTURE CONTAMINATION WILL SHORTEN POT LIFE AND CAUSE GELLATION.

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 that may require thinning, adjustments in equipment and/or adjustments in spray techniques to produce the desired results. Spray equipment is available from manufacturers such as Binks, DeVilbiss, Graco, and etc.
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	*Pump Ratio: 30:1 (min.) GPM Output: 3.0 (min.) Material Hose: 3/8" I.D. (min.) Tip Size: .015-.017" Output PSI: 2100-2400 Filter Size: 60 mesh *PTFE packings are recommended and available from the pump manufacturer.
Brush & Roller (General)	Multiple coats may be required to obtain desired appearance, recommended dry film thickness and adequate hiding. Avoid excessive re-brushing or re-rolling. For best results, tie-in within 10 minutes at 75°F (24°C).

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Brush | Use a medium, natural bristle brush designed for solvented coatings.

Roller | Use a short-nap roller cover designed for use with solvented coatings.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	50°F (10°C)	35°F (2°C)	35°F (2°C)	0%
Maximum	100°F (38°C)	120°F (49°C)	95°F (35°C)	80%

Industry standards are for substrate temperatures to be above 5°F (3°C) the dew point. Caution: This product is moisture sensitive in the liquid stage and until fully cured. Protect from high humidity, dew and moisture contact until fully cured. Application and/or curing in high humidity, or exposure to moisture from rain or dew may result in microfoaming, microbubbling, and/or loss of sheen.

CURING SCHEDULE

Surface Temp.	Dry to Handle	Dry to Recoat & Topcoat w/ other finishes	Final Cure General
35°F (2°C)	36 Hours	36 Hours	14 Days
50°F (10°C)	16 Hours	16 Hours	10 Days
75°F (24°C)	8 Hours	8 Hours	7 Days
90°F (32°C)	4 Hours	4 Hours	5 Days

These times are based on 2.0 mil (50 micron) dry film thickness. Higher film thickness, insufficient ventilation and/or cooler temperatures will require longer cure times and could result in solvent entrapment and/or premature failure.

***Maximum recoat times are indefinite.** Surface must be clean and dry. As part of good painting practice it is recommended to first test for adhesion by wiping the surface with Thinner 25, Thinner 214 or Thinner 215. If the film shows a slight "tack" the surface is suitable for recoating without abrading to create profile.

Carboline Additive 101 can be used to accelerate the film forming process. It may be added at a rate of 1.0-1.2 oz. per mixed gallon or 6 oz. per mixed five gallons. At this rate, Additive 101 will accelerate the cure of the coating between 25%-40% depending on the air and substrate temperatures. It will also reduce the pot life by approximately 40%-50%. With the use of Additive 101, this product will continue to cure at temperatures as low as 20°F (-7°C).

CLEANUP & SAFETY

Cleanup | Use Thinner 2, Thinner 25, Thinner 76 or Acetone. In case of spillage, 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 and use personal protective equipment as directed.

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 able to monitor levels, use MSHA / NIOSH approved respirator.

Carbothane[®] 134 UV Ultra

PRODUCT DATA SHEET



PACKAGING, HANDLING & STORAGE

Shelf Life	Part A: Min. 36 months at 75°F (24°C) Part B Urethane Converter 811: Min. 24 months at 75°F (24°C) *Shelf Life: when kept at recommended storage conditions and in original unopened containers.
Storage Temperature & Humidity	40° -110°F (4°-43°C) 0-80% Relative Humidity
Storage	Store Indoors. This product is solvent based and not affected by excursions below these published storage temperatures, down to 10°F, for a duration of no more than 14 days. Always inspect the product prior to use to make sure it is smooth and homogeneous when properly mixed.
Shipping Weight (Approximate)	1 Gallon Kit - 13 lbs (5kg) 5 Gallon Kit - 57 lbs (26 kg)
Flash Point (Setflash)	Carbothane 134 HG Part A: 50°F (10°C) Urethane Converter 811 Part B: 127°F (53°C)

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.