

SELECTION & SPECIFICATION DATA

Generic Type	Aliphatic Acrylic Polyurethane
Description	Thin film, high gloss finish with exceptional weathering performance characteristics. Used extensively in virtually all industrial markets, it provides a smooth, durable finish that has superior resistance to corrosion, abrasion and chemical exposure.
Features	<ul style="list-style-type: none"> • High solids, low VOC content • Excellent weatherability • Exceeds SSPC Paint 36 specification for a Level 3 urethane • Available in custom colors • Excellent flow characteristics allow for application by spray or roller • Superior impact and abrasion resistance • Indefinite recoatability • VOC compliant
Color	Refer to Carboline Color Guide. Certain colors, particularly in non-lead safety oranges, reds and yellows may require multiple coats for adequate hiding. Check color suitability before use.
Finish	High Gloss
Primer	Refer to Substrates & Surface Preparation.
Dry Film Thickness	<p>50 - 75 microns (1.95 - 2.95 mils) per coat</p> <p>Dry Film Thicknesses exceeding 150 microns per coat are not recommended</p>
Solids Content	By Volume 65% +/- 2%
Theoretical Coverage Rates	8,7 m ² /l at 75 microns
Theoretical Coverage Rate	<p>25.6 m²/l at 25 microns (1043 ft²/gal at 1.0 mils)</p> <p>13.1 m²/l at 49 microns (535 ft²/gal at 2.0 mils)</p> <p>8.7 m²/l at 74 microns (353 ft²/gal at 3.0 mils)</p> <p>Allow for loss in mixing and application.</p>
VOC Values	<p>As Supplied : 350 g/l</p> <p>These are nominal values and may vary slightly with color.</p>
Dry Temp. Resistance	<p>Continuous: 93°C (200°F)</p> <p>Non-Continuous: 121°C (250°F)</p> <p>Discoloration and loss of gloss is observed above 200°F (93°C).</p>
Limitations	<p>*The alignment of aluminum flakes in aluminum-filled finishes is very dependent on application conditions and techniques. Care must be taken to keep conditions as constant as possible to reduce variations in final appearance. It is also advisable to work from a single batch of material since variations can occur from batch to batch. For more information consult Carboline Technical Service Department.</p> <p>Not recommended for immersion</p>
Topcoats	Normally not required

Carbothane 134 HP

PRODUCT DATA SHEET



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. For all surfaces prime with specific Carboline primer as recommended by your Carboline sales representative. Refer to the specific primer's Product Data Sheet for detailed requirements.
Galvanized Steel	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	Lightly sand to roughen and degloss the surface. Existing paint must attain a minimum 3B rating in accordance with ASTM D3359 "X-Scribe" adhesion test.

MIXING & THINNING

Mixing	Power mix Part A separately, then combine with Part B and power mix. DO NOT MIX PARTIAL KITS.
Thinning	Consult your local Carboline representative for a proper thinner recommendation based on your local air permitting regulations and method of application. 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 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 and may require adjustments in spray techniques. Wet film thickness is easily and quickly achieved. Spray equipment 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, 0.070" 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: 0.015-0.017" 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 rerolling. For best results, tie-in within 10 minutes at 75°F (24°C).
Brush	Recommended for touch-up only. Use a medium, natural bristle brush.
Roller	Use a short-nap mohair roller cover with phenolic core.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	10°C (50°F)	4°C (39°F)	4°C (39°F)	10%
Maximum	38°C (100°F)	49°C (120°F)	35°C (95°F)	80%

Industry standards are for substrate temperatures to be 5°F(3°C) above 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 humidities above maximum, or exposure to moisture from rain or dew may result in a loss of gloss and/or micro-bubbling of the product.

CURING SCHEDULE

Surface Temp.	Dry to Handle	Dry to Recoat & Topcoat w/ other finishes	Final Cure General
2°C (35°F)	18 Hours	18 Hours	14 Days
10°C (50°F)	8 Hours	8 Hours	7 Days
24°C (75°F)	4 Hours	4 Hours	3 Days
32°C (90°F)	1 Hour	1 Hour	1 Day

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

***Maximum recoat times are indefinite.** Surface must be clean and dry. As part of good painting practice it is recommended to test for adhesion by wiping the surface with thinner. If the film shows a slight "tack" the surface is suitable for recoating without extensive surface preparation such as abrading.

CLEANUP & SAFETY

Cleanup	Use Thinner 2 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 MSDS 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.
Caution	Contains flammable solvents, keep away from flames and sparks. All electrical installations must be grounded. In areas where there is a danger of explosion, operators must use non-ferrous tools.

PACKAGING, HANDLING & STORAGE

Shelf Life	Part A: Min. 24 months at 75°F (24°C) Part B: 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
Flash Point (Setaflash)	Carbothane 134 HP (Part A): 90°F (32°C) Urethane Converter (Part B): 127°F (53°C)

Carbothane 134 HP

PRODUCT DATA SHEET



PACKAGING, HANDLING & STORAGE

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.
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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.