

SELECTION & SPECIFICATION DATA

Generic Type	Aliphatic Acrylic Polyurethane
Description	<p>Carbothane 134 PU is a polyurethane with a glossy finish. It is applied forming a soft, flawless, hard and easy-to-clean film. It has very good resistance to spills and splashes of acids, alkalines and most solvents. It has excellent resistance to spills and splashes of salt and water. Easy to apply by conventional spray or airless.</p> <p>Its use is recommended:</p> <p>As a final exterior coating for tanks, equipment, pipes, structural steel, and concrete surfaces, where chemical resistance, hardness, and weather resistance are required. It is an excellent coating to be used in chemical and industrial plants, waste treatment plants, pulp and paper processing, petrochemical plants, offshore and similar industrial services.</p>
Features	<ul style="list-style-type: none"> • Excellent weatherability • Excellent flexibility • Excellent abrasion resistance • Optimal protection with minimum layer thickness • Excellent flow behavior with spray and roll application • Available in many colors • VOC compliant to current AIM regulation
Color	<p>Color charts RAL, BS, Munsell etc.</p> <p>Certain colors needs an additional coat for optimal opacity.</p>
Finish	High Gloss
Primer	It can be applied over epoxy and urethane coatings. Consult with your Carboline representative for further advice.
Dry Film Thickness	<p>51 microns (2 mils) per coat</p> <p>Calculated thickness for films applied on a smooth surface. Some colors require multiple coats to achieve a proper finish. Rough surfaces also require additional thickness.</p>
Solid(s) Content	<p>By volume: 55 ± 2%</p> <p>Aluminum color: 45 ± 2%</p>
Theoretical Coverage Rates	<p>22 m²/l at 25 microns (18 m²/l for aluminum)</p> <p>Allow for loss in mixing and application.</p>
VOC Values	<p>Supply: 430 g/l</p> <p>Diluted with: Thinner 25 or Thinner 82 at 12% by volume: 500 g/l</p> <p>Thinner 215 at 12% by volume: 490 g/l</p> <p>These are nominal values and may slightly change depending on the color.</p>
Dry Temp. Resistance	<p>Continuous: 93°C (199°F)</p> <p>Non-Continuous: 121°C (250°F)</p> <p>Discoloration and loss of gloss is observed above 93°C.</p>
Limitations	Immersion service
Topcoats	They are not usually applied.

Carbothane 134 PU

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.
Steel	Prime with specific Carboline primers as recommended.
Concrete	Apply over recommended primers, clean and dry intermediate and/or bond coats.
Previously Painted Surfaces	Lightly sand or abrade to roughen and degloss the surface. Existing paint must attain a minimum 3b rating in accordance with ASTM D3359 "X-Scribe" adhesion test. Prime with specific primers as recommended by Carboline.

MIXING & THINNING

Mixing	First mix separately the two components carefully. Then add them together and mix again carefully. NEVER MIX PARTIAL KITS.
Thinning	Spray: up to 20% with Thinner 25 For hot and/or windy conditions: up to 25% with Thinner 82. Roller: up to 20% with Thinner 215 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	7:1 (A to B).
Pot Life	4 Hours at 24°C and less at higher temperatures. 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	The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss, Graco and others.
Conventional Spray	Pressure pot equipment with dual regulators, 3/8" I.D. minimum material hose, 0.043" I.D. fluid tip and appropriate air cap.
Airless Spray	Pump ratio: 30:1 (min.) Output Flow: 11.36 LPM (GPM 3.0) (min.) Hose: 9.53 mm (3/8") I.D. (min.) Nozzle size: 0.015-0.017" (0.38-0.43 mm) Outlet Pressure: 145-160 (2100-2300) psi Filter Size: 60 mesh It is recommended to use Teflon containers and pumps from the same manufacturer.
Brush & Roller (General)	To obtain the desired appearance, recommended dry film thickness, and proper coverage, the application of several coats may be necessary. Avoid excessive repainting.
Brush	Use a medium natural bristle brush.
Roller	Use a short-pile natural wool roller with a phenolic core. Avoid rolling over with the roller. To obtain the recommended dry film thickness, proper coverage, and desired appearance, 2-coat application may be necessary.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	4°C (39°F)	4°C (39°F)	4°C (39°F)	0%
Maximum	43°C (109°F)	54°C (129°F)	49°C (120°F)	85%

Substrate temperatures should be 3°C above the dew point. This product is moisture sensitive in the liquid stage. Protect from high humidity, dew and direct moisture contact until fully cured. Application and/or curing in humidity 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	Final Cure
4°C (39°F)	10 Hours	10 Hours	14 Days
16°C (61°F)	6 Hours	6 Hours	10 Days
24°C (75°F)	3 Hours	3 Hours	7 Days
32°C (90°F)	30 Minutes	30 Minutes	5 Days

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

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. User should test and monitor exposure levels to insure all personnel are below guidelines. If not sure or if not able to monitor levels, use MSHA/NIOSH approved supplied air respirator.
Caution	Contains flammable solvents, keep away from flames and sparks. All electrical installations must be earthed. In areas where there is a danger of explosion, operators must use non-ferrous tools and non-sparking shoes.

PACKAGING, HANDLING & STORAGE

Shelf Life	Part A & B: 24 months at 24°C. note: Polyurethane materials are sensitive to moisture. Before use, keep the product in its original container unopened and covered properly. Moisture contamination will result in poor cure of the coating, or gelling of Component B.
Shipping Weight (Approximate)	20 L 26 Kg
Storage Temperature & Humidity	4°C-43°C 0-90% Relative Humidity

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PACKAGING, HANDLING & STORAGE

Flash Point (Setaflash)	Part A: 25°C
	Part B: 38°C

Storage	Store indoors.
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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.