

## Selection Data

**GENERIC TYPE :** Aliphatic Acrylic Polyurethane. Part A and Part B mixed prior to application.

**GENERAL PROPERTIES :** Carboline 134 a glossy, tile-like attractive topcoat, produces a smooth, slick and hard film which is readily cleaned. Carboline 134 has very good resistance to splash and spillage of acids, alkalis and most solvents. It exhibits excellent resistance to splash and spillage of salts and water. It is easily applied by airless or conventional spray.

- Excellent gloss and color retention.
- Excellent weatherability
- Excellent abrasion resistance.
- Excellent flexibility.

**RECOMMENDED USES :** Recommended as a finish coat for exteriors of tank, equipment, piping, structural steel and concrete surface where chemical resistance, toughness and weatherability are required. Carboline 134 is an excellent coating for use in chemical processing, pulp and paper, petrochemical, offshore drilling and similar demanding industries. Carboline 134 also finds many applications in areas of heavy marine, institutional and waste treatment where a highly resistant and attractive coating is desired.

**NOT RECOMMENDED FOR :** Immersion services.

### TYPICAL CHEMICAL RESISTANCE :

Exposure	Splash & Spillage	Fumes
Acids(1)	Very Good	Excellent
Alkalies(1)	Very Good	Excellent
Solvents (2)	Very Good	Excellent
Salt	Excellent	Excellent
Water	Excellent	Excellent

- (1) Certain colors may discolor.  
 (2) Resistance may vary depending on the type of solvent involved.

### TEMPERATURE RESISTANCE : (Non-immersion)

Continuous : 200°F(93°C)  
 Non-continuous : 250°F(121°C)

**SUBSTRATES :** Can be used over properly primed metals and cementitious surfaces.

**COMPATIBILITY COATINGS :** Can be used over vinyl, acrylic, urethane, epoxy and others as recommended. Normally applied over coatings such as Carboguard 890 and Carboguard 893 Primer.

## Specification Data

### THEORETICAL SOLIDS CONTENT OF MIXED MATERIAL :

Carboline 134 **By Volume**  
 48% ± 2%

### VOLATILE ORGANIC CONTENT (VOC) :

The following are nominal values:

**As supplied :** 3.99 lbs/gal (408 g/l)

**Thinned :** Utilizing Thinner #25 (spray application)

Thinner	% Thinned	Fluid Ozs./Gallon	Pounds/ Gallon	Grams/ Liter
#25	25	32	4.67	560
#82	25	32	4.76	570
#215	20	25.6	4.54	544

### RECOMMENDED DRY FILM THICKNESS PER COAT : \*

1.5 mils (38μ)

\*NOTE : Some colors of Carboline 134 may require two coats to hide when applied over dark surfaces.

### THEORETICAL COVERAGE PER MIXED GALLON : \*

770 mils sq. ft ( 19 sq. m/l at 25μ)

513 mils sq .ft ( 13 sq. m/l at 38μ)

\*Material and application losses will vary and must be taken into consideration when estimating job requirements.

### STORAGE CONDITIONS :

Store indoors.

Temperature : 40~110°F(4~43°C)

Humidity : 0~90%

### SHELF LIFE : When stored at 75°F (24°C)

Carboline 134 Part A 24 months minimum

Carboline 134 Part B 24 months minimum

**NOTE :** Polyurethane materials are moisture sensitive. Keep tightly covered before use. Moisture contamination will cause poor cure of the coating or gellation of Part B.

**COLORS :** Available in a variety of colors. Contact your local Carboline Sales Representative or Carboline Customer Service Department for availability. This product is available in Carboline's Rapid Tint System. Variance with Rapid Tint colors may be greater than with standard production batches. Check color suitability before use.

**GLOSS :** High gloss.

## Ordering Information

Prices may be obtained from your local Carboline Sales Representative or Carboline Customer Service Representative.

### APPROXIMATE SHIPPING WEIGHT :

	1's	5's
Carboline 134	12 lbs.(5 kg)	57 lbs.(26 kg)
Carboline Thinner #215 *	8 lbs.(3.6 kg)	40 lbs.(18.2 kg)
Carboline Thinner #25	9 lbs.(4 kg)	42 lbs.(19 kg)
Carboline Thinner #82 **	9 lbs.(4 kg)	42 lbs.(19 kg)

\* For roller application only.

\*\* For hot/windy conditions.

# Carboline® 134

## FLASH POINT : (Pensky-Martens Closed Cup)

Carboline 134 Part A	63°F(24°C)
Urethane Converter 553	91°F(33°C)
Carboline Thinner #215	128°F(54°C)
Carboline Thinner #25	87°F(31°C)
Carboline Thinner #82	78°F(26°C)

**SURFACE PREPARATIONS** : Remove any oil or grease from surface to be coated with clean rags soaked in Carboline thinner #2 in accordance with SSPC-SP 1-82.

**Steel** : Apply over clean, dry recommended primers, surfacers and/or tiecoats.

**Concrete** : Apply over clean, dry recommended primers, surfacers and/or tiecoats.

**MIXING** : Mix separately, then combine and mix in the following proportions.

**Do not mix partial kits.**

	<u>1 Gal. Kit</u>	<u>5 Gal. Kit</u>
Carboline 134 Part A	7 pts.	Partial filled 5 gallon can
Urethane Converter 553	1 pt.	Partial filled 1 gallon can

**THINNING** : Thin up to 25% by volume with thinner #25.

For hot and/or windy conditions use Thinner #82.

Thin up to 20% by volume with Thinner #215 for brush and roller applications. Do not exceed recommended level of thinning.

Refer to Specification Data for VOC information.

**NOTE** : Substitute thinners may contain alcohols which will inhibit the cure of Carboline 134. Use of thinners other than those supplied or approved by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.

**POT LIFE** : Four hours at 75°F (24°C) and less at higher temperatures. Pot life ends when material becomes too viscous to use.

## APPLICATION TEMPERATURES :

	<u>Material</u>	<u>Surfaces</u>
Normal	65-85°F(18-29°C)	65-85°F(18-29°C)
Minimum	40°F( 4°C)	40°F( 4°C)
Maximum	110°F(43°C)	130°F(54°C)
	<u>Ambient</u>	<u>Humidity</u>
Normal	60-85°F(16-29°C)	35-80%
Minimum	40°F( 4°C)	0%
Maximum	120°F(49°C)	85%

Do not apply when the surface temperature is less than 5°F (2°C) above the dew point.

Special application techniques may be required above or below normal conditions.

**SPRAY** : The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.

**CONVENTIONAL** : Use a 3/8" minimum material hose, 0.043" I.D. fluid tip and appropriate air cap. Hold approximately 12-14 inches from surface and at a tight angle to the surface.

## Airless :

Pump Ratio	: 30 : 1 (min)*
GPM Output	: 3.0 (min)
Material Hose	: 3/8" I.D. (min)
Tip Size	: 0.013" - 0.015
Output psi	: 2,100 - 2,300
Filter Size	: 60 - 100 mesh

\* Teflon packings are recommended and are available from the pump manufacturer.

**BRUSH OR ROLLER** : Brushing recommended only for touch-up of small areas. Use natural bristle brush applying with full strokes. For roller application, use a short nap mohair roller with phenolic core. Avoid rebrushing and/or rerolling.

**DRYING TIMES** : These times are based on recommended dry thickness of 1.5 mils (38µ). Higher film thicknesses will lengthen cure times.

<u>Surface Temperature</u>	<u>Dry to Recoat</u>	<u>Final Cure</u>
40°F( 4°C)	10 Hours	2 Weeks
60°F(16°C)	6 Hours	10 Days
75°F(24°C)	3 Hours	1 Week
90°F(32°C)	1/2 Hour	5 Days

**RAIN RESISTANCE** : Requires a minimum cure of three hours at 75°F(24°C) and longer at lower temperatures. Surface moisture before this time will decrease the gloss.

**CLEAN UP** : Use Thinner #2.

**CAUTION** : READ AND FOLLOW ALL CAUTION STATEMENTS ON THIS PRODUCT DATA SHEET AND ON THE MATERIAL SAFETY DATA SHEET FOR THIS PRODUCT.

CAUTION: CONTAINS FLAMMABLE SOLVENTS. KEEP AWAY FROM SPARKS AND OPEN FLAMES. IN CONFINED AREAS WORKMEN MUST WEAR FRESH AIRLINE RESPIRATORS. HYPERSENSITIVE PERSONS SHOULD WEAR GLOVES OR USE PROTECTIVE CREAM. ALL ELECTRIC EQUIPMENT AND INSTALLATIONS SHOULD BE MADE AND GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. IN AREAS WHERE EXPLOSION HAZARDS EXIST. WORKMEN SHOULD BE REQUIRED TO USE NONFERROUS TOOLS AND TO WEAR CONDUCTIVE AND NONSPARKING SHOES.

