

## Technical Data

<b>Generic Type</b>	Aliphatic Acrylic-Polyester Polyurethane
<b>Description</b>	High build, low sheen finish that has excellent resistance to corrosion, chemicals and abrasion. Suitable for application over a number of Carboline primers and intermediates, this material provides very good weathering performance in a broad range of colors.
<b>Features</b>	<ul style="list-style-type: none"> <li>▪ Outstanding performance properties in both mild and aggressive environments</li> <li>▪ High build; suitable for many two-coat systems</li> <li>▪ Suitable for application direct to inorganic zincs</li> <li>▪ Application by spray, brush or roller</li> <li>▪ Indefinite recoatability</li> </ul>
<b>Color</b>	A variety of colors including RAL Colors by our Mix System.
<b>Finish</b>	Satin
<b>Primers</b>	Refer to Substrates & Surface Preparation
<b>Topcoats</b>	Carbothane® Clear Coat
<b>Dry Film Thickness</b>	3.0-5.0 mils (75-125 microns) per coat. Dry film thickness in excess of 7 mils (175 microns) per coat is not recommended.
<b>Solids Content (%VS)</b>	Hacimce: 57% ± 3% *Values slightly change depending on the color.
<b>Theoretical Coverage Rate</b>	914 mil ft <sup>2</sup> (22.8 m <sup>2</sup> ) 228 ft/l at 25 microns) 2 at 4 mils (5.7 m <sup>2</sup> ) Allow for loss in mixing and application. /l at 100 microns)
<b>VOC Values</b>	AS Supplied: 375 g/l  1.5 oz/gal of Additive 101 adds 0.08 lbs/gal (10g/l) These are nominal values and may vary slightly with color.
<b>Dry Temp. Resistance</b>	Continuous: 200°F (93°C) Non-Continuous: 250°F (121°C) Discoloration and loss of gloss is observed above 200°F (93°C).

\* 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.

## Substrates & Surface Preparation

<b>General</b>	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. Refer to the specific primer's Product Data Sheet for detailed requirements of the specified primer.
<b>Steel</b>	SSPC-SP6 with a 1.5-2.5 mil (37.5-62.5 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.
<b>Galvanized Steel</b>	Prime with specific Carboline primers as recommended by your Carboline Sales Representative. Refer to the specific primer's Product Data Sheet for substrate preparation requirements.
<b>Aluminium</b>	SSPC-SP1 and prime with appropriate Carboline primer as recommended by your Carboline sales representative.
<b>Previously painted surfaces</b>	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 Carboline primers as recommended by your Carboline sales representative.

## 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:

<b>Spray Application (General)</b>	This is a high solids coating and may require adjustments in spray techniques. Wet film thickness is easily and quickly achieved. The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.												
<b>Conventional Spray</b>	Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, .070" I.D. fluid tip and appropriate air cap.												
<b>Airless Spray</b>	<table border="0"> <tr> <td>Pump Ratio:</td> <td>30:1 (min.)*</td> </tr> <tr> <td>GPM Output:</td> <td>11 LT/minutes (min.)</td> </tr> <tr> <td>Material Hose:</td> <td>3/8" I.D. (min.)</td> </tr> <tr> <td>Tip Size:</td> <td>0.013-.017"</td> </tr> <tr> <td>Output PSI:</td> <td>2100-2300 psi</td> </tr> <tr> <td>Filter Size:</td> <td>60 mesh</td> </tr> </table> <p>*Teflon packings are recommended and available from the pump manufacturer.</p>	Pump Ratio:	30:1 (min.)*	GPM Output:	11 LT/minutes (min.)	Material Hose:	3/8" I.D. (min.)	Tip Size:	0.013-.017"	Output PSI:	2100-2300 psi	Filter Size:	60 mesh
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<b>Brush &amp; Roller (General)</b>	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).												
<b>Brush</b>	Recommended for touch-up only. Use a medium, natural bristle brush.												
<b>Roller</b>	Use a medium-nap synthetic roller cover with phenolic core.												

# Carbothane 131 HB

## Mixing & Thinning

**Mixing** Power mix Part A separately, then combine and power mix. DO NOT MIX PARTIAL KITS.

**Mixing Ratio** 7:1 Ratio (By weight)

**Thinning (By volume)** Spray: Up to 10% with Thinner #25  
Roller: Up to 14% with Thinner #25  
Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.

Thinner #214 may also be used up to 6 oz/gal for either spray or brush/roller application. Thinner #236E may also be used to thin this product to minimize HAP and VOC emissions. Consult Carboline Technical Service for guidance.

**Pot Life** 4 Hours at 75°F (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.

## Clean-up & 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** This product contains flammable solvents. Keep away from sparks and open flames. All electrical equipment and installations should be made and grounded in accordance with the National Electric Code. In areas where explosion hazards exist, workmen should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

## Application Conditions

Condition	Material	Surface	Çevre	Ambient
Normal	18°-29°C	18°-29°C	18°-29°C	35-60%
Minimum	4°C	4°C	4°C	0%
Maximum	38°C	43°C	43°C	85%

Industry standards are for substrate temperatures to be 5°F (3°C) above the dew point. This product simply requires the substrate temperature to be above the dew point.

**Caution:** This Product is moisture sensitive in the liquid stage and until cured. Protect from high humidity, dew and direct moisture contact until 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 microbubbling of the product.

## Curing Schedule

Surface Temp. & 50% Relative Humidity	Dry to Handle	Final Cure needed before service
2°C	32 Hours	28 Days
10°C	16 Hours	14 Days
24°C	8 Hours	7 Days
32°C	2 Hours	4 Days

\*Values may vary depending on the color chosen.

These times are based on a 3.0-5.0 mil (75-125 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. Additive 101 may be used at 1.5 oz/mixed gal to accelerate the cure by 30%.

\*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 25. If the film shows a slight "tack" the surface is suitable for recoating without extensive surface preparation such as abrading.

## Packing, Handling & Storage

**Standard Kit** 24 kg Kit (21 kg Comp A. + 3 kg Comp B)  
8 kg Kit (7 kg Comp A. + 1 kg Comp B)

**(Flash Point (PMCC))** Part A: 35°C  
Part B: 33°C

**Storage (General)** Store indoors

**Storage Temperature & Humidity** 4°-43°C  
0-90% Relative Humidity

**Shelf Life** Part A: 24 ay (24°C)  
Part B: Min. 12 ay (24°C)



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An **RPM** Company

**CAUTION:** This product is moisture sensitive. Protect packages from high humidity, dew and direct moisture contact until application. Ensure the can lid is tightly closed. Moisture contamination in the product may cause incorrect curing or gelation of B component.

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