

## SELECTION & SPECIFICATION DATA

<b>Generic Type</b>	Aliphatic Acrylic Polyurethane
<b>Description</b>	Thin film, high gloss finish with exceptional weathering performance characteristics. Used extensively in virtually all industrial markets, 134 HG provides a smooth, durable finish that has superior resistance to corrosion, abrasion and chemical exposure.
<b>Features</b>	<ul style="list-style-type: none"> <li>• High solids, low VOC content</li> <li>• Excellent weatherability</li> <li>• Exceeds SSPC Paint 36 specification for a Level 3 urethane</li> <li>• Conforms to the requirements of AS/NZS 3750.6:2009, Type 1 "Paints for Steel Structures - Full Gloss Polyurethane (two pack)"</li> <li>• Approved for use in food &amp; dairy processing plants (refer to "Approvals NZ/AU" section)</li> <li>• Excellent flow characteristics allow for application by spray or roller</li> <li>• Superior impact and abrasion resistance</li> <li>• Indefinite recoatability</li> </ul>
<b>Colour</b>	<ul style="list-style-type: none"> <li>• <b>NZ Standard:</b> White, Black, &amp; Golden Yellow</li> <li>• <b>AU Standard:</b> White, &amp; Golden Yellow</li> <li>• <b>AU/NZ Tinted:</b> Available in most British Standard, AS 2700, Resene colours and custom tints.</li> </ul>
<b>Finish</b>	Gloss
<b>Primer</b>	Refer to Substrates & Surface Preparation.
<b>Film Build</b>	50 - 75 microns dry per coat
<b>Solid(s) Content</b>	By Volume 70% +/- 2%
<b>Theoretical Coverage Rates</b>	14 m <sup>2</sup> /litre at 50 microns dry 9.3 m <sup>2</sup> /litre at 75 microns dry Allow for loss in mixing and application.
<b>VOC Values</b>	<b>As Supplied :</b> 264 g/l Thinner 25 : 20% v/v 366 g/l  These are nominal values and may vary slightly with color.
<b>Dry Temp. Resistance</b>	Continuous: 149°C (300°F)  Some discoloration and loss of gloss may be experienced at elevated temperatures.
<b>Limitations</b>	Application method (ie spray v brush) may affect final colour tone and texture; 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.
<b>Topcoats</b>	Carbothane 130 Clear Coat when required for graffiti resistance (NZTA/AMA approved) or extreme weatherability

# Carbothane 134 HG

## PRODUCT DATA SHEET



### 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. For all surfaces prime and / or undercoat with specific Carboline coating as recommended in the relevant Coating Specification. Refer to the specific primer or undercoat Product Data Sheet for detailed requirements.
<b>Galvanised Steel</b>	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.
<b>Previously Painted Surfaces</b>	Lightly sand to roughen and degloss the surface. Existing paint must attain a minimum 3A rating in accordance with ASTM D3359 "X-Scribe" adhesion test. Prime with specific Carboline primers as recommended by your Carboline Sales Representative or Carboline specification.

### MIXING & THINNING

<b>Mixing</b>	Power mix Part A separately, then combine with Part B and power mix. DO NOT MIX PARTIAL KITS.
<b>Thinning</b>	Spray: Up to 20% w/ Thinner #25 Brush: Up to 20% w/ Thinner #22 Roller: Up to 20% w/ Thinner #22  Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.
<b>Ratio</b>	4:1 Ratio (A to B)
<b>Pot Life</b>	4 Hours at 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.
<b>Induction Time</b>	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. If pinholes or bubbles occur, an induction or sweat-in time of 30-60 minutes is recommended.

### 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.

<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. Spray equipment is available from manufacturers such as Binks, DeVilbiss and Graco.
<b>Conventional Spray</b>	Pressure pot equipped with dual regulators, 9.5 mm (3/8") I.D. minimum material hose, 1.8 mm (0.070") I.D. fluid tip and appropriate air cap.
<b>Airless Spray</b>	*Pump Ratio: 30:1 min. Output: 11 lt/minute min. Material Hose: 9.5 mm (3/8") I.D. min. Tip Size: 0.015-0.017" Output PSI: 2100-2400 Filter Size: 60 mesh  *Teflon packings are recommended and available from the pump manufacturer.

## 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.

<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 rerolling. For best results, tie-in within 10 minutes at 24°C.
<b>Brush</b>	Recommended for touch-up and small areas only. Use a medium, natural bristle brush.
<b>Roller</b>	Use a short-nap mohair roller cover with phenolic core.

## APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	10°C (50°F)	2°C (36°F)	2°C (36°F)	0%
Maximum	38°C (100°F)	49°C (120°F)	35°C (95°F)	80%

**Industry standards are for substrate temperatures to be above 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 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. If pinholes or bubbles occur, an induction or sweat-in time of 30-60 minutes is recommended.

## CURING SCHEDULE

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

These times are based on a 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 self-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.

Polyurethane Accelerator can be used to accelerate the film forming process in this product for conditions outside of the parameters of this data sheet. Polyurethane Accelerator is added at a rate of 5 ml per mixed litre or a maximum of 25 ml per mixed five litres. At this addition rate, Polyurethane Accelerator will accelerate the cure rate of the urethane product between 25-40% depending on the substrate temperature range and reduce the pot life of the product by approximately 40-50% of that stated on the product data sheet. With the use of Polyurethane Accelerator, this product will continue to cure at temperatures as low as -7°C.

## APPROVALS

<b>Approvals NZ/AU</b>	<b>Food Processing - New Zealand</b> AsureQuality® assessed for food/beverage industry including dairy factory and dairy farm non-incident contact (assessment reference number: h3112).
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## CLEANUP & SAFETY

<b>Cleanup</b>	Use Thinner #2, #25 or Acetone. In case of spillage, dispose of in accordance with local applicable regulations.
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# Carbothane 134 HG

## PRODUCT DATA SHEET



## CLEANUP & SAFETY

<b>Safety</b>	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.
<b>Ventilation</b>	<b>Contains iso-cyanate.</b> When sprayed may be harmful by inhalation - do not breathe vapour or spray. Wear suitable clothing, gloves, eye and face protection, including suitable breathing protection such as an air supplied respirator or hood. 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 vapour 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 suitable approved air-fed respirator.

## PACKAGING, HANDLING & STORAGE

<b>Shelf Life</b>	Part A: 36 months at 24°C Part B: 12 months at 24°C  Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers. For products/components exceeding the stated shelf life, contact Technical Services for further advice.
<b>Storage Temperature &amp; Humidity</b>	4°-43°C 0-80% Relative Humidity
<b>Flash Point (Setaflash)</b>	Carbothane 134 HG Part A: 10°C Carbothane 134 HG Part B: 41°C
<b>Shipping Weight (Approximate)</b>	5 Litre Kit - 6.6 kg 10 Litre Kit - 13.2 kg
<b>Storage</b>	Store Indoors.  This product is solvent based and not affected by excursions below these published storage temperatures, down to -10°C, 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.

## WARRANTY

Manufactured and / or distributed in Australia & New Zealand by Altex Coatings under license to Carboline Company. 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 Altex Coatings 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 or injuries resulting from use. Liability, if any, is limited to replacement of products. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY ALTEX COATINGS OR 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. Altex Terms and Conditions of Trade, available at [www.altexcoatings.com](http://www.altexcoatings.com), apply in respect of all coating products and materials supplied, including samples.