

SELECTION & SPECIFICATION DATA

Generic Type	Two-components aliphatic polyurethane.
Description	High build, glossy finish that has outstanding weathering resistance and colour retention. Suitable for application over a number of Carboline primers and intermediates, this material provides excellent corrosion resistance in a broad range of colours.
Features	<ul style="list-style-type: none"> • Outstanding performance properties in both mild and aggressive environments • High build; suitable for many two-coat systems • Suitable for application direct to inorganic zincs • Application by spray, brush or roller • Indefinite recoatability
Color	Most RAL colours and others upon request. Certain colours may require multiple coats to hide.
Finish	Gloss
Primer	Refer to Substrates & Surface Preparation
Wet Film Thickness	75 - 150 µm per coat, normally 110 µm.
Dry Film Thickness	50 - 100 microns (1.97 - 3.94 mils) per coat Normally 75 µm.
Solid(s) Content	By volume: 67 ± 2%
Theoretical Coverage Rates	8,9 m ² /l at 75 microns. Allow for loss in mixing and application
Dry Temp. Resistance	Continuous: 110°C (230°F) Non-Continuous: 130°C (266°F) Discoloration and loss of gloss may occur above 110°C.
Limitations	Not recommended for immersion service.
Topcoats	Normally none. May be topcoated with most generic types of paints like vinyls, acrylics, epoxies and polyurethanes.
Density	1.22 g/cm ³ depending on color

SUBSTRATES & SURFACE PREPARATION

General	Surface 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 by your Carboline sales representative. Refer to the specific primer's Product Data Sheet for substrate preparation requirements.
Galvanized Steel	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.
Aluminum	SSPC-SP1 ("Solvent Cleaning") and prime with appropriate Carboline primer as recommended by your Carboline sales representative.

Carbothane 133 HG

PRODUCT DATA SHEET



SUBSTRATES & SURFACE PREPARATION

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 your Carboline sales representative.
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MIXING & THINNING

Mixing	Power mix separately, then combine and power mix. DO NOT MIX PARTIAL KITS.
Thinning	Thin up to 12% with Carboline Thinner #31. Use of thinners other than those supplied by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.
Ratio	4 : 1 (A to B)
Pot Life	6 Hours at 20°C and less at higher temperatures.
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.

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 and Graco.
Airless Spray	<p>Pump ratio : 30:1 (min.) *</p> <p>GMP Output : 3.0 (min.)</p> <p>Material Hose : 3/8" I.D. (min.)</p> <p>Tip Size : .015-.019"</p> <p>Output PSI : 2100-2300</p> <p>Filter Size : 60 mesh</p> <p>* Teflon packings are recommended and available from the pump manufacturer.</p>
Brush & Roller (General)	Multiple coats may be required to obtain desired appearance, recommended dry film thickness and adequate hiding. Avoid excessive rebrushing or re-rolling. For best results, tie-in within 10 minutes at 24°C.
Brush	Recommended for touch-up only. Use a medium natural bristle brush.
Roller	Use a medium-nap synthetic roller cover with phenolic core.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	5°C (41°F)	0°C (32°F)	0°C (32°F)	0%
Maximum	40°C (104°F)	45°C (113°F)	45°C (113°F)	85%

Industry standards are for substrate temperatures to be 3°C above the dew point. Special application techniques may be required above or below normal application conditions.

* By adding Carbothane Accelerator (100 ml pr 20 ltr kit) the product can be applied down to ÷ 7°C.

CURING SCHEDULE

Surface Temp.	Final Cure	Minimum Recoat Time	Tack Free
5°C (41°F)	28 Days	36 Hours	12 Hours
10°C (50°F)	14 Days	18 Hours	6 Hours
20°C (68°F)	7 Days	12 Hours	4 Hours
30°C (86°F)	4 Days	8 Hours	2 Hours

These times are based on 50 - 100 microns 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 #25. If the surface shows a slight "tack" the surface is suitable for recoating without extensive surface preparation such as abrading.

CLEANUP & SAFETY

Cleanup	Use Carboline 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.
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 applicable regulations. In areas where explosion hazards exist, workmen should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

PACKAGING, HANDLING & STORAGE

Shelf Life	Part A: 36 months at 24°C Part B: 24 months at 24°C
Storage Temperature & Humidity	5° - 45°C 0 – 95% relative humidity
Storage	Stores indoors.
Packaging	Part A : 16 litres Part B : 4 litres

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PRODUCT DATA SHEET



WARRANTY

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