Carbocoat 139

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Polyurethane modified alkyd
Description	Modified polyurethane industrial enamel for broad use on interior and exterior metal surface where a durable, easy-to apply, single pack coating is desired.
Features	• One component product • Excellent flexibility • Good abrasion resistance • Can be applied by Airless- and conventional spray, roller and brush • Good color and UV resistance
Color	RAL, BS, Munsell etc. Certain colours may require multiple coats to hide.
Finish	Gloss
Primer	Alkyd, Epoxy and others specified by Carboline.
Dry Film Thickness	50 micron per coat. Do not exceed 75 micron in a single coat.
Solid(s) Content	By volume: 50% ± 2%
Theoretical Coverage Rates	9,8m²/l at 50 micron. Allow for loss in mixing and application.
VOC Values	**As Supplied** : 400 g/l These are nominal values and may vary slightly with color.
Dry Temp. Resistance	Continuous: 82°C (180°F) Non-Continuous: 104°C (219°F)

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 on the coating.
Steel	Sa 2½ with a 25-50 micron surface profile for maximum performance and use of specified Carboline primer. St2, St3 en Sa1 are also acceptable methods with use of specific Carboline primer.
Previously Painted Surfaces	Lightly sand or abrade to roughen surface and degloss the surface. Existing paint must attain a minimum 3B rating in accordance with ASTM D3359 “X-Scribe” adhesion test.

MIXING & THINNING

Mixing	Power mix until uniform in consistency. Avoid excessive air entrapment.
Thinning	Spray: may be thinned up to 13% with Thinner 99. Brush & Roller: may be thinned up to 10% with Thinner 99. Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.

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.
Conventional Spray	Pressure pot equipped with dual regulators, 3/8” I.D. minimum material hose, .043” I.D.fluid tip and appropriate air cap.
Airless Spray	Pomp Ratio: 30:1 (min.) GPM Output: 3.0 (min.) Material Hose: 3/8” I.D. (min.) Tip Sizet: .013-.017” Output BAR: 140-155 Filter Size: 60 mesh Teflon packings are recommended and available from the pump manufacturers.
Brush & Roller (General)	Multiple coats may be required to obtain desired appearance, recommended dry film thickness and adequate hiding.
Brush	Use a medium bristle brush.
Roller	Use a good quality roller with phenolic core.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	4°C (39°F)	4°C (39°F)	4°C (39°F)	5%
Maximum	43°C (109°F)	74°C (165°F)	38°C (100°F)	95%

Substrate temperatures should be 3°C above the dew point. This product is moisture sensitive in the liquid stage and until fully cured. 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.

CURING SCHEDULE

Surface Temp.	Tack Free	Dry to Recoat	Final Cure Time
10°C (50°F)	8 Hours	8 Hours	72 Hours
24°C (75°F)	2 Hours	4 Hours	48 Hours
32°C (90°F)	1 Hour	1.5 Hours	24 Hours

These times are based on 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.

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.

CLEANUP & SAFETY

Ventilation	When used in enclosed areas, thorough air circulation must be used during and after applicationuntil the coating is cured. The ventilation system should be capable of preventing the solvent vaporconcentration from reaching the lower explosion limit for the solvents used. In addition to ensuringproper ventilation, appropriate respirators must be used by all application personnel.

PACKAGING, HANDLING & STORAGE

Shelf Life	24 months at 24°C *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in originalunopened containers.
Shipping Weight (Approximate)	5 Liter 6,6 Kg 20 Liter 26,4 Kg
Storage Temperature & Humidity	4º-43ºC 0-100% Relative Humidity
Flash Point (Setaflash)	35°C
Storage	Store indoors

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.