

SELECTION & SPECIFICATION DATA

Generic Type	Alkyd Enamel
Description	A quick-dry, general purpose air dry enamel that is an easy-to-use finish coat. Carbocoat 45 has exceptional application characteristics and fast dry properties. When used with an appropriate primer provides very good protection of steel substrates in mild to moderate exposures. It can be used for both new construction or maintenance.
Features	<ul style="list-style-type: none"> • Smooth, attractive, high-gloss finish • Good weatherability, gloss and color retention • Excellent application characteristics; spray, brush, or roll • Quick dry to handle times • VOC-compliant for most areas
Color	Available in Rapid Tint Service; See Carboline Color Chart
Finish	High Gloss
Primer	Typically applied over Alkyd Primers
Dry Film Thickness	2 - 3 mils (51 - 76 microns) per coat Do not exceed 4.0 mils (100 microns) in a single coat.
Solids Content	By Volume 50% +/- 2%
Theoretical Coverage Rate	802 ft ² /gal at 1.0 mils (19.7 m ² /l at 25 microns) 401 ft ² /gal at 2.0 mils (9.8 m ² /l at 50 microns) 267 ft ² /gal at 3.0 mils (6.6 m ² /l at 75 microns) Allow for loss in mixing and application.
VOC Values	As Supplied : 3.5 lbs./gal (419 g/l) Thinner 10 : 5 oz 3.75 lbs/gal 449 g/l These are nominal values and may vary slightly with color.
Dry Temp. Resistance	Continuous: 200°F (93°C) Non-Continuous: 250°F (121°C) Slight discoloration and loss of gloss is observed above 200°F (66°C).
Limitations	Not for immersion applications or splash and spillage of acids, alkalies or solvents.

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 of the coating.
Steel	Apply over properly primed steel.

MIXING & THINNING

Mixing	Power mix until uniform in consistency.
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Carbocoat[®] 45 Industrial Enamel

PRODUCT DATA SHEET



MIXING & THINNING

Thinning | Normally not required. May be thinned up to 5 oz per gallon (4%) with Thinner 10. 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 (General) | The following spray equipment has been found suitable and is available from equipment manufacturers.

Conventional Spray | Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, 0.052" I.D. fluid tip and appropriate air cap.

Airless Spray | Pump Ratio: 30:1 (min.)*
GPM Output: 3.0 (min.)
Material Hose: 3/8" I.D. (min.)
Tip Size: 0.015-0.019"
Output PSI: 1800-2700
Filter Size: 60 mesh
*PTFE packings are recommended and available from the pump manufacturer.

Brush & Roller (General) | Avoid excessive re-brushing or re-rolling.

Brush | Use a medium bristle brush.

Roller | Use a short-nap roller.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	35°F (2°C)	35°F (2°C)	35°F (2°C)	0%
Maximum	120°F (49°C)	120°F (49°C)	120°F (49°C)	95%

This product simply requires the substrate temperature to be above the dew point. Condensation due to substrate temperatures below the dew point can cause flash rusting on prepared steel and interfere with proper adhesion to the substrate. Special application techniques may be required above or below normal application conditions.

CURING SCHEDULE

Surface Temp.	Dry to Handle	Dry to Recoat	Dry to Touch
50°F (10°C)	24 Hours	24 Hours	60 Minutes
75°F (24°C)	7 Hours	4 Hours	45 Minutes
90°F (32°C)	4 Hours	4 Hours	30 Minutes

These times are based on a 3.0 mil (75 micron) dry film thickness. Higher film thickness, insufficient ventilation, high humidity or cooler temperatures will require longer cure times and could result in solvent entrapment or premature failure. Adhesion develops over a period of time. Wait 30 days before doing adhesion testing.

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 SDS for this product. Employ normal workmanlike safety precautions. Use adequate ventilation and wear gloves or use protective cream on face and hands if hypersensitive. Keep container closed when not in use.
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 respirator.
Caution	This product contains flammable solvents. Keep away from sparks and open flames. In confined areas workers must wear fresh airline respirators. All electrical equipment and installations should be made and grounded in accordance with the National Electric Code. In areas where explosion hazards exist, workers should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

PACKAGING, HANDLING & STORAGE

Shelf Life	Min. 24 months at 75°F (24°C) *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
Storage Temperature & Humidity	40° -110°F (4°-43°C) 0-100% Relative Humidity
Storage	Store indoors
Shipping Weight (Approximate)	1 Gallon - 11 lbs. (5.0 kg) 5 Gallons - 55 lbs. (25.2 kg)
Flash Point (Setaflash)	81°F (27°C)

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.