

Selection & Specification Data

Generic Type	Alkyd Enamel.
Description	A high solids, general purpose air dry enamel that is used as a protective finish coat and formulated to meet the needs and requirements of the Rail Industry. Carbocoat 59 may be applied direct to metal or as a topcoat over Carbocoat 55.
Features	<ul style="list-style-type: none"> ▪ Smooth, attractive, high gloss finish. ▪ Direct-to-metal application if desired. ▪ Very good weatherability, gloss and color retention. ▪ Outstanding application characteristics. ▪ Economical, fast dry. ▪ Good flexibility. ▪ Impact and abrasion resistant. ▪ VOC-compliant for most areas.
Colors	Gray, black, white and other colors available on request.
Finish	Gloss
Primers	Self-priming or Carbocoat 55. Can also be applied over most alkyd, epoxy, polyurethane or others as recommended. A test patch is recommended over existing coatings.
Dry Film Thickness	3.0-4.0 mils (75-100 microns) direct-to-metal in a single coat. Do not exceed 4.0 mils (100 microns) in a single coat.
Solids Content	By Volume: 50% ± 2%
Theoretical Coverage Rate	800 mil ft ² (21 m ² /l at 25 microns) 266 sq. ft. at 3 mils (7 sq. m/l at 75 microns) Allow for loss in mixing and application
VOC Values	As supplied: 3.4 lbs./gal (408 g/l) Thinned:
Dry Temp. Resistance	Continuous: 200°F (66°C) Non-Continuous: 250°F (82°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 Direct-to-metal	SSPC-SP6 Blast Profile should not exceed 3.0 mils (75 microns).

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:

Spray Application (General)	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, .052" I.D. fluid tip and appropriate air cap.												
Airless Spray	<table> <tr> <td>Pump Ratio:</td> <td>30:1 (min.)</td> </tr> <tr> <td>GPM Output:</td> <td>3.0 (min.)</td> </tr> <tr> <td>Material Hose:</td> <td>3/8" I.D. (min.)</td> </tr> <tr> <td>Tip Size:</td> <td>.015-.019"</td> </tr> <tr> <td>Output PSI:</td> <td>1800-2700</td> </tr> <tr> <td>Filter Size:</td> <td>60 mesh</td> </tr> </table> Teflon packings are recommended and available from the pump manufacturer.	Pump Ratio:	30:1 (min.)	GPM Output:	3.0 (min.)	Material Hose:	3/8" I.D. (min.)	Tip Size:	.015-.019"	Output PSI:	1800-2700	Filter Size:	60 mesh
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Brush & Roller (General)	Avoid excessive re-brushing or re-rolling.												
Brush	Use a medium bristle brush.												
Roller	Use a short-nap roller.												

Mixing & Thinning

Mixing	Power mix until uniform in consistency.
Thinning	Normally not required. May be thinned 6 oz/gal (5%) w/ Carbocoat Thinner in high temperature conditions to reduce dry spray and lap marks. Use of thinners other than those supplied or recommended by Carboline may adversely affect product performance and void product warranty, whether expressed or implied.

Carbocoat 59

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. Use adequate ventilation and wear gloves or use protective cream on face and hands if hypersensitive. Keep container closed when not in use.

Caution This product contains flammable solvents. Keep away from sparks and open flames. In confined areas, workmen 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, workmen should be required to use non-ferrous tools and wear conductive and non-sparking shoes.

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.

Application Conditions

Condition	Material	Surface	Ambient	Humidity
Normal	50°-90°F (10°-32°C)	55°-90°F (13°-32°C)	55°-100°F (13°-38°C)	30-90%
Minimum	35°F (2°C)	35°F (2°C)	35°F (2°C)	0%
Maximum	120°F (49°C)	165°F (74°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. & 50% Relative Humidity	Dry to Touch	Dry to Handle
75°F (24°C)	2 Hours	4-6 Hours

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.

Packaging, Handling & Storage

Shipping Weight (Approximate) 5 Gallon 55 lbs. (25 kg) 55 Gallons 600 lbs. (275 kg)

Flash Point (Setaflash) 45°F (7°C)

Storage (General) Store Indoors.

Storage Temperature & Humidity 35° -110°F (2°-43°C)
0-100% Relative Humidity

Shelf Life Min. 12 months at 75°F (24°C)

***Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.**

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