

Selection & Specification Data

Generic Type	Cycloaliphatic amine epoxy.
Description	High solids, high-build potable water coating widely used for lining interior steel and concrete tanks, valves and pipe. Formulated for application at conventional builds (100 – 150 microns per coat) as well as high builds (250 microns per coat).
Features	<ul style="list-style-type: none"> • Excellent film build and edge protection • VOC compliant to current AIM regulations • Meets or exceeds all requirements of: <ul style="list-style-type: none"> • ANSI/NSF Std. 61 for potable water tanks of 1000 gallons or larger • AWWA D102 Inside System 1 and 2 • AWWA C210 for use interior of steel water pipe • Complies with FDA 21CFR 175.300 criteria for food contact • Statens Institutt for Folkehelsa for potable water service
Color	Most RAL colours. White and grey only for potable water applications.
Finish	Gloss
Primers	Self-priming
Topcoats	Acrylics, Epoxies, Polyurethanes for non-immersion applications.
Dry Film Thickness	100 – 250 microns per coat. Do not exceed 425 microns per system for potable water applications.
Solids Content	By volume: 75 ± 2%
Theoretical Coverage Rate	5,0 m ² /l at 125µm Allow for loss in mixing and application.
Dry Temp. Resistance	Continuous: 121°C Non-continuous: 149°C Discoloration and loss of gloss is observed above 93°C.
Wet Temp. Resistance	Immersion temperature resistance depends upon exposure. Consult Carboline Technical Service for specific information. It is recommended that metal tanks operating above 60°C be insulated.
Limitations	Epoxies lose gloss, discolor and eventually chalk in sunlight exposure.

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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	<u>Immersion:</u> ISO 8501-1 Sa 2½ <u>Non-immersion:</u> ISO 8501-1 Sa 2 <u>Surface profile:</u> 40 – 75 microns
Concrete	<u>Immersion:</u> Concrete must be cured at 28 days at 24°C and 50% relative humidity or equivalent. Prepare surfaces in accordance with ASTM D4258 Surface Cleaning of Concrete and ASTM D 4259 Abrading Concrete. Voids in concrete may require surfacing.

Performance Data

Test Method	System	Results	Report #
ANSI/NSF Std. 61	Blasted Steel 2 cts. 891	Pass	09434
AWWA C210 Specification	Blasted Steel 2 cts. 891	Pass	03457

Test reports and additional data available upon written request.

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.

Spray Application (General)	The following spray equipment has been found suitable and is available from manufacturers such as Binks, DeVilbiss and Graco.
Airless Spray	Pump ratio: 30:1 (min.) * GMP Output: 3.0 (min.) Material Hose: 3/8" I.D. (min.) Tip Size: .017-.021" Output PSI: 2100-2300 Filter Size: 60 mesh
	* Teflon packings are recommended and available from the pump manufacturer. Use 45 : 1 pump ratio for elevated applications and ½" I.D. for hose lengths greater than 60'.
Brush & Roller (General)	Not recommended for tank lining applications except when striping welds. Multiple coats may be required to obtain desired appearance, recommended dry film thickness and adequate hiding. Avoid excessive re-brushing or re-rolling. For best results, tie-in within 10 minutes at 24°C.
Brush	Use a medium bristle brush.
Roller	Use a short-nap synthetic roller cover with phenolic core.

Mixing & Thinning

Mixing	Power mix separately, then combine and power mix. DO NOT MIX PARTIAL KITS.
Ratio	1 : 1 (A to B)
Thinning	Spray: Up to 6% with Thinner #2 (NSF Std. 61 approved) Brush: Up to 13% with Thinner #33 (Non-NSF Std. 61) Roller: Up to 13% with Thinner #33 (Non-NSF Std. 61)
Pot Life	Use of thinners other than those supplied by Carboline may adversely affect product performance and void product warranty, whether expressed or implied. Material begins to lose film build in 90 minutes at 24°C, and less at higher temperatures.

Cleanup & Safety

Cleanup	Use #2 Thinner 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.
Ventilation	When used as a tank lining or 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.
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.

Application Conditions

Condition	Material	Surface	Ambient	Humidity
Normal	16-29°C	16-29°C	16-32°C	0-80%
Minimum	10°C	10°C	10°C	0%
Maximum	32°C	52°C	43°C	85%

Industry standards are for substrate temperatures to be 3°C above the dew point. Condensation due to substrate temperatures below the dew point can interfere with proper adhesion to the substrate. Special application techniques may be required above or below normal application conditions.

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Curing Schedule

Surface Temp. & 50% Relative Humidity	Dry to Recoat	Dry to Topcoat w/Other Finishes	Final Cure For Immersion Service	Maximum Recoat Time
10°C	12 Hours	24 Hours	N/R*	60 Days
16°C	8 Hours	16 Hours	10 Days	30 Days
24°C	4 Hours	8 Hours	5 Days	30 Days
32°C	2 Hours	4 Hours	3 days	15 Days

These times are based on 100 - 150 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. Excessive humidity or condensation on the surface during curing can interfere with the cure, can cause discoloration and may result in a surface haze. If the maximum recoat time is exceeded, the surface must be abraded by sweep blasting or sanding prior to the application of additional coats. For force curing, contact Carboline Technical Service for specific requirements. *Note: Final cure temperatures below 16°C are not recommended for tank linings.

Packaging, Handling & Storage

Kit Standard	Part A 10 litres Part B 10 litres
Storage (General)	Store indoors.
Storage Temperature & Humidity	5° - 45°C 0 - 95% relative humidity
Shelf Life	Part A: 36 months at 24°C Part B: 24 months at 24°C

Note

This product shall only be used as a single-coat or in a system with other recommended Carboline products. Otherwise an approval shall be issued by Carboline.



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