

Selection & Specification Data

Generic Type	Phenalkamine Modified Epoxy		
Description	<p>Carboguard 235 is a phenalkamine modified, surface-tolerant, epoxy specially formulated for application as a ballast-coat lining for marine and other severe service industrial environments. It can also be used for the exterior of fuel storage tanks and oil tanks. This product is also suitable for fresh and salt water immersion resistance. This high solids, high performance epoxy conforms to MIL-PRF-23236B(SH) Type IV, Class 2, Grade B and provides superior performance compared to conventional epoxy systems. It can be used at low temperatures down to 0°F.</p>		
Features	<ul style="list-style-type: none"> ▪ Surface tolerant properties ▪ Excellent as a ballast tank lining ▪ Fast and low-temperature cure ▪ Excellent general service epoxy ▪ Excellent maintenance primer ▪ Available in low temp cure (LT) version ▪ Available in a high abrasion resistant (HAR) version; (65 mg loss; Tabor Abrasion test) 		
Color	Black; Buff; Gray; Red Oxide, Blue		
Finish	Semi Gloss		
Primers	Self priming		
Topcoats	Topcoat for improved weathering or chemical resistance		
Dry Film Thickness	4-8 mils (100-200 microns) dry film thickness per coat		
Solids Content	By Volume: (235) 67% ± 2% (235 LT) 64% ± 2% (235 HAR) 69% ± 2% (235 HAR-LT) 65% ± 2%		
Theoretical Coverage Rate	1026-1106 ft ² /gal @ 1 dry mil Allow for loss in mixing and application.		
VOC Values	<u>As Supplied</u>	<u>Thinner and Amount</u>	<u>VOC Thinned</u>
235	2.34 lbs/gal (280 g/l)	#248 @15 oz/gal	2.83 lbs/gal (340 g/l)
235 (LT)	2.50 lbs/gal (300 g/l)	#248 @10 oz/gal	2.83 lbs/gal (340 g/l)
235 HAR	2.30 lbs/gal (276 g/l)	#248 @16 oz/gal	2.83 lbs/gal (340 g/l)
235 HAR (LT)	2.51 lbs/gal (301 g/l)	#248 @9 oz/gal	2.81 lbs/gal (337 g/l)

Substrates & Surface Preparation

General	All surfaces must be thoroughly cleaned to remove dirt, grease, mill scale, loose rust, and any other contaminants that can reduce adhesion.
Steel	Atmospheric Exposure – SSPC-SP3 power tool cleaning or SSPC-SP12 WJ-3 Immersion Exposure – SSPC-SP10, 2-3 mil profile
Concrete and Masonry	Atmospheric Exposure – SSPC-SP13/NACE6 Immersion Exposure – SSPC-SP13/NACE 6-4.3.1 or 4.3.2
Special Information:	Do not apply if material, substrate or ambient temperature is below 0°F or above 120°F. Material should be 40°F for best performance. Substrates below 32°F may be frost covered. Do not apply coating to frost or ice. Exterior exposure causes color change, gloss loss and chalking, however, this does not affect protective performance properties.

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) Apply using airless spray, conventional spray, brush or roller. Stripe coat crevices, welds, and sharp angles for best performance. Brush and roller application may require several coats to achieve uniform film thickness and appearance. Use a 50% overlap with each pass when spraying to eliminate holidays and pinholes.

Conventional Spray DeVilbiss MBC-50 gun, E fluid tip, 704 nozzle, 60-65 psi atomization pressure, 5-15 psi fluid pressure.

Airless Spray Apply using a 30:1 pump able to deliver 3000 psi.
Hose: 1/4" I.D. (min.)
Tip Size: .015-.019"
High Pressure Filter: 60 Mesh

Brush Natural bristle or nylon/polyester

Roller 3/8" woven/phenolic core

Mixing & Thinning

Mixing Ratio 4:1 by volume (Part A to Part B)

Mixing Thoroughly mix each component separately, then combine and mix well using mechanical agitation.
Induction Time: Allow 15 minutes induction time at 77°F or 30 minutes at 40°F. Do not mix more than can be applied during the product's useful pot life.

Thinning May be thinned with Thinner 248. Follow thinning amounts as outlined under "VOC Values".

Pot Life (235) 4 hours @ 77°F

Cleanup & Safety

Cleanup Cleanup all tools and equipment promptly with Thinner #248 or #2.

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.

Curing Schedule

Surface Temp. & 50% RH	Dry to Touch	Dry to Handle or Recoat	Maximum Dry to Recoat for Immersion	Dry Hard
40°F (4°C)	4 hours	12 hours	30 days	14 days
75°F (24°C)	2 hours	4 hours	15 days	7 days
90°F (32°C)	1 hours	2 hours	7 days	4 days

These times are based on a 6.0 mil (150 micron) dry film thickness. Higher film thickness, insufficient ventilation, high humidity or cooler temperatures will require longer cure times.

Packaging, Handling & Storage

Shipping Weight (Approximate) **5 Gal Kit**
58-64 lbs (26-29 kg)

Flash Point (Setaflash) (235) 106°F mixed

Storage (General) Store in dry protected area.

Storage Temperature & Humidity 40-110°F; 0-90% RH

Shelf Life (all versions) Part A: 24 months
Part B: 24 months

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



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