

SELECTION & SPECIFICATION DATA

Generic Type	Amino Cured Epoxy
Description	High build, airless-applied, solvent free coating for use on steel and concrete substrates. Widely used as a splash zone coating on marine installations, tank lining in petroleum services and for protection of buried pipelines. Has good impact, abrasion resistance and is suitable for variety heavy industrial applications. Carboguard 703GF (glass flake) is specially formulated for higher abrasion resistance while retaining the temperature, chemical and other physical properties of Carboguard 703.
Features	<ul style="list-style-type: none"> • High film build and edge protection. • Excellent resistance to corrosion and abrasion. • May be used in conjunction with cathodic protection. • Application by airless spray equipment (plural component acceptable but not required). • Meets most VOC (Volatile Organic Content) regulations.
Color	Grey, Buff
Finish	Eggshell
Primer	Self-priming
Dry Film Thickness	400-3125 microns (16-125 mils) Depending on the expected conditions of service.
Solid(s) Content	By Volume: 98% ± 2%
Theoretical Coverage Rates	39.0 m ² at 25 microns (1572 mil ft ²) Allow for loss in mixing and application.
VOC Value(s)	As supplied: 28.47 g/l This is a nominal value and may vary slightly depending on the color.
Dry Temp. Resistance	Continuous: 93°C (199°F) Non-Continuous: 121°C (250°F) Gloss losses and discoloration are observed above 93°C.
Limitations	Epoxies may lose gloss, discolor and chalk when exposed to sunlight.
Topcoats	Normally not required. Polyurethanes for non-immersion service, when a finish is required.
Wet Temp. Resistance	Resistance to temperature under immersion depends on the type of exposure. Contact the technical service for specific information.

SUBSTRATES & SURFACE PREPARATION

General	The surface must be clean and dry. Use an appropriate method to remove dust, oils, and other contaminants, which may interfere with the adhesion of the product.
Steel	immersion: ISO 8501-1 Sa 3 (SSPC-SP5) – Roughness profile 76 - 127 (3-5 mils) Non-Immersion: ISO 8501-1 Sa 2½ (SSPC-SP10) – Roughness profile 51 - 76 (2-3 mils)

Carboguard 703 GF

PRODUCT DATA SHEET



SUBSTRATES & SURFACE PREPARATION

Concrete	Immersion and Non-Immersion:
	Concrete must be cured 28 days at 75°F (24°C) and 50% relative humidity or equivalent. Prepare surfaces in accordance with ASTM D4258 Surface Cleaning of Concrete and ASTM D4259 Abrading Concrete. Voids in concrete may require surfacing.

MIXING & THINNING

Mixing	Power mix separately, then combine and power mix. DO NOT MIX PARTIAL KITS.
Thinning	Not recommended. Thin only if necessary up to 10% of Thinner 21 and for hot and windy conditions, use Thinner 33 up to 10%
Ratio	5:1 Ratio (A to B) by volume + 1 bag Glass Flakes 2.50 kg (1 liter) / 15 liter (4 Galon) mix
Pot Life	Approx. 30 minutes at 24°C (75°F). Pot life ends when material begins to thicken and starts to heat up. Pot life times will be less at higher temperatures.

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	Recommended for application by single or plural component airless spray. This is high solids coating and may require adjustments in spray techniques. Wet film thickness is easily and quickly achieved. The following spray equipment has been found suitable and is available from manufactures such as Binks, DeVilbiss and Graco.
Conventional Spray	Not recommended
Airless Spray	Pump Ratio: 45:1 (min.) GPM Output: 3.0 (min.) Material hose: ½" I.D. (min.) Tip Size: 0.035-0.042" Output PSI: 2700-3000 Filter Size: Not recommended Teflon packing are recommended and available from the pump manufacturer. Contact Carboline Technical Service for plural component equipment recommendations.
Brush & Roller (General)	Not recommended for tank lining applications except when striping welds.
Brush	For touch up and limited areas only.
Roller	For touch up and limited areas only.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	50°C (122°F)	50°C (122°F)	50°C (122°F)	0%
Maximum	90°C (194°F)	125°C (257°F)	110°C (230°F)	90%

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. To reduce out gassing when applying to concrete substrates, do not apply in direct sunlight or when surface temperatures are increasing. Best results are obtained when ambient and surface temperatures are decreasing or constant.

CURING SCHEDULE

Surface Temp.	Dry to Recoat	Maximum Recoat Time	Final Cure Immersion
16°C (61°F)	24 Hours	2 Days	14 Days
24°C (75°F)	8 Hours	1 Day	10 Days
32°C (90°F)	6 Hours	16 Hours	7 Days

Second coat or build-up coat may be applied as soon as the first coat is tacky. These times are based on a 20 mil (500 micron) dry film thickness. Higher film thickness, insufficient ventilation or cooler temperatures will require longer cure times. Condensation on the surface or humidity above 25% during application and curing will result in a surface haze or blush. Any haze or blush must be removed by water washing before recoating. During high humidity conditions, it is recommended that the application be done while temperatures are increasing. If the maximum recoat times is exceeded, the surface must be washed with detergent and water, then abraded by sweep blasting prior to the application of additional coats. For force curing, contact Carboline Technical Service for specific requirements. *Note: Final cure temperatures below 60°F (16°C) are not recommended for tank linings.

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 (PDS) and on the safety data sheet (SDS) 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	Vapors and/or spray mist may cause explosion. 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. In addition to ensuring proper ventilation, appropriate respirators must be used by all application personnel.
Caution	Contains flammable solvents, keep away from flames and sparks. All electrical installations must be grounded. In areas where there is a danger of explosion, operators must use non-ferrous tools and non-sparking shoes.

PACKAGING, HANDLING & STORAGE

Shelf Life	18 months at 24°C (75°F)
Storage Temperature & Humidity	4-43°C (40° -110°F) 0-100% Relative Humidity

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PACKAGING, HANDLING & STORAGE

Flash Point (Setaflash)	Part A: > 96°C (205°F)
	Part B: > 96°C (205°F)

Storage	Store Indoors.
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WARRANTY

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