

SELECTION & SPECIFICATION DATA

Generic Type	Two components, Epoxy - Amine.
Description	<p>Carboguard 102 is a very high solids self-priming coating. Excellent corrosion resistance product to marine/chemicals environments. Used for the corrosion protection of buried tanks and pipes. SP-2882 is the same as and identical to Carboguard 102.</p>
Features	<ul style="list-style-type: none"> • Very high solids "Solvent-less", self-priming coating • Excellent corrosion resistance to marine/chemical environments • Excellent corrosion resistance to buried pipes and tanks • Excellent resistance to mechanical and abrasion damage • Excellent resistance to cathodic disbondment • Excellent resistance to electric insulation (12000 volts/mm)
Color	<p>Green</p> <p>Before Mixing: Component Base (part A): yellow Component Hardener (part B): blue</p>
Finish	Semi-Gloss
Primer	<p>Self-priming.</p> <p>May be applied over old coats such as polyethylene, polypropylene, bitumen or itself.</p>
Wet Film Thickness	<p>from 1,000 up to 3,000 micron</p> <p>Wet on wet, in single coat. May be applied in a single coat wet on wet at standard dry film thickness of 1,500 micron. Maximum dry film thickness, wet on wet: 3,000 micron.</p>
Dry Film Thickness	from 1,000 up to 3,000 micron.
Typical Uses	<p>Recommended for long term high resistance, such as:</p> <ul style="list-style-type: none"> • External surfaces for sea lines and pipelines, buried or immersed in sea and fresh water. • External coating for elbows, valves, joints, fittings etc., buried or immersed in sea and fresh water. • Piles and structures coating of steel and concrete piers. • Jackets coating of off-shore platforms. • Coating of immersed areas, topsides, splash zone of any steel or concrete surface to be immersed in sea or fresh water. • Lining of tanks designed to contain industrial or brackish water, crude oil or refined petroleum products. • Lining coat for penstocks. • External/Internal coat for sea water inlets. <p>Immersion: For Immersion service, consult Carboline Italia Technical Service, for specific recommendations, regarding fluids types, film thickness etc.</p>
Solid(s) Content	<p>By volume: 98 % ± 2 %</p>

Carboguard 102

PRODUCT DATA SHEET



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Theoretical Coverage Rates	0.98 sq.m./lt. at 1.000 micron 0.65 sq.m./lt. at 1.500 micron 0.49 sq.m./lt. at 2.000 micron 0.32 sq.m./lt. at 3.000 micron
VOC Values	As Supplied : 70 g/l
Dry Temp. Resistance	Dry temp. Resistance: da: -20 °C a: +110 °C. (14 - 230°F) Dry Buried Temp. Resistance: Continuous: 80°C (176°F)
Limitations	When exposed to atmospheric agents, condensation or ultraviolet rays, it will discolor, chalk and lose gloss as all epoxy.
Viscosity	Thixotropic product

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. Must be applied on steel or concrete, and old coats such as polyethylene, polypropylene, bitumen and itself properly prepared. May be applied over old coats such as polyethylene, polypropylene, bitumen or itself after suitable power tool cleaning or light blasting for roughness.
Steel	In shop: grit blasting in accordance with ISO8501-1 (SA 2 ½) to obtain a blast profile between 60-70 micron(Rz-DIN 30671) On site: sand blasting or other equivalent abrasives in accordance with ISO 8501-1 (SA 2 ½) to obtain a blast profile between 40-50 micron(Rz-DIN 30671)
Concrete or CMU	Concrete must be cured 28 days at 24°C/75°F (75°F) 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.
Special Instruction	SMALL up to 200 sq./cm. Without substrate exposure. Power tool grinding of damaged areas and application by brush of one coat of Carboguard 104 up to specified DFT. LARGE or SMALL areas with substrate exposure. Blast in accordance with ISO 8501-1 (SA 2 ½) of all exposed substrate and roughing the close coating and then apply Carboguard 102 / Carboguard 104 up to specified DFT

MIXING & THINNING

Mixing	Power mix separately Component Base and Hardener, then combine and mix to obtain a homogeneous green color.
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MIXING & THINNING

Thinning	Carboguard 102 has not to be thinned.
Ratio	<p>by Volume: Component Base: 1,75 Component Hardener: 1</p> <p>by Weight: Component Base: 1,5 Component Hardener: 1</p>
Pot Life	<p>60 minutes at 25°C (77°F) and less at higher temperatures. Pot-Life ends when coating increases viscosity.</p> <p>CAUTION: The reaction between the two components is exothermic; so the mixture at the end of the pot-life grows heat.</p>

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.

General	<p>Carboguard 102 has been formulated solvent less and may need particular arrangements during spray procedures in accordance with ambient temperature and equipment type. The following information should help the applicator for a proper use of spraying equipment.</p>
Airless Spray	<p>During airless application, Carboguard 102 must have a temperature between 20-29°C . During winter we recommend to heat the product by water bath to reach above cited temperatures. Excessive heating reduce pot-life. The following airless equipment has been found suitable: Pump Type: Graco King (standard) Pump Ratio 68:1 LPM output 12 liters minimum Material Hose 3/8" ID minimum Max. Hose length 15 mt. (if not insulated and heating). Tip Size .018-.025" ID Reverse Clean Output Atm. 272 minimum For a correct pump use, it is necessary to remove the rubber suction tube, or to install an hopper connected directly to the suction with a rigid connection. Do not use all the filters with which the pump is fitted, only in the case where the hopper is installed, so to interpose one filter not less than 30 mesh directly between the hopper itself and fitting. The minimum working compression ratio is 60: 1, it is possible to use pumps with lower ratios, provided the flow rates are equivalent at least.</p> <p>The required thickness is obtained by multiple pass technique (wet on wet). Frequently measure WFT that should be at least 10% higher than recommended DFT to be sure that the cured film is not below the specified one.</p>
Brush & Roller (General)	For touch-up only of SMALL areas Without substrate exposure.

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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.

Brush	Use a medium bristle brush. One coat of Carboguard 104 up to specified DFT.
Roller	Not recommended.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	20°C (68°F)	10°C (50°F)	10°C (50°F)	0%
Maximum	32°C (90°F)	32°C (90°F)	32°C (90°F)	85%

Do not apply when the surface temperature is less than 3°C (5°F) above the dew point.

Inspection and tests, such as adhesion, holiday test, impact test and DFT measurements, must be done only when hardness Shore D reaches a value of 70±2.

CURING SCHEDULE

Surface Temp.	Dry to Handle	Final Cure Time
20°C (68°F)	48 Hours	7 Days
30°C (86°F)	24 Hours	7 Days

Curing:

Temperature of the Mix: 20°C

Hardness: Min. Shore D: 65 ± 3

Hardness: Min. Final Shore D: 78 ± 2

Temperature of the Mix: 30°C

Hardness: Min. Shore D: 65 ± 3

Hardness: Min. Final Shore D: 78 ± 2

Carboguard 102 is not recoatable without special surface preparation when it has Shore D value higher than 65.

CLEANUP & SAFETY

Cleanup	The pumps must be cleaned every time the application is interrupted, even for short periods. Flush into the Thinner # 2 or Thinner # 76 system until it comes out clean and without residues or colored. In case of spillage, absorb and dispose 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 safety precautions. Hypersensitive persons should wear protective clothing, gloves and use protective cream on face, hands and all exposed areas.
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.

CLEANUP & SAFETY

Caution	<p>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 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.</p> <p>The reaction between the two components is exothermic; so the mixture at the end of the pot-life grows heat.</p>
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PACKAGING, HANDLING & STORAGE

Shelf Life	<p>Component Base (part A): 18 months at 24°C (75°F) Component Hardener (part B) : 18 months at 24°C (75°F)</p> <p>*Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.</p>
Storage Temperature & Humidity	<p>4 - 35 °C (39 - 95 °F) 0 - 90% RH</p>
Flash Point (Setaflash)	<p>Component Base (part A): 27°C Component Hardener (part B): 31°C</p>
Storage	<p>Store Indoors.</p>
Packaging	<p>Component Base (part A): 12,75 liters Componente Hardener (part B): 7,25 liters</p>

WARRANTY

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