Carboguard 940

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Two component epoxy amine.
Description	**Carboguard 940** is a very high solids self priming coating. The applied coating, after curing is extremely hard and resistant to abrasion. Excellent resistance to fresh and sea water.
Features	• Excellent resistance to abrasion damage. • Immersion service in sea and fresh water. • Immersion service in potable water (tanks and pipes). • Suitable in contact with water for human consumption. • Regulation (EU) No. 10/2011 Verification of compositional conformity • REGULATION (EC) n° 1935/2004 • ITALIAN MINISTERIAL DECREE OF 21st MARCH 1973 (ORDINARY SUPPLEMENT TO OFFICIAL GAZETTE n° 104 OF 20th APRIL 1973) AND ITALIAN PRESIDENTIAL DECREE n° 777 OF 23rd AUGUST 1982 AND AMENDMENTS AND CHANGES; DM 174/2004. • Approved for contact with dry food simulant E standard EN 1186-1 and 13 Regulation (EU) No 10/2011
Color	White.
Finish	Gloss Will discolor, chalk and lose gloss in sunlight exposure.
Dry Film Thickness	400-700 µm (16-28 mils): applied in one coat, wet on wet. For higher coats, contact the Technical Service Carboline.
Solid(s) Content	By Volume: 98% +/- 2%
Theoretical Coverage Rates	500 µm : 1.96 sq.m./lt. Allow for loss in mixing and application. Product reduction during curing up to 5% by volume.
Dry Temp. Resistance	Continuous: 90°C (194°F) Non-Continuous: 110°C (230°F)
Substrates & Compatable Coatings	Must be applied over properly prepared steel or concrete.
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.
Steel	Abrasive blast cleaning in accordance with ISO8501-1 SA 3, to obtain a minimum 40 µm (Rz-DIN 30671) blast profile.
Concrete	Concrete must be cured 28 days at 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 with epoxy coatings.

SUBSTRATES & SURFACE PREPARATION

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 940 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 940 by spray up to specified DFT

MIXING & THINNING

Mixing	Power mix separately Part A and Part B, then combine and mix under slow agitation. DO NOT MIX PARTIAL KITS.
Thinning	THINNING IS NOT REQUIRED. Thinner use may cause the detachment of applied coating, voiding the results of all tests such adhesion and resistance.
Ratio	By Volume: Part A: 1,5 Part B: 1
Pot Life	60 minutes at 24°C (75°F) and less at higher temperatures. Pot-Life ends when coating increases viscosity.

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	**Carboguard 940** has been formulated without solvent and can require, depending on environmental temperatures and on the spraying equipment used, particular adjustments of spray techniques. The following guide lines should help the applicator in using correctly the spraying equipment.

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.

Airless Spray	In cold periods the components must be previously heated in a bain-marie, with heating bands or other suitable system designed to reach the minimum temperatures required. **Excessive heating reduces pot life.** Pump Ratio: 60:1 LPM output: 12 liters minimum Material Hose: 3/8” ID minimum Max. Hose length 20 mt. Tip size: .023-.028 (Reverse Clean Type) Output Atm. 180-220 minimum . *Teflon packings are recommended and available from the pump manufacturer. . 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. The required thickness is obtained by multiple pass technique (wet on wet). Frequently measure WFT to be sure that the cured film is not below the specified one.
Brush & Roller (General)	For touch-up only of SMALL areas without substrate exposure.
Brush	Use a medium bristle brush. One coat of Carboguard 940 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)	43°C (109°F)	43°C (109°F)	80%

Industry standards are for substrate temperatures to be 3 °C(5°F) above the dew point. Special application techniques may be required above or below normal application condition.

CURING SCHEDULE

Surface Temp.	Dry to Handle	Minimum Recoat Time	Maximum Recoat Time	Final Cure
10°C (50°F)	72 Hours	36 Hours	72 Hours	14 Days
20°C (68°F)	48 Hours	10 Hours	24 Hours	10 Days
30°C (86°F)	24 Hours	5 Hours	12 Hours	5 Days

CARBOGUARD 940 is not recoatable without special surface preparation when curing completed

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 workmanlike 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.
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 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

PACKAGING, HANDLING & STORAGE

Shelf Life	part A: 24 months at 24 °C (75 °F) part B: 24 months at 24 °C (75 °F) *Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
Storage Temperature & Humidity	4-35°C (40-95°F) RH%: 0-90%
Flash Point (Setaflash)	part A: 123°C part B: 123°C
Storage	Store indoors.
Packaging	part A: 6 lit. part B: 4 lit.

WARRANTY

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