Carboguard® 510 SG

PRODUCT DATA SHEET

SELECTION & SPECIFICATION DATA

Generic Type	Epoxy Modified Cementitious Mortar
Description	A epoxy surfacing mortar that exhibits excellent bond strength to concrete and other masonry surfaces. Typically top coated with without the need for further preparation. It is ideally suited for filling voids in prepared new concrete or for resurfacing deteriorated concrete. Formulated for easy application with hand trowel or spray application. Acceptable for use concrete storage tanks for potable water, when top coated with an NSF approved lining. Contact your representative for additional information.
Features	• Improved chemical resistance over ordinary Portland cement products • Surface Saturated Dry (SSD) not required • Can be used in damp or in high moisture vapor transmitting (MVT) environments • Low odor • Excellent abrasion, and impact resistance • Long recoat window • Self-priming over concrete
Color	Dark Gray
Primer	Self-priming to concrete and masonry surfaces.
Dry Film Thickness	0.2 inches (6350 microns) per coat Normal 1/4 inch (6350 microns) per coat to resurface substrate. Thicknesses greater than 1/4 inch may require application techniques as described under Substrates & Surface Preparations.
Theoretical Coverage Rates	3-gallon mixed unit will yield approximately 39 ft^2 at 1/8” thick.
VOC Values	**As Supplied** : < 0.10 lbs/gal (12 g/L) **EPA Method 24** (calculated minus water and exempt solvents)
Limitations	Epoxies may lose gloss, discolor and chalk when exposed to sunlight.
Topcoats	May be coated with Vinyl Esters, Epoxies, Polyurethanes, or Polyureas depending on exposure and need.

SUBSTRATES & SURFACE PREPARATION

General	Surface must be free of standing water. Employ adequate methods to remove dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating.
Concrete or CMU	• Concrete shall be designed, placed, cured, and prepared per NACE No. 6/SSPC-SP 13. • The PH of the concrete substrate must a minimum of 8.5 prior to application. • Substrate must be structurally sound and free of loose or deteriorated concrete. Mechanically abrade the surface to achieve a surface profile of CSP-4 or greater in accordance with ICRI Guidelines. • Profiled area must be cleaned after preparation. **CMU:** Mortar joints should be thoroughly cured for a minimum of 15 days at 75 °F (24 °C) and 50% relative humidity or equivalent. (compaction)

MIXING & THINNING

Mixing	Mixing can be done by a handheld mortar mixer with square or cage style mixing blade. Power mix Parts A and B together. For ease of mixing, slowly add the cement powder first, followed by the sand. Power mix until uniform. While it is not usually needed, up to 6oz of water can be added once the mix has been fully incorporated to aid in workability.
Pot Life	45-60 minutes at 75 °F (24 °C) **If the mix begins to thicken in a pail during application, simply reagitate with to re-shear and lower the 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.

Spray Application (General)	Spray application: Hopper-fed, Piston Pumps or Rotor Stator Pumps capable of 600 psi fluid pressure and 6 GPM output. Material hoses should be 1 inch or larger and no longer than 100ft. Applicator nozzle Should be 3/16 inch or larger. — Hand application: Rounded edge finishing trowels and rubber floats or other concrete finishing tools can be used. Troweling inside and outside corners are most commonly finished using a radius or margin trowel. Smooth trowel marks and provide uniform surface texture by finishing with a damp sponge.

APPLICATION CONDITIONS

Condition	Material	Surface	Ambient	Humidity
Minimum	50°F (10°C)	50°F (10°C)	50°F (10°C)	0%
Maximum	90°F (32°C)	125°F (52°C)	110°F (43°C)	90%

This product simply requires the substrate temperature to be above the dew point. Special application techniques may be required above or below normal application conditions. Note: When conditions such as excessive wind and high ambient temperatures exist, cover the area with polyethylene sheeting

CURING SCHEDULE

Surface Temp.	Minimum Recoat Time	Light Traffic	Maximum Recoat Time	Heavy Traffic	Ultimate Physical Characteristics
75°F (24°C)	12 Hours	24 Hours	7 Days	48 Hours	28 Days

These times are based on up to 1/2" thickness at 70 °F (21 °C). Higher film thickness, insufficient ventilation or cooler temperatures will require longer cure times. During high humidity conditions, it is recommended that the application be done while temperatures are increasing.
It is recommended that Carboguard 510 SG is finished with a damp sponge or stiff brush to provide surface roughness/profile similar to the minimum surface required by the topcoat to maximize intercoat adhesion. **The maximum recoat time with an approved solvent based epoxy is 60 days at 85 °F (29 °C). The maximum recoat time with an approved 100% solids coating is 7 days at 85 °F (29 °C)**. If recoat times are exceeded it will be necessary to abrade the surface to create sufficient mechanical anchor profile. Remove all contaminants prior to topcoating.

CLEANUP & SAFETY

Cleanup	Use scouring pads and water. 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 SDS for this product. Employ normal safety precautions. Use adequate ventilation and wear gloves or use protective cream on face and hands. Keep container closed when not in use.
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. 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.

PACKAGING, HANDLING & STORAGE

Packaging	Carboguard 510SG Part A - 1.5 quarts in a gallon can Carboguard 510SG Part B - 3 quarts in a gallon can Carboguard 510SG Part C - 11 lbs of Portland cement and 32.5 lbs of sand in a plastic 5 -gal pail.
Shelf Life	24 months at 75 °F (24 °C) *Shelf L ife: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.
Storage Temperature & Humidity	50-90 °F (10-32 °C) **Do not freeze.**
Storage	Store Indoors.
Shipping Weight (Approximate)	3.06 Gal. Kit - 55 lbs (25 kg)
Flash Point (Setaflash)	Part A >200 °F (93 °C) Part B >200 °F (93 °C) Aggregate, Sand and Cement: Not applicable.

WARRANTY

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