

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.

- · 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

Features

- · 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.

0.2 inches (6350 microns) per coat

Dry Film Thickness

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 ft² at 1/8" thick.

As Supplied: < 0.10 lbs/gal (12 g/L)

VOC Values

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 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.

Concrete or CMU

• 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)

Carboguard[®] 510 SG

PRODUCT DATA SHEET



MIXING & THINNING

Mixing can be done by a handheld mortar mixer with square or cage style mixing blade.

Power mix Parts A and B together.

45-60 minutes at 75 °F (24 °C)

Mixing 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.

This has been fully incorporated to aid in workability

Pot Life

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:

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.

Spray Application (General)

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.



Carboguard[®] 510 SG

PRODUCT DATA SHEET

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

Carboquard 510SG Part A - 1.5 quarts in a gallon can Carboquard 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.

24 months at 75 °F (24 °C)

Shelf Life

*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

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact Carboline to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. Carboline warrants our products to be free of manufacturing defects in accord with applicable Carboline quality control procedures. THIS WARRANTY IS NOT VALID WHEN THE PRODUCT IS NOT: (1) APPLIED IN ACCORDANCE WITH CARBOLINE'S SPECIFICATIONS, AND/OR (2) PROPERLY STORED, CURED, AND USED UNDER NORMAL OPERATING CONDITIONS. Carboline assumes no responsibility for coverage, performance, injuries, or damages resulting from use of the product. If this product is found not to perform as specified upon inspection by a Carboline representative during the warranty period, Carboline's sole obligation, if any, is to replace the Carboline product(s) proven to be defective or refund the purchase price thereof, at Carboline's sole option. Carboline shall not be liable for any other losses or damages. This warranty excludes (1) labor and costs of labor for the application or removal of any product, and (2) any incidental or consequential damages, whether based on breach of express or implied warranty, negligence, strict liability or any other legal theory. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. All of the trademarks referenced above are the property of Carboline International Corporation unless otherwise indicated. The whole text of this Product Data Sheet, as well as the documents derived from it, have been written in English, and for legal purposes the English version shall prevail.