

# Semstone

PRODUCT DATA SHEET

#### SELECTION & SPECIFICATION DATA

Generic Type | Rubberized epoxy membrane

Semstone 806 is a 100% solids, low odor, rubberized epoxy. It is used as a chemically resistant membrane for concrete. When reinforced with our flexible fabrics it provides a system which will bridge working cracks as well as expansion joints. When reinforced with Semstone 100 fabric, it can bridge crack expansion joint movement up to 1/2" without cracking.

#### Description

This product is a self-leveling material. However, it maybe used as a high build coating system by the addition of a third component, Semstone Thixotrope D, which is a non-silica Thixotrope. When using reinforcing fabric. Thixotrope D is not required.

Concrete slabs with severe cracking problems, as well as all construction and expansion joints, may be treated using Semstone 806 with #100 Fabric. This is ideal for use as a secondary containment membrane.

- Flexible
- · Abrasion Resistant

#### **Features**

- · Chemical Resistant
- Waterproof
- Suitable for use in USDA inspected facilities

Color | Grev

**Primer** | Optional

50 - 60 mils (1270 - 1524 microns) (after saturation of Fabric #100)

# **Dry Film Thickness**

Thicknesses listed represent finish thicknesses after saturation of fabric. Over-saturation of the fabrics will increase finish thicknesses and decrease coverage rates.

Solids Content | By Volume 100%

#### **Coverage Rate**

Coverage will be effected by the condition of the surface being coated (degraded vs. smooth, steel vs. concrete, etc.) and the ability of the applicators to maintain a consistent thickness. To figure THEORETICAL coverage per gallon, divide desired mil thickness into 1604. The result will be the number of square feet per gallon. The thickness of the coating system will vary depending on which fabric is used.

#### **Theoretical Coverage** Rate

1600 ft²/gal at 1.0 mils (39.3 m²/l at 25 microns) 32 ft²/gal at 50.0 mils (0.8 m²/l at 1250 microns) 27 ft²/gal at 60.0 mils (0.7 m²/l at 1500 microns) Allow for loss in mixing and application.

VOC Values | As Supplied : 2 g/l

# SUBSTRATES & SURFACE PREPARATION

### General

Surfaces must be dry and free of dirt, dust, oil, grease, chemicals and other contaminants immediately prior to each application of Semstone 806.

#### **Incidental Steel**

#### Steel

Equipment base plates, etc. to be coated along with the concrete should be abrasive blasted to a commercial finish with a low 1-2 mil (25-51 microns) anchor profile. (Ref. SSPC-SP-6)

# Semstone<sup>®</sup> 806





#### SUBSTRATES & SURFACE PREPARATION

Concrete or CMU

Concrete shall be designed, placed, cured, and prepared per NACE No. 6/SSPC-SP 13, latest edition. Abrade to remove all laitance, loose concrete, etc. and to create surface profile in accordance with the appropriate ICRI CSP standard for the coating system. The concrete is considered cured sufficiently for coating when it passes the moisture tests.

Previously Painted Surfaces 1. Ensure coating and bond integrity. 2. Soap and water wash the surface of the cured coating. 3. Roughen the surface by sanding or abrasive blasting. 4. Remove dust and debris.

### PERFORMANCE DATA

## All test data was generated under laboratory conditions. Field testing results may vary.

| Test Method                                | System       | Results   |
|--|--------------|---|
| Abrasion Resistance<br>(ASTM D-1044: neat) | Semstone 806 | 26 (mg loss)<br>(CS17 wheels - 1000<br>cycle, 1000 gram load)   |
| Bond Strength (ASTM D-4541)                | Semstone 806 | Concrete: cohesive failure in concrete 2" overlap joint strength reinforced with fabric: Exceeds tensile strength of system (>3500 psi) |
| Hardness<br>(ASTM D-2240 Shore A: neat)    | Semstone 806 | 55  |
| Tensile Elongation<br>(ASTM D-638: neat)   | Semstone 806 | 75%<br>Reinforced with fabric: 60%  |
| Tensile Strength<br>(ASTM D-638: neat)     | Semstone 806 | 1500-2000 psi<br>Reinforced with fabric: 3000-3500 psi  |

#### MIXING & THINNING

The Part A component must be individually agitated immediately prior to use. Part A - Blend each Part A component to a uniform consistency in its individual container, using a Jiffy type mixer. Part B - No need to agitate.

#### Mixing

Pour the entire contents of Part A into a clean container. Add Part B and mix thoroughly for two minutes using a Jiffy type mixer.

If using Part C for vertical surface application, add the pre-measured bag of Part C slowly to the mixed resins and hardeners and blend until the Part C has been evenly dispersed. The amount of Part C may be adjusted to meet job requirements. When using Semstone 806 in conjunction with reinforcing fabric it is not necessary to add Part C.

30-40 minutes at 75 °F (24 °C)

#### Pot Life

Significantly less time at elevated temperatures. The longer the material is in the bucket after mixing, the shorter its pot life will be. Use it immediately.

#### 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

The product may be applied by airless spray, notched trowel, squeegee, brush or roller. To make a trowel/caulk grade or putty, add Part C.



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**Spray Application** (General)

A single component airless rig can be used. See Equipment Specifications 397-251, Graco King.

Always use spray equipment in accordance with manufacturer's instructions.

# APPLICATION PROCEDURES

# General

Masking Mask surfaces that are not to be coated. Semstone 806 is difficult to remove once applied.

Apply to the prepared surface, primed or unprimed at a thickness of 40-50 mils (1.0-1.3 mm) on horizontal surfaces and 10-15 mils (0.3-0.4 mm) on vertical surfaces.

Immediately embed a layer of Reinforcing Fabric into the wet base coat. Use a short napped felt roller to work any trapped air out from under the fabric and cause the fabric to lay flat.

# Reinforced

Apply additional Semstone 806 to the surface of the fabric until the fabric is saturated with Semstone 806. When the fabric is completely saturated it will have a "sheen" finish to it and appear wet. The heavier fabrics will require more material to saturate than the lighter weight fabrics. It is very important that the applicator check the fabric frequently to look for dull, dry looking areas or spots as this is an indication that the fabric is not completely saturated, in which case more material will need to be applied before the system cures.

If work is interrupted, or at the end of the day, terminate the coating in a straight line.

Clean tie-in surfaces by soap and water washing before abrading.

Next day tie-in and spot repair is very easy. Simply abrade the surface using a wire brush and proceed with the application.

#### **Unreinforced Coating Applications**

# **Application**

Apply the SEMSTONE 806 using your preferred application tools. If work is interrupted, or at the end of the day, terminate the coating in a straight line.

#### **APPLICATION CONDITIONS**

| Condition | Material    | Surface      | Ambient      | Humidity |
|-----------|-------------|--------------|--------------|----------|
| Minimum   | 60°F (16°C) | 50°F (10°C)  | 50°F (10°C)  | 0%       |
| Maximum   | 90°F (32°C) | 110°F (43°C) | 110°F (43°C) | 85%      |
| Optimum   | 75°F (24°C) | 70°F (21°C)  | 70°F (21°C)  | 50%      |

The temperature of the surface to be coated, and the ambient air temperature should be at least 50 °F (10 °C) during installation and curing. 24-hours before application, all materials (components A, B, etc.) should be stored at 70-90°F (21-32°C) to aid in application.

#### CURING SCHEDULE

| Surface Temp. | Minimum Recoat Time | Maximum Recoat Time | Cure for Service |
|---------------|---------------------|---------------------|------------------|
| 50°F (10°C)   | 3 Days              | 4 Days              | 9 Days           |
| 75°F (24°C)   | 2 Days              | 3 Days              | 7 Days           |
| 90°F (32°C)   | 1 Day               | 2 Days              | 5 Days           |

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#### CLEANUP & SAFETY

Cleanup

Remove all masking tape from items masked for protection during installation. Before it gels, Semstone 806 may be cleaned from tools and equipment using hot, soapy water. After Semstone 806 gels, xylene or MEK will be required. Chlorinated solvents may be used if flammable solvents are not allowed.

Safety

Read and follow all caution statements on this product data sheet and on the SDS for this product. Employ normal workmanlike safety precautions. Use adequate ventilation. Keep container closed when not in use.

# PACKAGING, HANDLING & STORAGE

One Gallon Kit Part A: 0.84 gals

Part B: 0.2 gals

**Packaging** 

Five Gallon Kit Part A: 4.17 gals Part B: 1.0 gals

**Shelf Life** 

Minimum shelf life of one year, if properly stored.

Refer to batch number on label for date of manufacture.

Storage Temperature & **Humidity**  Store at 50-85 °F (10-29 °C) out of direct sunlight. The optimum temperature for material workability is 75-85 °F (24-29 °C).

Keep Semstone 806 components tightly sealed in their original containers until ready for use.

**Shipping Weight** (Approximate)

9.9 lbs per mixed gallon (1.2 kg per mixed liter)

Flash Point (Setaflash)

Part A: 309.2 °F (154 °C) Part B: 199.4 °F (93 °C)

# 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.