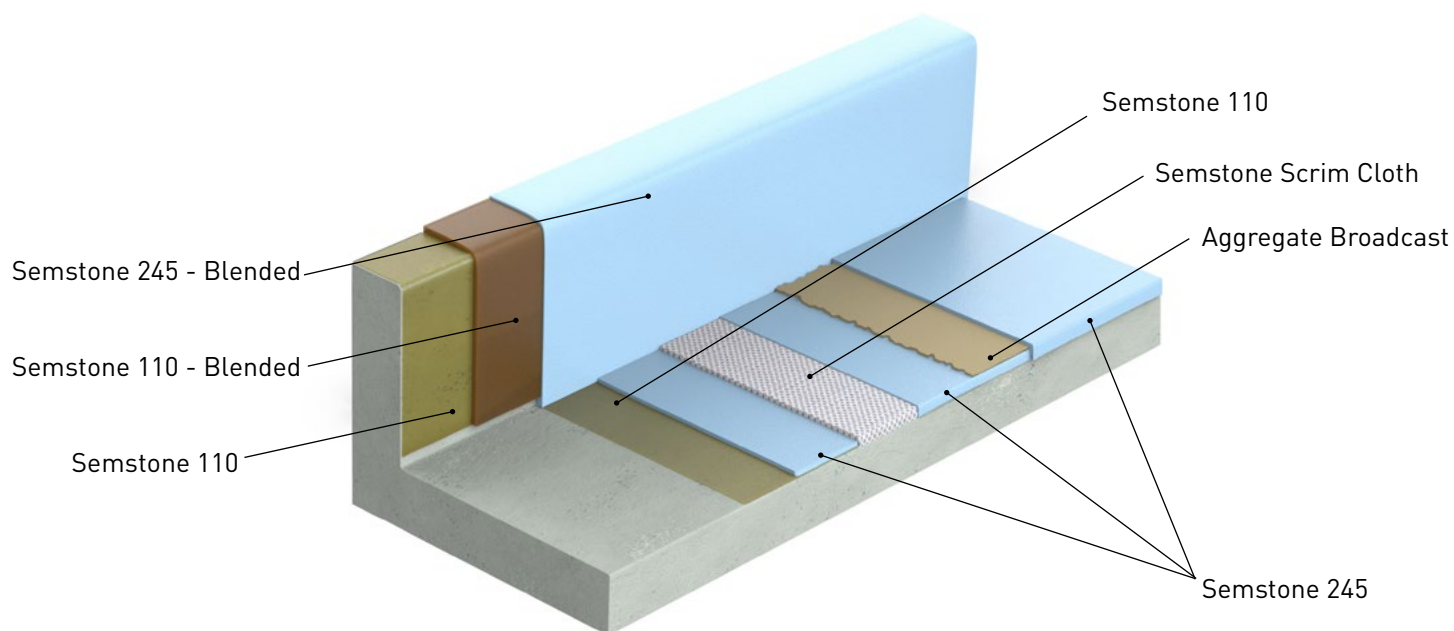


Semstone® 245 AFRC

SYSTEM INFORMATION SHEET



» **Aggregate filled reinforced coating system design for ultimate concrete protection in secondary containment areas.**

» **Reinforcement adds extra protection for containments with vehicular traffic.**

» **Typical uses include:**

- Process slabs
- Tank farm floors
- Chemical loading and unloading areas
- Spill containment areas

TEST METHOD	RESULTS
Hardness, Shore D (ASTM D2240)	80 (Semstone 245 neat)
Adhesion (ASTM D4541)	100% concrete failure
Compressive Strength (ASTM C579)	18,000 psi
Flexural Strength (ASTM D790)	14,000 psi
Flexural Modulus of Elasticity (ASTM D790)	9.4 x10 ⁵ psi

Semstone 245 AFRC

SYSTEM INFORMATION SHEET

HORIZONTAL SYSTEM

SYSTEM STEPS	PRODUCT	THICKNESS	THEORETICAL COVERAGE RATE	RATIO	APPLICATION EQUIPMENT
A. Primer	Semstone 110	8 -10mils	250 - 300 ft ² per 1.5 gallon kit	2:1 A:B	Medium nap roller
The mixed product can be poured out directly to the floor. Spread to the desired thickness with a medium nap roller. An optional light aggregate broadcast can be employed to protect the primer and extend maximum recoat times. Allow primer to cure to tack-free prior to continuing.					
B. Body coat	Semstone 245	20 - 25 mils	64 - 80 ft ² per gallon	4:1 A:B	Notched squeegee Medium nap roller
The mixed product can be poured out directly to the floor. Spread to the desired thickness with a notched squeegee, finish by backrolling with a medium nap roller.					
C. Reinforcement	Semstone Scrim Cloth	N/A	N/A	N/A	Medium nap roller Serrated roller or flat trowel
Unroll the scrim cloth evenly and carefully. Embed into the wet basecoat. Overlap seams a minimum of 1-1/2". Insure that all wrinkles and air are removed and that the cloth conforms to the surface.					
D. Saturant Coat	Semstone 245	25 - 30 mils	53 - 64 ft ² per gallon	4:1 A:B	Notched squeegee Medium nap roller
The mixed product can be poured out directly to the floor. Spread to the desired thickness with a notched squeegee, finish by backrolling with a medium nap roller. Make sure to completely embed Semstone scrim cloth.					
E. Aggregate fill	20/40 mesh aggregate		1.5 lbs per ft ²	N/A	N/A
Aggregate to be clean and dry. Broadcast aggregate evenly and achieve a dry beach sand appearance. Allow to cure until the system can support weight without disrupting the basecoat. Once cured, remove all excess aggregate.					
F. Topcoat	Semstone 245	15 - 20 mils	80-100 ft ² per gallon	4:1 A:B	Flat squeegee Medium nap roller
Apply Semstone topcoat with flat squeegee and back-roll with a medium nap roller. Allow to cure a minimum of 48 hours @ 75°F prior to putting the area in service. NOTE: The topcoat thickness can be adjusted to reflect more of an aggressive non-skid effect or a more cleanable effect. @ 15 mils, the surface would result in an aggressive non-skid. @ 20 mils, the surface would result in a good non-skid surface and easily cleanable. @ 25 mils, the surface will lose it's non-skid and be very cleanable					

INSTALL

This document is meant as a guideline for the installation of the Semstone 245 AFRC system. Contact Carboline Technical service for further assistance prior to the installation of a Semstone system.

MIXING

All mixing should follow the mixing instructions on the specific Semstone Product Data pages.

Semstone 245 AFRC

SYSTEM INFORMATION SHEET

VERTICAL APPLICATION

SYSTEM STEPS	PRODUCT	THICKNESS	THEORETICAL COVERAGE RATE	RATIO	APPLICATION EQUIPMENT
1. Primer	Semstone 110	5-6 mils	400- 480 ft ² per 1.5 gallon kit	2:1 A:B	Medium nap roller
The mixed product can be rolled directly onto the wall. Allow to cure to a tacky state (6-8 hours) prior to topcoating.					
2. Form void filler	Semstone 110 - Blended*	up to 1/8 inch	64 ft ² per 1.5 gallon kit @1/16 inch	2:1 A:B	Flat trowel
Blend Semstone 110 with a fine silica (80/120 mesh) and Semstone Thixotrope "D" (Cab-O-Sil TS-720) at a ratio of 1:1:1 by Volume. Use a flat trowel to work into the voids as a scratch coat. Provide a (1" - 1-1/2") - 45° Chamfer at all inside and outside corners. Additional silica will be required to form the chamfer. *Carboguard 510 is an acceptable substitute. Refer to Carboguard 510 system information sheets for installation instructions.					
3. Topcoat	Semstone 245 - Blended	25-32 mils	40 ft ² per gallon @25 mils** 51 ft ² per gallon @32 mils**	4:1 A:B	Flat trowel
Blend Semstone 245 with a fine aggregate (80-120 mesh) and Semstone Thixotrope "D" (Cab-O-Sil TS-720) at a ratio of 1 part Semstone 245 to 1 part fine aggregate to .5 part Thixatrop "D" by volume. If necessary, add Semstone Thixotrope Part "D" until the mixture hangs on a stir stick. Trowel apply @ 25 - 32 mils. Remove trowel marks with odorless mineral spirits on a clean trowel. **Coverage per blended gallon. For Chemical Service, allow to cure 48 hours @ 75°F prior to putting the area in service.					

SURFACE PREPARATION

Follow NACE 6/SSPC 13 guidelines. Concrete or screed substrate should be sound, free from laitance, dust, and other contamination with a minimum of 3,625 PSI compressive strength. The substrate should be dry and free from excess rising moisture. Abrade the surface to achieve an ICRI CSP 2-7 surface profile.

All control joints must be honored. Welded joints and cracks in the concrete may be coated, but if movement occurs the coating will also crack. All residues must be removed to provide a dry, dust free open textured surface. Contact Carboline Technical Service for further information.

CHEMICAL RESISTANCE

Semstone 245 has demonstrated excellent resistance to the following chemicals.

Acetic Acid<30%	Calcium Nitrate	Ethyl Bromide	Hydrogen Sulfide Gas	Oleic Acid
Acetone	Carbon Disulfide	Ethyl Chloride	Isopropyl Acetate	Phenol<85%
Aluminum Nitrate	Carbon Tetrachloride	Ethylene Glycol	Linseed Oil	Phosphoric Acid <85%
Ammonium Chloride	Chlorinated water	Glycerine	Lithium Chloride	Skydrol
Amyl Acetate	Chlorobenzene	Glycolic Acid	Maleic Acid	Sodium Hydroxide<50%
Amyl Alcohol	Citric Acid	Heptane	Methanol	Sodium Phosphate
Benzene	Dichlorobenzene	Hexane	Methylene Chloride	Sulfuric Acid <98%
Benzaldehyde	Diethylbenzene	Hydroiodic Acid<20%	Methyl Ethyl Ketone	Tall Oil
Boric Acid	Epichlorohydrin	Hydrobromic Acid<20%	Mineral Oil	White Liquor
Butanol	Ethyl Alcohol	Hydrochloric Acid<37%	Mineral Spirits	Vegetable Oil
Butyl Ether	Ethyl Benzene	Hydrofluoric Acid<48%	Naphtha	Water

NOTE:

The technical data presented in this document is accurate to the best of Carboline's knowledge based on laboratory testing of the product(s) or system(s) described. Actual results in the field may vary depending on field conditions and application methods. The performance characteristics stated do not constitute a guarantee or warranty that the products will meet the stated results under all circumstances. Contact Carboline technical staff with questions.



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