Abrasion Resistant Tank Lining

For FGD and other Severe Service

Semstone 870 (AFRC)

Aggregate-Filled Reinforced Vinyl Ester

Description

Semstone 870 AFRC is a high performance, vinyl ester lining system for high abrasion service. The vinyl ester resin has outstanding overall chemical resistance and very low permeability. The aggregate mix is a unique blend of high abrasion resistant fillers for performance and ease of use. In addition, a reinforcing mesh can be utilized to augment internal film strength for severe service. Semstone 870 AFRC is specially formulated to withstand some of industry's most aggressive chemicals, including a broad range of organic chemicals.

Physical Properties

Compressive Strength: ……..17,500 psi (ASTM C-579: AFC)

Tensile Strength….……..…..….Neat: 5,300 psi
(ASTM D-638) Reinforced: 10,000 psi

Flexural Strength…..……..…Neat: 8,200 psi
(ASTM D-790) Reinforced: 22,000 psi
(ASTM C-580) Aggregate Filled: 5,800 psi

Flexural Modulus of Elasticity...Neat: 10.9 x 10^5 psi
(ASTM D-790) Reinforced: 15.6 x 10^5 psi
(ASTM C-580) Aggregate Filled: 15.3 x 10^5 psi

Hardness…..…… Neat: 80 (ASTM D-2240, Shore D)

Abrasion Resistance … Less than 20 mg loss per 1000 cycle; ASTM D4060 (1000 gm load, CS-17 wheel)

Bond Strength……> 400 psi (100% concrete failure) (ASTM D-4541)

Water Vapor Transmission…….0.0120 grams/hr./ft^2 (ASTM E-96)

Permeability ……0.0042 perm. -in. (ASTM E-96)

Pot Life @ 75°F……..…..……45 to 60 min*

Cure Times @ 75°F (870)…..….Dry to Touch: 12 hrs
Firm: 24 hrs
Chemical Service: 48 hrs

Cure Times @ 60°F (870 CT)….Dry to Touch: 12 hrs
Firm: 24 hrs
Chemical Service: 48 hrs

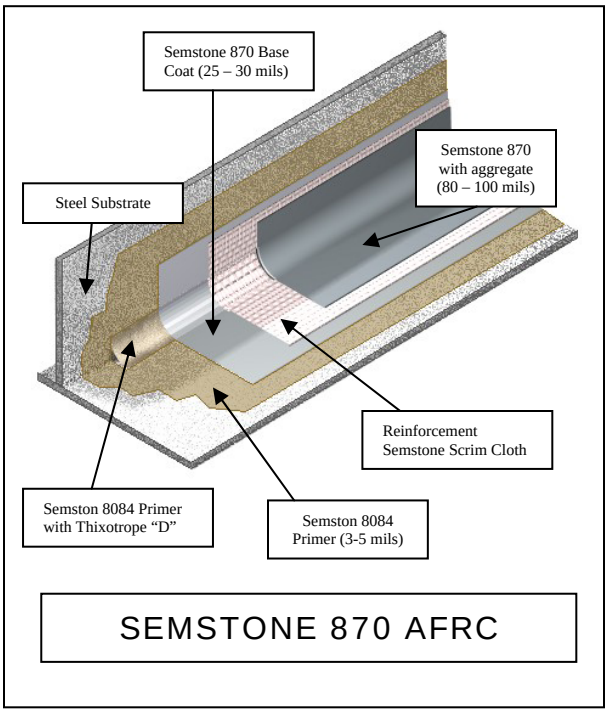
Features

- **Excellent resistance to chemical attack**
- **Excellent abrasion and impact resistance**
- **Exceptional thermal shock resistance**
- **Superior bonding qualities**
- **High cohesive strength**
- **Low permeability**
- **Low odor**

Uses

- **FGD Absorber Units**
- **FGD Absorber Drain Tanks**
- **Limestone Slurry Tanks**
- **Chemical Containment Areas**
- **Chemical Loading and Unloading Areas**

Tank Diagrams



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