

SELECTION & SPECIFICATION DATA

Generic Type	100% solids epoxy
Description	Sanitile 945 SL is a 100% solids, high performance, epoxy coating designed for concrete. Sanitile 945 SL is a selfleveling coating which may be applied as a neat, aggregate filled and/or reinforced coating system. Sanitile 945 SL is acceptable for use in USDA inspected facilities and is specially formulated to withstand some of industry's most aggressive chemicals.
Features	<ul style="list-style-type: none"> • Excellent resistance to chemical attack • Excellent abrasion and impact resistance • Exceptional thermal shock resistance • Superior bonding qualities • High cohesive strength • Low permeability • Low odor • Resistant to a variety of chemical solutions* <p>*Please consult chemical resistant chart or Carboline Technical Service Department for specific recommendations.</p>
Color	Standard colors: Off-white (1898), Medium Grey (C703), Light Grey (C705), Tan (0217), Blue (4169), and Tile Red (0516)
Primer	Semstone 110 Primer Note: For substrates with out-gassing concerns use Carboguard 1340. Primer should be applied while the substrate temperature is decreasing.
Dry Film Thickness	10 - 150 mils (254 - 3810 microns) per coat Application thickness may vary from 30-150 mils/0.75-3.8 mm, depending on expected service conditions (i.e., chemical exposure, temperature, traffic load and other mechanical abuse, splash-spill, etc.). Normally applied a minimum of 20 mils in one or two coats. Consult Carboline's Technical Service Department for specific thickness recommendations. In addition, coverage rates will be affected by the condition of the surface being coated (degraded vs. smooth, steel vs. concrete, etc.).
Typical Uses	<ul style="list-style-type: none"> • Process Areas • Tank Farm Floors • Production Areas • USDA inspected facilities • Spill Containment Areas • Light Manufacturing
Solids Content	By Volume 100%

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Coverage Rate	<p>Broadcast Application</p> <p>Base Coat</p> <p>60 mils (1.5 mm)- 64 ft²/gal 75 mils (1.9 mm)- 45 ft²/gal 125 mils (3.1 mm)- 32 ft²/gal</p> <p>Aggregate</p> <p>60 mils (1.5 mm)- 64 ft²/gal 75 mils (1.9 mm)- 45 ft²/gal 125 mils (3.1 mm)- 32 ft²/gal</p> <p>Topcoat - 15 mils</p> <p>60 mils (1.5 mm)- 64 ft²/gal 75 mils (1.9 mm)- 45 ft²/gal 125 mils (3.1 mm)- 32 ft²/gal</p> <p>Blended Application</p> <p>Sanitile SL Mortar - 125 mils - 20 ft²/gal</p>
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Theoretical Coverage Rate	<p>1604 ft²/gal at 1.0 mils (39.4 m²/l at 25 microns) 160 ft²/gal at 10.0 mils (3.9 m²/l at 250 microns) 11 ft²/gal at 150.0 mils (0.3 m²/l at 3750 microns) Allow for loss in mixing and application.</p>
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VOC Values | **As Supplied** : 0.02 lbs/gal (2 g/l)

SUBSTRATES & SURFACE PREPARATION

General	<p>Proper preparation is critical to ensure an adequate bond. The substrate <u>must</u> be dry and free of all wax, grease, oils, fats, soil, loose or foreign materials and laitance. Laitance and unbonded cement particles <u>must</u> be removed by mechanical methods, i.e., abrasive blasting or scarifying. Other contaminants may be removed by scrubbing with a heavy-duty industrial detergent and rinsing with clean water.</p> <p>Mask surfaces that are not to be coated. This material is difficult to remove once applied.</p> <p>For recommendations or additional information regarding substrate preparation, please contact Carboline's Technical Service Department.</p>
Steel	<p>Equipment base plates, etc. to be coated along with the concrete should be abrasive blasted to a near white metal finish (SSPC-10 or NACE-2) with a 1 to 2 mils anchor profile.</p>
Concrete or CMU	<p>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.</p>

PERFORMANCE DATA

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

Test Method	System	Results
Bond Strength	ASTM D-4541	400 psi(100% concrete failure)
Compressive Strength	ASTM C-579: AFC	13,500 psi
Flammability		Non-flammable
Flexural Modulus of Elasticity	ASTM D-790 ASTM C-580	Neat: 3.5 x 105 psi Reinforced: 6.1 x 105 psi Aggregate Filled: 9.7 x 105 psi
Flexural Strength	ASTM D-790 ASTM C-580	Neat: 7,200 psi Reinforced: 13,000 psi Aggregate Filled: 5,300 psi
Hardness	ASTM D-2240, Shore D	Neat: 70
Permeability	ASTM E96	0.0042 perm. -in.
Tensile Strength	ASTM D-638	Neat: 5,500 psi Reinforced: 7,800 psi
Water Vapor Transmission	ASTM E-96	0.0120 grams/hr./ft2

MIXING & THINNING

Mixing	Premix part A for 30 seconds using a Jiffy-type mixer. Pour part B into the part A and mix thoroughly for two minutes. DO NOT MIX PARTIAL KITS
Ratio	2.2:1 Mix Ratio by Volume
Pot Life	45-60 minutes @ 75 °F (24 °C)* *Significantly less at elevated temperatures.

APPLICATION PROCEDURES

General	<p>Neat Application A neat application is typically for thicknesses below 30 mils. Apply at the desired thickness using a notched squeegee. Back roll the Sanitile 945 SL with a spiked roller, this will assist in air release from the coating. When excessive out-gassing occurs, it has been found for best results to apply two coats with light sanding between coats</p> <p>Broadcast Application (AFC-Broadcast) Apply a base coat at the specified thickness using a squeegee or notched trowel. For a 60 mil (1.5 mm) system apply a 25 mil(0.63 mm) base coat and for a 125 mil(3.1 mm) system apply a 50 mil(1.3 mm) base coat. Immediately after applying the base coat begin broadcasting the aggregate until a dry appearance is achieved. Note: the use of a 20/40 mesh aggregate is recommended. One gallon of 20/40 mesh silica weighs 13-14 lbs. After the base coat has cured remove the loose aggregate. Apply a 10-15 mil(0.25-0.38 mm) top coat using a squeegee or roller.</p> <p>Blended Application (AFC-Blended) After mixing part A and B split the mix into two 5-gallon buckets. While continuing to mix with a Jiffy mixer, slowly add the aggregate. Note: A 2:1 sand to liquid weight ratio will produce a trowel-like consistency. A 3:1 ratio will give a grout-like consistency. The use of 20/40 mesh silica aggregate is recommended. One gallon of 20/40 mesh silica weighs 13-14 lbs. Apply the mixture at the desired thickness using a notched trowel. Note: The surface must be sanded prior to re-coating after an initial cure of 24 hours.</p> <p>Reinforced (AFRC-Broadcast) A fiberglass scrim cloth may be added to the 125 mil broadcast system. Apply the cloth into the base coat prior to applying the aggregate.</p> <p>Reinforced (AFRC-Blended) A fiberglass scrim cloth may be added to the 125 mil blended system. For the 125 mil blended system apply a 25-35 mil (0.63-0.88 mm) base coat and lay the fiberglass scrim cloth into the base coat. Allow the base coat to become tacky and then apply Sanitile 945 SL mortar at 90-100 mils. Note: Application of base coat, fiberglass scrim cloth, and mortar should be completed in the same day.</p> <p>For vertical applications contact Carboline's Technical Service Department.</p>
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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)	90°F (32°C)	90°F (32°C)	90%

Substrate temperature should be greater than 5 °F (3 °C) above dew point. For optimal working conditions, substrate temperature must be between 60 °F (15 °C) and 80 °F (27 °C). Measure the surface temperature with a surface thermometer. Cold areas must be heated until the slab temperature is above 50 °F (10 °C). This will allow the material to achieve a proper cure. Also, a cold substrate will make the material stiff and difficult to apply. Warm areas or areas in direct sunlight must be shaded or arrangements made to work during evenings or at night. A warm substrate (60-80 °F(15-27 °C)) will aid in the material's workability; however, a hot substrate (80-100 °F (27-37 °C)) or a substrate directly in the sun will shorten the material's working time and can cause other phenomenon such as pinholing and bubbling. If the temperature is expected to drop below 50 °F (10 °C) use Semstone 140 CT. Consult Carboline Technical Service if conditions are not within the recommended guidelines.

CURING SCHEDULE

Surface Temp.	Chemical Service	Dry to Touch	Foot Traffic
75°F (24°C)	36 Hours	12 Hours	24 Hours

* And 50% relative humidity

CLEANUP & SAFETY

Cleanup	MEK, Toluene or Xylene solvents are recommended for clean up of Sanitile 945 SL material spills. Use these materials only in strict accordance with the manufacturer's recommended safety procedures. Dispose of waste materials in accordance with government regulations.
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.
Ventilation	<ul style="list-style-type: none"> • The use of a NIOSH/MSHA approved respirator using a #TC-23C-738 organic vapor or a #TC-23C-740 organic vapor acid gas cartridge is mandatory. • Use only with adequate ventilation.

PACKAGING, HANDLING & STORAGE

Shelf Life	24 months for both Part A and Part B
Storage Temperature & Humidity	<p>Store all components between 40-110 °F (4-43 °C) in a dry area.</p> <p>Twenty-four hours before application, all components should be stored at 70-85 °F (21-29 °C) to facilitate handling</p>
Storage	Keep out of direct sunlight. Avoid excessive heat and do not freeze.
Shipping Weight (Approximate)	<p>1 Gallon Kit - 12 lbs (5.5 kg)</p> <p>5 Gallon Kit - 55 lbs (25 kg)</p>

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 Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance, injuries or damages resulting from use. Carbolines sole obligation, if any, is to replace or refund the purchase price of the Carboline product(s) proven to be defective, at Carbolines option. Carboline shall not be liable for any loss or damage. 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.