



ASBESTOS BRIDGING & PENETRATING ENCAPSULANT

SENTINEL ASBESTOS BRIDGING & PENETRATING ENCAPSULANT is designed to provide a permanent solution for the containment of asbestos-containing materials (ACM). Using Sentinel BPE on a properly planned and prepared project can stabilize damaged ACM, prevent deterioration that creates future hazards, and satisfy government regulations for asbestos abatement. Sentinel Asbestos Bridging & Penetrating Encapsulant is a water-based “superpaint” that has been formulated to solve concerns about asbestos. Sentinel BPE is a high solids, high-viscosity, multi-polymer emulsion. It is low-odor, ultra low-VOC (Volatile Organic Compounds), and contains no HAP’s (Hazardous Air Pollutants) or solvents. Ideal for Specifications AIA 02 82 00 Asbestos Remediation or AIA 02 82 13 ACM Encapsulation.



Use on many types of ACM including: Fireproofing (SFRM), Acoustical Soundproofing, Pipe Insulation (TSI), Cement Board on sloped or vertical surfaces, Galbestos, Stucco, Wall & Ceiling Texture and Asbestos Containing Paint.

Before Work Evaluation

Do not encapsulate materials that are delaminated, deteriorated or that show extensive damage that cannot be repaired. Read entire label before use. Appropriate use, necessary repairs, coverage rates and dry film thickness should be determined on site by a qualified asbestos professional. Testing to ensure the suitability of encapsulation as an abatement solution should be performed per ASTM E1494-18 Standard Practice for Testing Physical Properties of Friable Surfacing Materials. Service conditions determine which coatings may be used for specific application. These include: temperature, humidity, atmospheric exposure, etc.

Application Information

Do not disturb Asbestos Containing Materials when preparing for work. Perform repairs as directed, then ensure surfaces are clean. Mix Sentinel Asbestos Bridging & Penetrating Encapsulant thoroughly with a drill and mixing paddle before application.

Coverage

For bridging encapsulation: 100 sq. ft./gallon. It is recommended that applicators follow the US EPA’s primary instructions regarding coating thickness as stated in the “Purple Book” on asbestos [EPA Guidance for Controlling Asbestos-Containing Materials in Buildings (EPA 560 / 5-84024, June 1985)]: “No more than 100 sq. ft. / gal.” of “a continuous, unbroken coating” that is “considerably thicker than recommended for painting”. (3.78L per 9.3m²)

Coverage Continued

Ideal dry film thickness of Sentinel Asbestos Bridging & Penetrating Encapsulant at this coverage rate is 6 mils. The wet film thickness is 15-16 mils.

ACM can have a wide range of characteristics, including density, porosity, and surface profile. Higher adsorption from low density, highly porous ACM will reduce spread rates, requiring more coating.

Thinning and Tinting

Apply Sentinel Asbestos Bridging & Penetrating Encapsulant at full strength to bridge. When used as a penetrating encapsulant, mix 1:1 with clean water. Up to two (2) ounces of universal colorant per gallon may be added. Do not field tint.

Application Tools

Apply with professional level airless sprayers.*
Recommended **High-Pressure** Tip Size: .017
Recommended P.S.I.: 2500 - 3000 P.S.I.
Recommended **Low-Pressure** Tip Size: .017
Recommended P.S.I.: 1200 - 1500 P.S.I.

*Tested on a Titan Impack 440X Sprayer fitted with an RX-80 3600 PSI Spray Gun with a low pressure HEA TR1 517 tip.

Application : Penetrating

As a Penetrating Encapsulant: Mix Sentinel BPE using 1 part water to 1 part BPE. Mix thoroughly. Using airless spraying equipment and the settings above, spray the substrate until saturated. Allow time for the material to absorb into the substrate between passes, and spray until absorption stops.

Application : Bridging

As a Bridging Encapsulant: Using airless spraying equipment and the settings to the left, apply Sentinel BPE to the substrate at full strength.

Dry Time & Clean Up

Sentinel Asbestos Bridging & Penetrating Encapsulant will generally be dry to the touch in 2 hours and can be recoated after 4 hours.

Clean painting tools and spills with warm, soapy water while product is still wet. Clean spray equipment according to manufacturer directions. Remove cured encapsulant using Sentinel 206 Peroxystrip Paint & Coatings Remover.

Storage & Disposal

Protect Sentinel Asbestos Bridging & Penetrating Encapsulant from freezing. Store product in a dry location at temperatures between 40°F - 90°F. Dispose of excess product or empty container to a licensed waste handling facility in accordance with local, regional, national and/or international regulations.

Warranty

Seller makes no warranty, expressed or implied, nor accepts any responsibility for any direct or consequential damages beyond the purchase price because seller cannot control users handling and use, or effect of that use.

FORMULA



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TEST DATA

Sentinel Asbestos Bridging & Penetrating Encapsulant has been independently tested to demonstrate that it meets and surpasses frequently specified national and state/provincial requirements set out for abatement via encapsulation including: United States (Environmental Protection Agency), Canada (Health Canada, Canadian Centre for Occupational Health & Safety), the United Kingdom (Health Safety Executive), Australia (Asbestos Safety & Eradication Agency), and New Zealand (WorkSafeNZ). Performance Testing reports and data are available, including for key performance characteristics that were central to the Battelle evaluation done under EPA contract: impact resistance, minimized flame spread & smoke generation, no toxic gas release of concern during a fire, and lasting surface integrity.

Sentinel BPE Asbestos Bridging & Penetrating Encapsulant Surface Burning Characteristics (ASTM E84 & ASTM E2768):

Flame Spread Index: 0 (Class A rating)
Smoke Developed Index: 0 (Class A rating)

The **ASTM E84** and **ASTM E2768** were performed by a Nationally Recognized Testing Laboratory (NRTL). This test is parallel to the **UL 723** test. The product was applied at a coverage rate of 228 sq. ft. per gallon on inorganic reinforced cement board. The flame spread may vary when applied over other surfaces.

Sentinel BPE Asbestos Bridging & Penetrating Encapsulant meets **NFPA 90A** and **90B 25/50** requirements.

Sentinel BPE Asbestos Bridging & Penetrating Encapsulant tested to the maximum load without cracking in **ASTM D2794**, Direct Impact Resistance (inch-lbs); direct: 160 inch-lbs.

Sentinel BPE Asbestos Bridging & Penetrating Encapsulant passed **ASTM D522**, Mandrel Bend; 1/8", with no presence of cracking after bending.

Sentinel BPE Asbestos Bridging & Penetrating Encapsulant was tested to ASTM D3359, Adhesion Tape Test X Cut (5A best; 0A poorest):

- 4-day dry over gloss alkyd; 8 mils wet/2.3 mils dry: 4A
- 7-day dry over gloss alkyd; 8 mils wet/2.3 mils dry: 5A
- 7-day dry over 59% PVC flat; 3 mils wet/1.3 mils dry: 5A

Sentinel BPE Asbestos Bridging & Penetrating Encapsulant was tested to ASTM E662; Specific Optical Density:

- Flaming: 23%
- Non-Flaming: 35%

Sentinel BPE Asbestos Bridging & Penetrating Encapsulant meets **LEED** requirements for **EQ Credit 4.2** low emission materials, paints and coatings.

Sentinel BPE Asbestos Bridging & Penetrating Encapsulant meets the **21CFR 189 Substance Prohibited for use in Human Food** Requirements.

PROPERTIES

Physical State:	Liquid
Appearance:	Opaque
Color:	White
Odor:	Slight Acrylic
pH:	8.0 - 9.0
Flash Point:	>199.4°F
V.O.C. Content:	<5g/L (calc.)
Viscosity:	110 - 120 KU 2328 - 2976 CPS
% Solids by Weight:	55.21%
% Solids by Volume:	42.76%
Density:	10.7 pounds/gallon
Gloss:	10 - 15 (Eggshell)
Shelf Life:	36 Months
Coverage Rate:	As a Penetrating Encapsulant: Dependent on porosity of substrate. As a Bridging Encapsulant: No more than 100 sq. ft./gl.
Dry Time:	Dry to Touch: 1 - 2 hrs @70 - 77°F, 50% RH Recoat: 4 hrs @70 - 77°F, 50% RH

