



Asbestos Abatement Products



SerpiMastic™ Heavy Duty Asbestos Encasement Coating

Benefits

- Ultra durable
- Impact resistant
- Battelle Labs Tested per USEPA contract
- Weather and UV resistant
- Interior and exterior application
- High solids and high build formula
- Sprayable and trowelable options
- London Underground approved*

Product Description

SerpiMastic is a water-based, high-solids, high-performing mastic coating trusted worldwide for 4+ decades as an encapsulation/encasement solution that abates ACM (Asbestos-Containing Materials) and coats friable insulating materials to protect against physical damage and to seal in potentially hazardous particulates such as asbestos or some silica.

Indoors or outdoors, SerpiMastic is a tough, weather-resistant bridging encapsulant and protective membrane providing high impact protection. SerpiMastic inhibits friable fiber release and arrests deterioration on a wide range of building systems and structural surfaces: cement asbestos sheet or millboard used to form interior/exterior walls and sloped roofs); TSI

*Must be applied at an application rate not to exceed a dry film thickness of 1mm. See application instructions and installation notes for complete details on London Underground applications.

(Thermal System Insulation) and HVAC systems (e.g., boilers, pipe lagging, and duct exteriors); High density ACM or non-ACM cementitious Spray Applied Fireproofing (aka PFP, SFRM† over 39+ pcf); ACM-containing paint and stucco; ACM acoustical surfaces/soundproofing; previously painted popcorn ceilings; floor underlayments; Galbestos, and similar felt, textile and canvas ACM pressed into structural elements; and to lockdown over residual adhesive on floors** where tile or carpet has been removed.

Features

- Impact resistance of over 160 PSI; practically indestructible
- Exhibits excellent chemical resistance to help seal insulating materials and protect against the penetration of liquids
- Repairs damaged insulation. SerpiMastic adheres tenaciously to most insulation materials as well as other common construction surfaces
- Water-based, very low VOCs
- Can be used indoors and outdoors
- SerpiMastic is classified by Underwriter's Laboratories under category CBUI Encapsulants, and ICP participates in the UL stringent QA/QC inspection program for SerpiMastic manufacture

† PFP: Passive Fire Protection; SFRM: Sprayed Fire Resistive Material. SerpiMastic is ideal for high-density fireproofing with a look and feel as if concrete; and may be used in areas where durability is required because surfaces receive repeated impact.

Application and Equipment Recommendations

Before performing any repairs to asbestos containing material, contact your local authorities to ensure compliance with local regulations. Consult the full SerpiMastic specification for detailed recommendations.

Surface Preparation: Surfaces to be protected should be free of excessive loose dirt or oil. SerpiMastic will bond tightly to virtually any clean surface. Prepare surfaces in an asbestos-safe manner whether asbestos status is "hot" (positive), presumed (PACM), or unknown as any uncontrolled friable fiber and particulate release is poor work practice and potential hazard. Work damp or wet to control particulates.

Priming: SerpiMastic has tenacious adhesion to most construction materials. A primer for adhesion would not be necessary for clean, dry, unglassy and sound surfaces.

For cementitious surfaces exhibiting aging, chalking, spalling and similar gradual deterioration, use Fiberlock's GripTack™ multi-purpose adhesive to serve as primer and penetrating encapsulant. GripTack will enhance the dimensional stability of deteriorating surfaces to provide SerpiMastic with a surface receptive to adhesion.

** Ideal as a lockdown, SerpiMastic alone is insufficient as a walking surface without additional protection, and should never be used on surfaces with vehicular traffic.

Application

SerpiMastic Sprayable can be applied with brush, roller, or airless spray.

SerpiMastic Trowelable can also be brushed, but is more commonly applied with mason's trowel, soft spatula or painter's mitt.

Airless spray instructions can be found in a separate section of this tech sheet Applicators, in preparation for a new floor, may use a notched finishing trowel to spread and comb SerpiMastic Trowelable when locking down residual adhesive where previous tile or carpet/carpet & pad have been removed.

Brush application is not the same as painting. Use a stiff brush with short, synthetic (eg., nylon) bristles that can be work the SerpiMastic into the crevices and coarse profile of uneven surfaces.

Roller Application: Use a ¾" nap.

London Underground Applications

SerpiMastic is suitable for use in non-rolling stock applications such as Underground stations and tunnels. Total application dry film thickness must not exceed 39 mils (1mm). At this dry film thickness, one litre will cover .62m² (6.66 ft²). Contact Fiberlock if you have questions related to London Underground specifications.

Drying Time and Coating Thickness

SerpiMastic is a water-based coating material. Coating application thickness, temperature and humidity will affect drying rate. Drying time can be minimized by applying several thinner coats, with 24 hours drying time between each coat. Sprayable coating can be applied in single applications up to 188 mils (4.8 mm). Thicker coats can be built up by allowing 24 hours drying time between application (see also Spray Application section).

Trowelable coating can be applied in a single application up to 500 mils (12.7 mm) thick without cracking or shrinking.

Use of Lagging Cloth

SerpiMastic is a strong, resilient coating. In most cases, the use of lagging cloth is not necessary. Repairs of large damaged areas, weak insulation or areas requiring greater mechanical strength may require the use of this cloth. Please refer to the data sheet of Fiberlock's Lag Kloth.

Restoring Damaged Insulation

SerpiMastic is not an insulating material. Insulation that has been removed or deeply damaged should be replaced with a suitable insulating material and then covered with SerpiMastic.

Availability

SerpiMastic is available globally through authorized Fiberlock distributors.

Technical Data (For Sprayable & Trowelable)

Color	Gray
Solids by Weight ± 2%	71.0%
Solids by Volume ± 2%	62.0%
Density	11lbs/Gallon
Finish	Flat, Sandy
Flash Point	Non-combustible
Shelf Life	36 Months Minimum
Calculated VOC	23 grams/liter
Odor	Very slight
pH	7.5
Water Vapor Trans. (Permeability)	9.78 Perms [ASTM D 1653]
Temperature storage/application	40F-90F
Impact Resistance	160+ psi [ASTM D 2794]
Thinning	Not recommended
Dry to touch / Full cure	2 hrs / 8 hrs
Wet film	14-15 mils
Dry film****	9+ mils
Yield	100 sq ft per gal (min)
Flame Spread	<10 [ASTM E 84] Class A
Smoke Development	<30 [ASTM E 84] Class A
Limiting Oxygen Index	>40 [ASTM E 84]
K Factor - Apparent thermal conductivity	@141°F 4.1 BTU in./hr ft #2°F @ 90°C 0.6 W/M.K

EPA statements on encapsulant coverage and thickness:

A qualified asbestos professional should determine the necessary dry film thickness for individual abatement projects. The necessary dry film thickness of a bridging encapsulant for asbestos containing materials (ACM) will vary from project to project as ACM can have a wide range of characteristics, including density, porosity, and surface profile. In the EPA's Guidance for Controlling Asbestos-Containing Materials in Buildings (EPA 560 / 5-84024, June 1985), the primary instruction regarding dry film thickness states that when encapsulating ACM, the coating is to be applied "considerably thicker than recommended for painting. Coverage should be no more than 100 sq. ft. per gallon and should create a continuous, unbroken coating" (Section 5.1.3, page 5-8).

In severe environments, specifiers are advised to choose higher dry film thicknesses, such as 18-30 mils DFT.

Spray Application

(Applies to SerpiMastic Sprayable version only) Care should be exercised in selecting the proper equipment. All wetted parts of the spray pump should be specified to resist abrasion. The use of high density polyethylene seals in place of the standard PTFE seals will greatly extend the service life of the pump and reduce downtime. The following represents a typical unit suitable for use with this product:

Equipment: Titan 1140 Impact

Tip size: .527

Gun: LX 80

Hose Diameter and Length: 50' (15.2m) 3/8 hose, 1/4 whip

Pressure: 2800-3000 PSI

- For hoses longer than 50', and/or elevation from sprayer to applicator of up to 100', consider larger and gas-powered equipment such as Titan SpeeFlo
- Remove inlet filter strainer
- Do not use a siphon hose assembly, immerse pump directly into material (in high temperature "float" water on top to prevent skinning over)
- Remove outlet filter and filter support
- A .029 in. (0.74 mm) or .031 in. (0.79 mm) can also be used for more production
- Choose fan width according to size of application [i.e. 6 in. (152 mm) pipe use a 327 tip, 12 in. (305 mm) pipe use a 627 tip]

- Spray 12-14 inches from surface, use cross hatch pattern
- When applying to corrugated materials, backrolling after spray can even out wet film thickness (WFT) differentials. Corrugated surfaces will require more material and should be factored in when estimating
- Building very thick wet films, such as 50-70+ mils WFT can result in "orange peeling" or "mudcracking" because the airside surface is drying faster than the wet coating within. In very hot exterior applications this can also transpire at ordinary WFT. Such surface phenomena can be minimized by applying multiple thin coats. This cracking does not compromise encapsulation protection because the cracks do not extend beyond the coating surface
- Consult SDS (Safety Data Sheet) for current respiratory and other PPE recommendations before spraying

Warranty*

All statements, technical information and recommendations contained herein are based on tests we believe to be reliable. However, since the conditions of use and application are beyond our control, Fiberlock Technologies shall not be liable for any damage, direct or consequential, resulting from the use of this material or design. Fiberlock Technologies only warranty shall be to replace any of its products found to be defective.

Technical Support

Visit ICPMasterworksCommunity.com for a full Master Format AIA specification SECTION 02 82 13 ASBESTOS ABATEMENT – ENCAPSULATION as well as FAQs and installer training. SDS and labels are available as Fiberlock.com. We provide engineering analysis for unique asbestos abatement applications.

Testing/Certification

- Non-flammable when wet and Class "0" when dry.
- BS 476 Parts 6 (pass) & 7 (Class 1),
- BS 6853 Annex B.2: R-value .49 (#2418), R-value .30 (#2419); BS 6853 D8.4: Ao (On) 2.17 and Ao (Off) 2.98 (for #2418) and Ao (On) 1.92 and Ao (Off) 2.63 (#2419)
- ASTM E 119
- ASTM D 968
- ASTM D 3359
- ASTM D 1653
- ASTM D 2794
- ASTM E 84
- UL Classified

** Only at higher DFT, product replacement only, limited performance warranties may be available up to 10 years prorated, but only with advance consultation with qualified ICP personnel.*

Product Availability

SerpiMastic is available through authorized Fiberlock distributors in the following quantities:

Description	Part No.	Size
Heavy Duty Sprayable	2419-5 (US), 2419-10L (UK/EU)	5 Gallons (US), 10L Pails (UK/EU)
Heavy Duty Trowelable	2418-5 (US), 2418-10L (UK/EU)	5 Gallons (US), 10L Pails (UK/EU)

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