



# SUPERIOR PRODUCTS INTERNATIONAL II, INC.

## ASBESTOS ENCAPSULATION PROCEDURES

Installation Guide Specification (2/04)  
0412-SPI-Rust Grip Encapsulation over ASBESTOS

1

SUPERIOR PRODUCT INTERNATIONAL II, Inc. (SPI.II)  
APPLICATIONS OVER ASBESTOS FIBEROUS MATERIALS

### GENERAL

#### 1.01 SUMMARY

- A. Provide labor, materials, equipment and supervision necessary to install (spray-apply, brush or roller) EPA for Encapsulation Systems outlined in this specification to safely abate asbestos.
- B. SUPERIOR PRODUCT INTERNATIONAL II, Inc.'s application instructions for each product used are considered part of these specifications and should be followed at all times.

#### 1.02 SUBMITTALS

- A. Submit reports and literature verifying compliance with fire ratings, physical properties or approvals earned by specified materials.
- B. Submit material safety data sheets on all materials.

#### 1.03 QUALITY ASSURANCE

- A. Supplier Qualifications: SPI.II products, as supplied by SPI.II, Inc., shall be approved for use on the project. The product manufacturer shall have been in business for a minimum of eight (8) years.
- B. Applicator Qualifications: SPI.II, Inc. shall approve the application contractor. SPI.II's written verification of applicator approval shall be required.

#### 1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Containers and packaging: Deliver materials in original sealed containers, clearly marked with SPI.II's logo, brand name, type of material and production lot numbers.
- B. Storage: Store materials between 40°F and 100°F with careful handling to prevent damage to products. Do not store for long periods in direct sunlight, at excessive temperatures or at temperatures below freezing.
- C. Protection: Protect all materials from damage during transit, handling, storage and installation.
- D. Verify dates of manufacture and confirm that material is within shelf life.

#### 1.05 PROJECT CONDITIONS

- A. Environmental Requirements Conditions.
  - 1. These minimum recommendations for material coverage are for ideal conditions. The number of gallons to coat 100 square feet may need to be increased due to uneven application, rough surface texture, heat and wind conditions while spraying or applying and other variables.
  - 2. Do not apply materials unless surface to receive Encapsulation System is dry and surface compatibility testing has been successfully completed.
  - 3. Install all material in strict accordance with all published safety or applicable regulations of SPI.II, Inc. and/or local, state, and/or federal agencies that have jurisdiction.
  - 4. Do not proceed with application of coating or sealing materials when surface temperature is less than 50°F. No coating system shall be applied if weather will not permit it to dry before exposure to precipitation or freezing.
  - 5. Instructions for use of all SPI.II, INC. materials and application equipment should be read and followed at all times.

B. The SPI.II, Inc. encapsulation system is a moisture-curing urethane, spray, brush or roller-applied SPI.II, Inc. System manufactured by SPI.II, Inc.

- 1. Coatings shall be USDA-approved, single component formula with VOC levels accepted as "Metallic Pigmented Maintenance coating" with less than 500 g/litre, low molecular weight resins for penetration,

Mr  
Re:

, 2008  
Page 2

Installation Guide Specification (2/04)  
0412-SPI-Rust Grip Encapsulation over ASBESTOS.

zero porosity, abrasion resistant and primer/top coat in one, with the ability to encapsulate asbestos, swell and lock into the fibers as certified by the passage of ASTM E 1795, as well as rusted surfaces, to provide a protective coating of superior adhesion, flexibility and abrasion/impact-resistance as required by EPA for encapsulation of existing asbestos and harden over the surface to 6780 psi (475 bar) surface tensile strength while maintaining flexibility to prevent damage and release of the asbestos to the environment.

2. Coating materials shall be warranted to be heavy-bodied (50% solids by volume content), from the same manufacturer and shall be long-lasting, remain highly flexible, chalk resistant, resist cracking, peeling, algae and fungus that cause future indoor air quality concern.
3. Coatings shall have independent ASTM laboratory test data on adhesion, penetration, rub abrasion to 29,000 rubs without wearing out of the surface of the coating and surface tensile strength of a minimum of 6780 psi.
4. Coating materials shall have V.O.C. (Volatile Organic Compound) content below 450 grams per liter.
5. Coating materials shall be safe to use, shall not release health threatening toxic smoke in a fire and will comply with all building codes. The coating must be classified as Class A in Flame Spread and smoke.
6. Coating must be able to withstand up to 600F (300C) varying peak temperatures but not holding constant.
7. Coating must be able to withstand up to 300 volts of electricity without harm to the physical form of the coating to perform its encapsulation lock.

C. Coating Material shall have passed the following testing standards:

1. Must pass each ASTM test requirement listed under the E 1795, which is the National Standard for Encapsulation materials (approved Nationwide for interior and exterior use).

2000 Hours Weathering

Aging: Interior and Exterior

Tensile properties 6750 psi

2. Class "A" Surface Flammability and Burning Characteristics, by method ASTM E-84 (Flame Spread = 0, Smoke Developed = 5). This is equal to NFPA 255, UL No. 723, ANSI 2.5 and U.B.C. 42-1.
3. D- 3359 Penetrates 18 layers of existing porous coating materials and asbestos to a minimum of ¼".
4. D- 4060 1000 Cycles Tabor Abrasion 18 gram lost
5. Impact Resistance by ASTM D-2794 = exceeds 160 in. lb. (80 in. lb. min. to pass).
6. D 1308 Chemical Resistance 24 hours-12 Reagents - passed
7. D-3359 and D 4541 Adhesion - passed
8. D 1653 Water Vapor Transmission – 0.10
9. G85 1500 Hours Salt Fog/Prohesion - passed
10. GB/T 1771-91 Resistance to Salt Fog (2000 hours)-passed  
GB/T 1866-88 Manual Aging (2000 hours) – passed  
GB/T 10834-88 Resistance to Salt Water (1000 hours) passed  
GB/T 5219-85 Adhesion (pulling apart method) 4.07 MPa  
GB/T 1733-93 Boiling Water Immersion – 8 hours – passed  
(China Shipbuilding National Laboratory Required Testing)
11. Mildew Resistance by ASTM D3273 (no observed mildew).
12. D522 Flexibility, Mandrel Bend
13. Distilled Water Resistance – 24 hours immersion – passed
14. D2369, D 4017, D3960 and D 1475 VOC
15. Aging (interior and exterior)
16. D 2486 Scrub Resistance
17. D 3273, D 3274 Mildew Resistance
18. D 3359 Paint/Repair Ability
19. D 2370 Visco-Elastic Properties
20. Encapsulation of Lead Based Paint Testing: (non-wear, friction burn, or Lead Based Paint Exposed after 29,000 rubs when the coating faces itself on a rub.)

Mr  
Re:

, 2008  
Page 3

Installation Guide Specification (2/04)  
0412-SPI-Rust Grip Encapsulation over ASBESTOS.

## **2.02 RELATED MATERIALS**

A. SPI.II, Inc. shall approve elastomeric caulking compounds, primers, and similar materials. All materials used shall be applied in accordance with SPI.II, Inc.'s recommendations.

## **2.03 EQUIPMENT RECOMMENDATIONS**

SPI.II, Inc. materials are prescreened at the factory and can be applied with nylon bristle brushes, short nap or disposable rollers, or airless spray equipment. Airless piston-type spray equipment suitable for application should use a .017 tip.

A. Graco Airless equipment or equivalent using a Graco Model 5900 or 7900 information line is (800) 328-0211.

B. Equipment Accessories:

Hose: 3/8 inch (9.53 mm) inside diameter (minimum), 1/2 inch (min.) on long runs.

Guns: Graco Silver or Golden Hydra-mastic guns.

Note: For alternative equipment recommendations consult the spray equipment manufacturer directly.

## **3.01 MANUFACTURER'S INSTRUCTIONS**

A. Compliance: Comply with SPI.II's product data, including product technical bulletins and product guide specification instructions.

## **3.02 PREPARATION**

A. Protect floors, windows, mechanical items or any areas not to be coated to protect from over-spray or dripping.

B. All surfaces to be encapsulated should be free of visible moisture.

C. SPI.II, Inc. products being applied over potential surface contaminants, such as glossy, greasy, dirty, or otherwise questionable surfaces" should be patch-tested for surface compatibility. All residues and dirt must be brushed off or washed to clean and dry before application.

D. If product spray should occur on any surface not to be coated, wipe immediately to avoid staining or permanently adhering.

## **3.03 APPLICATION**

A. The application must be applied by spray, roll or brush keeping the product very wet over the surface to allow complete and not limit the absorption of the RUST GRIP product into the porous fiber surface. This first coat will require the coating to be applied at 9 sq.m per gallon (100 sq.ft.) in order to wet out and fill the pores and absorb into the fiber surface. Forcing the coating as deeply as possible into the surface must be done to assure complete encapsulation deep into the surface of the asbestos and as far into and through the material to form the bond to the substrate. The bonding is desired to have the asbestos adhered to the substrate if possible or to seal over the surface when locking down and curing. The application first seals and stabilizes the surfaces, then produces a durable, long-lasting protective jacket over the asbestos. The application of a "Patch-Test" is recommended.

B. Allow one hour for the first heavy coat to dry and then come back to apply another heavy coat over the surface at approximately 15 sq. m per gallon (150 sq.ft.) to assure that all voids and pin holes and are filled and sealed.

C. A dry film thickness of 4 mil (100 micron) should be remaining over the surface of the coated asbestos.

D. Apply Enamo Grip color if color is desired over the dried rust grip. Apply at a coverage rate of 200 square feet per gallon per coat (8 - 9 wet mils) to produce 4 dry mils per coat as a finish top coat.

E. A top coat is not necessary for RUST GRIP to perform the encapsulation. ENAMO GRIP is used as a top coat only if a finish color is desired to complete a particular color scheme.

F. Industrial Acrylic Caulk (trowelable grade) can be used to bridge and seal cracks up to a 1/4" thick and repair all areas where compatibility testing has been successfully completed.

G. RUST GRIP is a high solids (50% by volume) content material. Allow to dry thoroughly before applying second coat.

H. Coverage rate per gallon varies depending upon porosity, texture, condition of the surface and the mil thickness. Rough, highly textured surfaces require more material than flat or smooth surfaces. The



Mr  
Re:

, 2008  
Page 4

Installation Guide Specification (2/04)  
0412-SPI-Rust Grip Encapsulation over ASBESTOS.

calculated coverage rate RUST GRIP on a flat, smooth surface is: 200 sq. ft per gallon (applied @ 8 wet mils = 4 dry film thickness per coat.)

RUST GRIP can be used over various interior or exterior surfaces including: walls, ceilings, trim, flat Transite, rough, porous, textured or irregular surfaces, cementitious surfaces, stucco, wood siding, shingle siding, window frames, windowsills & porch walls, wood overhangs, porch ceilings, wood trim & posts.

I. Under normal drying conditions, SPI.II, Inc. products develop their full strength and chemical resistance properties 10 to 21 days following application. Follow all applicable state and/or federal OSHA Guidelines.

### 3.04 FIELD QUALITY REQUIREMENTS

A. Manufacturer's Field Services: Inspection by a SPI.II, Inc. Authorized Sales Representative shall be made to verify the proper installation of the system. Any areas that do not meet the minimum standards for application as specified herein shall be corrected at the contractor's expense. On a case-by-case basis, payment of expenses incurred by the SPI.II, Inc. Representative may be the responsibility of the building owner and/or contractor. SPI.II's inspection or verification shall not constitute acceptance of responsibility for any improper application of material.

B. Disclaimer: SPI.II's employees and/or Authorized Sales Representatives are not responsible for any liabilities resulting from the application or use of these materials.

### 3.05 CLEANING

A. Use MEK, Xylene or Acetone to clean up equipment, clean up should be handled swiftly so that the coating will not set up in the equipment, brushed and rollers must be discarded after use.. Surfaces not intended to receive SPI.II system shall be protected during the application process.

## IV. MATERIALS

The following materials listed in these recommendations are available from:

SUPERIOR PRODUCTS INTERNATIONAL II, INC.

10835 W. 78th St., Shawnee, KS. 66214

- 1) Industrial Cleaner (concentrate)
- 2) RUST GRIP
- 3) ENAMO GRIP (TOP COAT)
- 4) Acetone/Xylene Chlor-rid or MEK
- 5) SUPERBASE HS (SUPER Caulk)

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use are beyond our control. The prospective user should determine the suitability of our materials and installation recommendations before adopting them for commercial use.

Copyright 2004 SPI.II, Inc.

Very truly yours,

SUPERIOR PRODUCTS INTERNATIONAL II, INC.

By:

A handwritten signature in black ink, appearing to read "J. Pritchett", written over a horizontal line.

Joseph E. Pritchett  
President