

SECTION 081401

THERMAL BARRIER COATINGS EXISTING SOLID CORE DOORS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Gypsum Board Wall Assemblies
- B. Wood Framed Wall Assemblies
- C. Masonry Wall Assemblies

1.2 RELATED SECTIONS

- A. Section 07200 - Thermal Protection: Thermal insulation systems.
- B. Section 07815 - Sprayed-On Fireproofing: Requirements for and application of sprayed-on fireproofing.
- C. Section 07840 - Firestopping: Requirements for and installation of firestopping protection.
- D. Section 09260 - Gypsum Board Wall Assemblies: Requirements for hourly Rating
- E. Section 09960 – High Performance Coatings
- F. Section 09966 - Fire Retardant Coatings.
- G. Section 09967 - Intumescent Painting.

1.3 REFERENCES

- A. ASTM E 84 (30 minute) - Standard Test Method for Surface Burning Characteristics of Building Materials.
- B. ASTM E 119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
- C. ASTM E 2768 – Standard Test Method Extended Duration Surface Building Characteristics of Building Materials
- D. UL 10B – Fire test of Door Assemblies
- E. UL 263 – Fire Resistant Rated Assemblies
- F. NFPA 701 Standard for Smoke Door Assemblies and Other Opening Protectives
- G. NFPA 252 Standard Methods of Fire Tests of Door Assemblies
- H. ASTM E152 Standard Methods of Fire Tests of Fire Doors
- I. NFPA 251 – Standard Methods of Tests of Fire Endurance of Building Construction and

Materials

J. NFPA 286 - Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth.

K. NFPA 703 – Standard for Fire Retardant Treated Wood and Fire Retardant Coatings for Building Materials

L. UL 723 - Test for Surface Burning Characteristics of Building Materials

M. CAN/ULC – S – 101 Standard Methods of Tests of Fire Endurance of Building Construction and Materials

1.4 DESIGN / PERFORMANCE REQUIREMENTS

A. Fire-Resistance Ratings: As Tested and Listed by Guardian Fire Testing Laboratories Assembly designation.

1.5 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Installation methods.

C. Certification: Obtain and submit certification by authority having jurisdiction that fireproofing products are acceptable.

D. Installer's qualification statement indicating installer is approved by the manufacturer as an installer.

E. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in the manufacture of the products specified, with minimum of 5 years documented experience.

B. Installer Qualifications: Applicator shall be a firm experienced in the installation of fire retardant treatments similar in type and scope to that required for this project and is trained and certified by the manufacturer for installation of the product specified.

C. All applications will be monitored and tracked by IFS UV Monitoring and Tracking Program.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Store products indoors between 33° F – 100° F, (1° C – 38° C) in manufacturer's unopened packaging until ready for installation.

B. Protect products against freezing.

1.8 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under

environmental conditions outside manufacturer's absolute limits.

B. Do not install when substrate temperature is less than 50° F (10° C) or above 125° F (52° C) and when relative humidity is above 85 percent.

C. Maintain ventilation after application of fireproofing in accordance with manufacturer's recommendations.

D. Coordinate sequence of work with other installers of work that needs to penetrate fireproofing, to avoid unnecessary damage and patching.

E. Coordinate sequence of work with other installers of work that would obstruct access to surfaces to be fireproofed.

PART 2 PRODUCTS

2.1

MANUFACTURERS

A. Acceptable Manufacturer: Firefree Coatings, Inc.; 580 Irwin Street No 1, San Rafael, CA 94901; Tel: 415-459-6488

B. Substitutions: Not permitted.

C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 INSTALLERS

International Fire-Shield, Inc.; PO Box 7305, Auburn, NY 13021; Tel: 800-513-5134; email: nyfsinc@nyfs.com web: www.nyfs.com

2.3 MATERIALS

D. 1500 Series□ FireFree88□ as manufactured for International Fire-Shield, Inc; PO Box 7305, Auburn, NY 13022; Tel: 800-513-5134; email: nyfsinc@nyfs.com web: www.nyfs.com

1. Thin Film intumescent coating that creates a fire retardant and hourly fire resistant thermal barrier on existing non-rated solid core wood interior doors.

2. Decorative Finish – Gives a smooth/flat decorative finish

3. Can be top coated to color choice or custom tinted by manufacturer (Contact manufacturer for compatible top coat).

4. Provides a hard, impact and abrasion resistant finish

5. Low VOC content

PART 3 EXECUTION

3.1

EXAMINATION

A. Do not begin installation until substrates have been properly prepared or environmental conditions are outside the Manufacturers absolute limits.

B. Examine for wet conditions; D not apply product to substrates that are wet or have been wet, unless they can be dried to the maximum moisture content as specified by the manufacturer.

C. Verify that substrates are ready to receive 1500 Series□ Firefree88□ thermal barrier coating.

D. Ensure that all primers are compatible with the coating.

E. Verify any need for installation of intumescent gaskets on head and jamb of door. Seals may be installed by pressure sensitive adhesive or mortised into door or frame as per manufacturer's instructions.

F. Verify any need for replacement or installation of additional mounting/ latching hardware or intumescent seals necessary to meet hourly rating required.

G. Verify that other work that would obstruct access to surfaces to be fireproofed has not been installed.

H. Where the thermal barrier coating is to be exposed to view as a finished surface, verify that surfaces are smooth, without voids, cracks, or projections.

I. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Clean surfaces thoroughly in accordance with manufacturer's instructions prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

C. Clean surfaces of dirt, dust, grease, oil, loose material, and other matter that may affect bond of the coating.

D. Protect floors and adjacent walls and ceilings from overspray, fall-out, and dusting.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Thoroughly mix product with a 1/2" electric or air driven drill with a slotted paddle or jiffy blade. Mix product for a minimum of 5 minutes to achieve the necessary texture required before application.

C. Install the thermal barrier coating by brush, roller or airless sprayer application. Multiple coats will be required to meet specifications to the job requirements. Allow each coat to completely dry to the touch before applying next coat.

D. Field tinting and thinning of product is not allowed.

E. Perform frequent measurements with a wet film gauge during each application to ensure uniform thickness and wet mil thickness as specified by the manufacturer.

F. Remove coating from surfaces not specifically required to be fireproofed.

3.4 FIELD QUALITY CONTROL

A. When required field inspection and testing will be performed by Owner's independent testing agency.

B. Correct defective work as a direct result from certified applicators installation and provide further inspection and testing to verify compliance, at no cost to Owner.

C. All applications will be monitored and tracked by IFS UV Monitoring and Tracking Program.

3.5 PROTECTION

A. Protect installed products until completion of project.

B. Remove excess material, overspray, droppings, and debris.

C. Touch-up, repair or replace damaged products before Substantial Completion. If thermal barrier coating becomes damaged rebuild required thickness by brush, roller or spray application. Damaged area must be abraded back to a firm edge by sanding or scraping. Topcoats should be abraded back 1" from the damaged area.

3.6 CONFORMANCE CERTIFICATION

A. Written Certification shall be provided for the substrates or assemblies treated for meeting the required code of the Authorities Having Jurisdiction

END OF SECTION