

SECTION 072119

FOAMED-IN-PLACE INSULATION IGNITION BARRIER COATING

PART 1 - GENERAL

1.1 SUMMARY

- A. Provide labor, materials, products, equipment and services to complete the ignition barrier coating work specified herein. This includes, but is not necessarily limited, to:
 - 1. Surface preparation and application of ignition barrier coating encapsulating in-place spray-applied polyurethane foams.
 - a. Refer to schedule at end of Section for building location, insulation type, and approximate square footage.
 - 2. Work must be completed during 2022-23 Winter Break,
 - a. Winter Break begins Saturday December 10th and runs through Sat January 21, 2023

1.2 ADMINISTRATIVE REQUIREMENTS

- A. Pre-installation Meetings: Schedule and conduct pre-installation meeting with Owner's Representative, to coordinate work of this Section.
 - 1. Record significant discussions, agreements, and disagreements, including required corrective measures and actions.

1.3 SUBMITTALS

- A. Product Data: For each type of product.
- B. Qualification Data: For Installer.
- C. Product Test Reports: For each product with cross reference to each type of in place spray-applied foam insulation, for tests performed by a qualified testing agency.
 - 1. Provide verification ignition barrier coating is compatible and approved for use as ignition barrier for each respective in-place spray foam insulation.
- D. Evaluation Reports: For ignition barrier coating spray-applied polyurethane foam-plastic insulation, from ICC-ES, showing compliance with applicable building codes.
- E. Certificates: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.
 - 1. Manufacturer's Instructions: submit manufacturer's installation instructions and special handling criteria, installation sequence, and cleaning procedures.

- F. Applicator’s Field Reports: Submit applicator’s job work written reports that includes information about ambient conditions, application thicknesses and results of on-site testing to verify compliance of Work, as described in this Section.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: An authorized representative who is trained and approved by manufacturer, with 5 years documented experience.
- B. Mock-ups:
 - 1. Construct mock-ups to verify selections made under sample submittals, and to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 2. Apply mock-up of ignition barrier coating work, illustrating assembly including substrate preparation and quality of workmanship in presence of Architect and Owner.
 - 3. Mock-ups shall be used as a benchmark for judging the texture and thickness of the finished work.
 - 4. Mock-ups may form part of the completed Work if undisturbed at the time of substantial completion.

1.5 PROJECT CONDITIONS

- A. Owner's Occupancy
 - 1. Owner will occupy premises during entire period of construction for the conduct of his normal operations. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
 - 2. Do not reduce or diminish fire alarm, fire exiting, fire-fighting access, or fire protection for building occupants, at any stage of construction, to less than that existing at the start of construction.
 - 3. Perform the Work with a minimum of disruption by noise, odors, dust or other disruptive causes to Owner's normal operations.
 - 4. Do not interrupt existing plumbing, fire protection, HVAC or electrical systems in existing adjacent buildings at any time unless authorized by Owner.
 - 5. The Contractor must control the whereabouts on Owner's premises of all personnel involved in the Work for security and safety purposes. Cooperate with Owner's personnel and Owner's security personnel.
- B. Temporary Facilities and Controls
 - 1. Coordinate with Facility Management for requirements including but not limited to elevator use, rubbish removal, protection of base building construction and work that effects occupied areas of the building and occupants themselves.
 - 2. Provide walk off mats at entrances and exits to area of work.
 - 3. Provide secure, dust-tight barricades where required to separate work area from occupied areas and to prevent entry by unauthorized parties.
 - 4. Ensure that building remains secure and watertight at all times.
 - 5. Protect existing work to remain both within area of work and in areas accessed for service to new work.
 - a. Repair work damaged or effected by work of this contract.

- b. Leave no evidence of remodeling or repair.
 - c. Clean area of work and areas accessed for service.
6. Use only toilet facilities designated by Facility Management. Maintain in condition furnished.
 7. Ventilation: Provide ventilation of enclosed areas to cure materials, to disperse humidity, and to prevent accumulations of dust, fumes, vapors, or gases.

PART 2 - PRODUCTS

2.1 DESIGN AND PERFORMANCE REQUIREMENTS

A. Material Compatibility:

1. Provide materials for use within each coating system that are compatible with one another and substrates indicated.
2. Apply all products according to spreading rates recommended in writing by ignition barrier coating manufacturer.

2.2 IGNITION BARRIER

- A. Manufacturers and products listed in this Section 072119 are specified standards, intended to further define the design and performance intent of Contract Documents.
 1. Equivalent products by other manufacturers subject to compliance with requirements specified herein and approved by Architect shall be acceptable.
- B. Ignition Barrier Coating encapsulating (SPF) Polyurethane Foam: Basis of Design; International Fireproof Technology Inc., DC315
 1. Single component, water-based intumescent coating tested to meet Building Code requirements for the protection of spray polyurethane foam (SPF)
 - a. Tested and evaluated by UL and ICC-ES
 2. Provide approved ignition barrier coating compatible with spray applied foam insulation.
 - a. Meets requirements for ignition barrier protection in unoccupied spaces per AC377, Appendix X
 - b. AC436 Compliant
 - c. ASTM E2768; 30 minute Ignition Resistant Material.
 - d. ASTM E84 Class 'A'
 - e. NFPA 286: Complies with Acceptance Criteria of IBC
 - f. Contains no added formaldehyde.
- C. Bonding Primer: Waterborne, acrylic emulsion, adhesion promoting bonding primer recommended in writing by manufacturer, if required, compatible with substrate and other materials indicated.

PART 3 - EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS

- A. Comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheets.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions applicable to substrates and coating systems indicated. Refer to test report for applicable brand and type of sprayed polyurethane foam to verify compatibility, and if a primer is required. Provide compatible primer approved by ignition barrier coating manufacturer to required surfaces where required by applicable test reports..
 - 1. Insulation shall be cured and free of loose particles or other foreign matter that may inhibit proper adhesion and performance of coating.
- B. Protection:
 - 1. Cover other work subject to damage from fallout or overspray of ignition barrier during application.
 - a. Provide masking, drop cloths or other satisfactory coverings for all materials/surfaces which are not to receive ignition barrier to prevent damage from over-spray.
 - b. Mask adjacent surfaces to a true line, at a distance from the insulated surface equal to the required insulation thickness.
 - 2. Close off and seal ductwork in areas where insulation is being applied.
 - 3. Protect applied sprayed-on insulation from damage.
 - 4. Provide temporary enclosure as may be required to confine operations, protect the environment, and ensure required ambient conditions.
 - 5. Provide natural or mechanical ventilation continuously to properly cure the insulation.

3.3 INSTALLATION

- A. Apply ignition barrier coatings according to manufacturer's written instructions and to comply with requirements for fire-protective coating classification and applicable test reports for spray urethane foam insulation.
 - 1. Apply ignition barrier to fully encapsulate in-place spray foam insulation.
 - 2. Apply coatings to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections.

3.4 CLEANING AND PROTECTION

- A. Upon completion of installation, clean excess material, overspray, and debris. Remove and clear such materials from Project site.
- B. Ensure patching of, and repair to, ignition barrier coating due to damage by other trades, is performed under this section, and paid for by trade responsible for damage.

- C. Ensure patching is performed by an applicator with expertise in the installation of ignition barrier coatings.

3.5 FIELD QUALITY CONTROL

- A. Continuously monitor wet film thickness by performing checks to ensure correct thicknesses are applied.
- B. Review results of installed thickness tests with Owner’s Representative and ensure sign-off.

3.6 IDENTIFICATION

- A. Upon completion, provide job site label or similar method of identifying product used.
 - 1. Affix job site label in a prominent location, clearly indicating applicator’s name, contact information, company information, products used, and measured thickness.

3.7 SCHEDULE

Schedule of Campus Buildings to receive Ignition Barrier Coatings.

Building	Ignition Barrier Present?	Insulation Mfgr/Product	Attic GSF
Anderson	No	Icynene/Classic Max	13,437
Bishop	No		2,780
Brandon	No	Icynene/Classic Max	9,596
Clawson	No	Icynene/ProSeal	9,748
Collins	No	Icynene/Classic Max	10,610
Dennison	No	Gaco/Firestop2	10,906
Dorsey	No	Icynene/Classic Max	14,313
Etheridge	No		25,006
Flower	No	Gaco/OnePass F1850	15,193
Hahne	No	Gaco/OnePass F1850	20,715
Hepburn	No	Icynene/Classic Max	15,547
Maplestreet	No		24,681
McBride	No	Icynene/Classic Max	10,613
McFarland	No	Icynene/Classic Max	9,593
Shriver Ctr.	No	Icynene/Classic Max	29,799

END OF SECTION 072119