# SECTION 072119 - FOAMED-IN-PLACE INSULATION

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

### 1.2 SUMMARY

A. Section Includes:

1. Closed-cell spray polyurethane foam.

B. Related Requirements:

1. Section 033000 - "Cast-in-Place Concrete" for wall substrate.
2. Section 042200 - "Concrete Unit Masonry" for wall substrate.
3. Section 054400 - "Cold-Formed Metal Framing" for structural metal framing.
4. Section 061600 - "Sheathing" for exterior wall substrate at structural metal framing.
5. Section 072100 - "Thermal Insulation" for foam-plastic board and batt insulation.

### 1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

### 1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

B. Product Test Reports: For each product, for tests performed by a qualified testing agency.

C. Evaluation Reports: For spray-applied polyurethane foam-plastic insulation, from ICC-ES Evaluation Report and manufacturer's documentation confirming material conforms to ASTM C1029.

### 1.5 QUALITY ASSURANCE

A. Installer Qualifications: An authorized representative who is trained and approved by manufacturer.

PART 2 - PRODUCTS

2.1 CLOSED-CELL SPRAY POLYURETHANE FOAM

A. Closed-Cell Spray Polyurethane Foam: ASTM C 1029, Type II, minimum density of 2.0 lb./cu. ft. and minimum aged R-value at 1-inch thickness of 6.0 deg F x h x sq. ft./Btu at 75 deg F.

1. Basis-of-Design Product: Subject to compliance with requirements, provide "Handi Foam" manufactured by ICP Adhesives and Sealants, Inc. or a comparable product by one of the following:

a. BASF Corporation.
b. Dow Chemical.
c. CertainTeed Corporation.
d. Johns Manville; a Berkshire Hathaway Company.
e. Icynene Inc.

2. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

a. Flame-Spread Index: 25 or less.
b. Smoke-Developed Index: 450 or less.

3. Fire Propagation Characteristics: Passes NFPA 285 testing as part of an approved assembly.

4. Location: Exterior wall system to fill cavities, cracks, eave lines and penetrations, preventing uncontrolled air leakage.

2.2 MISCELLANEOUS MATERIALS

A. Primer: Material recommended by insulation manufacturer where required for adhesion of insulation to substrates.

2.3 BARRIER COAT FIREPROOFING

A Barrier Coat Fireproofing: Subject to compliance with requirements, provide "Fireshell F10E – NFPA 286" manufactured by TPR2 or a comparable product.

1. Location: Apply to exposed sprayfoam insulation on the interior of the building.

2. Properties:

a. Non-flammable, 1-part, water based, intumescing coating.
b. Expands up to 2000 percent.

c. Non-toxic, drain safe, water based, non-fuming.
d. For Interior application.
e. Can be latex or oil base top coated.

PART 3 - EXECUTION

3.1 PREPARATION

A. Verify that substrates are clean, dry, and free of substances that are harmful to insulation.

B. Priming: Prime substrates where recommended by insulation manufacturer. Apply primer to comply with insulation manufacturer's written instructions. Confine primers to areas to be insulated; do not allow spillage or migration onto adjoining surfaces.

3.2 INSTALLATION

A. Comply with insulation manufacturer's written instructions applicable to products and applications per ASTM C 1029.

B. Spray insulation to envelop entire area to be insulated and fill voids.

C. Apply in multiple passes to not exceed maximum thicknesses recommended by manufacturer. Do not spray into rising foam.

D. Framed Construction: Install into cavities formed by framing members to achieve thickness indicated on Drawings.

E. Cavity Walls: Install into cavities to fully fill void.

F. Miscellaneous Voids: Apply according to manufacturer's written instructions.

G. Maintain 3-inch clearance around heating vents, steam pipes, recessed lighting fixtures and other heat sources.

3.3 PROTECTION

A. Protect installed insulation from damage due to harmful weather exposures, physical abuse, and other causes.

END OF SECTION 072119

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