

SECTION 07270
FIRESTOPPING

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. The provisions of the general Conditions, Supplementary Conditions, and the Sections included under Division 1, General Requirements, are included as a part of this Section 1.

1.2 SECTION INCLUDES:

- A. Fireproof firestopping and fire safe materials and accessories.

1.3 REFERENCES

- A. ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials
- B. ASTM E119 – Standard Test Method for Fire Tests of Building Construction and Materials.
- C. ASTM E814 – Standard Test Method of Fire Tests of Through Penetration Firestops
- D. FM (Factory Mutual) - Fire Hazard Classifications.
- E. UL - Fire Hazard Classifications
- F. UL 263 - Fire Tests of Building Construction and Materials
- G. UL 723 - Test for Surface Burning Characteristics of Building Materials.
- H. UL 1479 - Fire Tests of Through-Penetration Firestops
- I. WH (Warnock Hersey) - Certification Listings.
- J. Florida Building Code.

1.4 DEFINITION

- A. Firestopping: A code approved material or assembly placed in spaces between building materials to arrest the spread of smoke, heat, gases, or fire through wall or floor openings.

1.5 SYSTEM DESCRIPTION

- A. Firestopping Materials: ASTM E119, ASTM E814, UL 263 or UL 1479 to achieve fire rating.
- B. Surface Burning: ASTM E84 or UL 723 with a flame spread/smoke developed rating per code.
- C. Firestop all interruptions to fire rated assemblies, materials and components.

1.6 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Provide data on product characteristics, performance and limitation criteria.
- C. Manufacturer's Installation Instructions: Indicate preparation and installation instructions.
- D. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.7 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing the products specified in this section with minimum five years documented experience.
- B. Applicator: Company specializing in performing the work of this section with minimum three years documented experience and approved by manufacturer.

1.8 REGULATORY REQUIREMENTS

- A. Conform to applicable code for fire resistance ratings and surface burning characteristics.
- B. Provide certificate of compliance from UL or WH indicating approval of materials used.

1.9 MOCKUP

- A. Provide mockups of applied firestopping assemblies under provisions of Section 01400.
- B. Apply 3 sq. ft. to a representative substrate surface.
- C. Apply firestop material to a representative penetrated masonry, concrete, stud wall and substrate.
- D. If accepted, mockup will demonstrate minimum standard of the Work.
- E. Mockup may remain as part of the Work.

1.10 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply materials when temperature of substrate material and ambient air is below 60°F.
- B. Maintain this minimum temperature before, during and three days after installation of materials.
- C. Provide ventilation in areas to receive solvent cured materials.

PART 2 PRODUCTS

2.1 SILICONE ELASTOMERIC COMPOUND

- A. Single or multiple component silicone elastomeric compound and compatible silicone sealant.

2.2 FOAM COMPOUND

- A. Single or multiple component foam compound.

2.3 FORMULATED COMPOUND OF INCOMBUSTIBLE FIBERS

- A. Formulated compound mixed with incombustible non-asbestos fibers.

2.4 FIBER STUFFING

- A. Mineral fiber stuffing insulation.

2.5 MECHANICAL DEVICE WITH FILLERS

- A. Mechanical device with incombustible fillers covered with sheet stainless steel jacket, joined with collars and penetration sealed with flanged stops.

2.6 INTUMESCENT PUTTY

- A. Intumescent putty compound which expands on exposure to surface heat gain.

2.7 CERAMIC-BASED FIRESTOP SEALANT

- A. High temperature smoke and firestop sealant for sealing penetrations in walls and floors.

2.8 FIRE PREVENTION PILLOW SYSTEM

- A. Intumescent fiberglass bags for sealing cable tray openings.

2.9 ACCESSORIES

- A. Primer: Type recommended by firestopping manufacturer for specific substrate surfaces.
- B. Installation Accessories: Clips, collars, fasteners, temporary stops or dams, and other devices required to position and retain materials in place.

PART 3 PREPARATION

3.1 EXAMINATION

- A. Verify site conditions.
- B. Verify openings are ready to receive the work of this section.

3.2 PREPARATION

- A. Clean substrate surfaces of dirt, dust, grease, oil, loose material or other matter that may affect bond of firestopping material.
- B. Remove incompatible materials that may affect bond.
- C. Install materials to arrest liquid material leakage.

3.3 APPLICATION

- A. Unless otherwise noted, each trade is responsible for installation of firestopping at each location where your work penetrates a firewall or falls in a location where firestopping is required.
- B. Install material at walls or partition openings that contain penetrating sleeves, piping, ductwork, conduit and other items requiring firestopping.
- C. Apply primer and materials in accordance with manufacturer's instructions.
- D. Apply firestopping material in sufficient thickness to achieve rating.
- E. Place foamed material in layers to ensure homogenous density, filling cavities and spaces. Place sealant to completely seal junctions with adjacent dissimilar materials.
- F. Place intumescent coating in sufficient coats to achieve rating required.

3.4 CLEANING

- A. Keep work area clean. Clean area upon completion of the work.
- B. Clean adjacent surfaces of firestopping materials.

3.5 PROTECTION OF FINISHED WORK

- A. Protect finished work.
- B. Protect adjacent surfaces from damage by material installation.

END OF SECTION