

SECTION 07 84 00

FIRESTOPPING

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Mineral fiber safing insulation.
- B. Silicone foam seal system.
- C. Gypsum fireproofing sealant.
- D. Fire stop sealant.

1.02 SYSTEM DESCRIPTION

- A. System includes specifications for firestopping and fire-resistant penetration seals for floors, walls, ceilings, and roof where fire-rated walls, shafts, or assemblies are penetrated by plumbing, mechanical, and electrical features, or otherwise, as indicated or required.

1.03 MEASUREMENT AND PAYMENT

- A. General: Firestopping will not be measured separately for payment but will be paid for as part of the Contract lump sum price for Architectural Work.

1.04 REFERENCES

- A. American Society for Testing and Materials (ASTM):

- 1. ASTM C475 Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board
- 2. ASTM E119 Standard Test Methods for Fire Tests of Building Construction and Materials
- 3. ASTM E814 Standard Test Method for Fire Tests of Penetration Firestop Systems.

- B. Underwriters Laboratories Inc. (UL):

- 1. Building Materials Directory
- 2. Fire Resistance Directory

- C. Warnock Hersey (WH):

- 1. Building Products Directory

1.05 REGULATORY REQUIREMENTS

- A. In addition to the foregoing referenced standards, the regulatory requirements that govern the work of this Section include the following governing code:
 - 1. California Code of Regulations (CCR), Title 24, Part 2, California Building Code, Chapter 7, "Fire and Smoke Protection Features."

1.06 QUALITY ASSURANCE

- A. Materials and installation shall meet or exceed the following requirements:
 - 1. UL or WH Classification and Listing.
 - 2. One-hour and two-hour fire ratings when tested in accordance with ASTM E119.
 - 3. Class 1 (25 or less) flame-spread rating when tested in accordance with ASTM E814.

1.07 SUBMITTALS

- A. General: Refer to Section 01 33 00, Submittal Procedures, and Section 01 33 23, Shop Drawings, Product Data, and Samples, for submittal requirements and procedures.
- B. Shop Drawings: Submit details of firestopping and through-penetration firestopping for indicated installations.
- C. Product Data: Submit product data and installation instructions for indicated applications.
- D. Record Documents: Indicated on record ("as-built") documents locations of each type of firestopping.

1.08 SITE CONDITIONS

- A. Follow manufacturer's instructions for temperature, ventilation, and other conditions required for proper mixing and installing of foam seals and sealants.

1.09 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in the manufacturer's original unopened containers or packages with manufacturer's name, labels, product identification, lot numbers, and mixing and installation instructions, as applicable.
- B. Store materials in the original, unopened containers or packages, and under conditions recommended by the manufacturer.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Requirements: Fire-stopping materials and fire-resistant penetration seals shall conform with the following types, as applicable for the location:
 - 1. Mineral Fiber: Loose or batt mineral-fiber safing insulation, meeting fire-rating and installation requirements indicated.
 - 2. Foam: One-part or two-part silicone foam, manufactured silicone penetrating seal system, meeting fire-rating and installation requirements indicated.
 - a. Color for exposed locations shall be as selected by the Engineer from manufacturer's standard colors.
 - b. Wherever seals are not exposed to view, provide manufacturer's standard color that has the best overall performance characteristics for the application indicated.
 - c. Associated adhesive sealant, damming materials, and solvent shall be as recommended by the foam manufacturer.
 - 3. Gypsum Fireproofing Sealant: Trowelable gypsum compound meeting applicable requirements of ASTM C475 and ASTM E814 for one-hour or two-hour fire rating as indicated for the fire-rated assembly being penetrated.
- B. Fire Stop Sealant: Sealant for the sealing of joints packed with mineral fiber or safing insulation shall be fire stop sealant manufactured for the purpose, meeting fire-rating and installation requirements indicated.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine penetrations and openings to be sealed to determine if conditions are satisfactory for the proper installation of fire-resistant materials and seals. If unsatisfactory conditions exist, do not commence work until such conditions have been corrected.
- B. Verify that items and apparatus penetrating openings are installed and completed before beginning the firestop installation.

3.02 LOCATIONS

- A. Provide firestopping and fire-resistant penetration seals wherever required to preserve fire ratings of building elements at plumbing, mechanical, electrical, and other penetrations.

3.03 INSTALLATION

- A. Install materials in clean, dry openings free of loose material and projections.

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- B. Install materials in accordance with the respective manufacturer's installation instructions, and as required to provide a tight seal and preserve fire ratings at penetrations and openings.
- C. Inspect foam seals following 24-hour cure; add additional foam as required for tight seal; reinspect and add foam until installation is satisfactory.
- D. Install sealant in accordance with manufacturer's installation instructions.

3.04 CLEANING

- A. Remove spilled and excess materials adjacent to penetrations without damaging adjacent surfaces.
- B. Leave finished work in neat, clean condition with no evidence of spillovers or damage to adjacent surfaces.

END OF SECTION 07 84 00