
SECTION 07 84 00

FIRESTOPPING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Provide firestopping as required to maintain effective barrier against spread of flame, smoke and gases, and to retain integrity of time-rated construction as indicated and at following types of locations.
 - 1. Provide at fire rated system perimeters, and at duct, conduit, piping penetrations through time-rated construction, and as required by applicable codes.
 - 2. Coordinate requirements for firestopping with work involving penetrations through fire rated assemblies.
 - 3. Review Project and Contract Documents to ascertain extent of penetrations in fire rated assemblies and methods included in other sections for maintaining fire ratings.
- B. Related Sections:
 - 1. Section 07 90 00: Non-fire rated joint sealants.
 - 2. Section 07 95 00: Expansion joint cover assemblies including integral firestopping.

1.2 ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Coordinate firestopping with fire rated assemblies and penetrations through fire rated assemblies to ensure compliance with applicable codes and regulations to maintain integrity of fire rated assemblies.
 - 1. Firestopping may be integral with some systems and may be specified as part of other systems including mechanical and electrical systems.

1.3 SUBMITTALS

- A. Product Data: Submit manufacturer's literature including data for materials and prefabricated devices, including descriptions sufficient to identify materials and devices on job.
 - 1. Submit Underwriter's Laboratory approval numbers for required fire ratings; approval of other laboratories contingent upon acceptance of applicable authorities.
 - 2. Deferred Approvals: Submit data necessary for applicable authorities for each type of firestopping required including firestopping at fire rated assembly junctures, and penetrations through fire rated assemblies.
- B. Shop Drawings: Submit manufacturer's installation details.

- C. Certificates of Compliance: Submit manufactures' certificates, accompanied by classifications, indicating material or combination of materials used meets requirements specified for flame spread and fire resistance.
 - 1. Certificates to be supported by test reports by nationally recognized testing authority or otherwise satisfactory to authorities.
- D. Manufacturer's Instructions: Maintain copy of manufacturer's installation instructions and recommendations at each work area.

1.4 QUALITY ASSURANCE

- A. Sustainability Requirements: Comply with CALGreen requirements relative to finish material pollution control for sealants.

1.5 DELIVERY, STORAGE, AND HANDING

- A. Deliver materials in their original unopened packages and store in location providing protection from damage and exposure to elements.
- B. Damaged or deteriorated materials shall be removed from site.

PART 2 - PRODUCTS

2.1 SYSTEMS MANUFACTURERS

- A. 3M Fire Protection Products Div./3M Fire Barrier Products.
- B. Hilti, Corp./Hilti Firestop Systems.
- C. Specified Technologies, Inc. (STI)/SpecSeal and Pensil Firestopping.
- D. Substitutions: Refer to Section 01 25 00.

2.2 MATERIALS

- A. System Description: Provide firestopping as required to maintain effective barrier against spread of flame, smoke and gases, and to retain integrity of time-rated construction.
 - 1. Choose products and methods meeting applicable codes and Specification requirements for each firestopping application, subject to Architect's acceptance.
- B. Regulatory Requirements: Comply with California Building Code, Chapter 7 requirements for firestopping, including both F Ratings and T Ratings as applicable.
- C. Design Requirements: Provide materials tested in accordance with following standards, unless otherwise specified.
 - 1. American Society for Testing and Materials (ASTM) Publications:
 - a. ASTM E84, Surface Burning Characteristics of Building Materials.
 - b. ASTM E119, Fire Tests of Building Construction and Materials.
 - c. ASTM E814, Fire Tests of Through-Penetration Fire Stops.
 - d. ASTM E1966, Test Method for Fire-Resistive Joint Systems.

- D. Firestopping Materials: Furnish materials for penetrations in time-rated floor, wall, and partition assemblies capable of preventing passage of flame, smoke, and hot gases.
 - 1. Penetration Test: Furnish materials passing ASTM E814 or E1966 for penetration fire stopping indicating maintenance of time-rated adjacent assemblies.
 - a. Additional Tests: Where required by applicable authorities, provide materials passing ASTM E119 time-temperature fire conditions for fire ratings indicated for assemblies.
 - 2. Flame Spread: ASTM E84 flame spread rating of 25 or less.
 - 3. Smoke Density: ASTM E84 smoke density rating of 450 or less.
- E. Firestopping: Maintain fire rating of assembly in which firestopping is installed, such as floor, partition, or wall, in accordance with ASTM E119 tests.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces and conditions receiving or affecting the work. Do not proceed until unsuitable conditions are corrected.

3.2 INSTALLATION

- A. Install firestopping in accordance with manufacturer's recommendations and installation instructions.
- B. Completely fill void space with firestopping materials regardless of geometric configuration, subject to tolerances established by firestopping manufacturer.
- C. Apply firestopping materials at penetrations of pipes, conduits, and ducts prior to application of insulation.
 - 1. Remove insulation already in place at penetration prior to application of firestopping materials unless insulation meets requirements for fire ratings indicated.

3.3 FIELD QUALITY CONTROL

- A. Inspection: Keep area of work available for inspection by Architect and applicable authorities before and after application of firestopping.

3.4 REPAIR AND CLEAN-UP

- A. Repair damage caused by work of this section; clean exposed surfaces soiled by work and leave work ready to receive following work.
- B. On completion of work, remove debris, excess materials, and equipment from site.

END OF SECTION