

SECTION 07 84 00

FIRESTOPPING

PART 1 - GENERAL

- 1.1 GENERAL CONDITIONS The General Conditions, Supplementary General Conditions and all Sections of Division 1 shall apply to each and every contract and contractor, person or persons supplying material, labor or entering into the work directly or indirectly.
- 1.2 SCOPE Installation of firestopping materials at openings and voids in, or at periphery of fire-rated construction.
- 1.3 RELATED WORK SPECIFIED ELSEWHERE
 - A. Section 07 92 00 - Joint Sealers
 - B. Division 23 - Mechanical
 - C. Division 26 - Electrical
- 1.4 REFERENCES
 - A. ASTM E-814: Fire Tests of Through Penetration Firestops.
 - B. UL 1479: Fire Tests of Through Penetration Firestops.
 - C. UL Building Materials Directory: "Through Penetration Firestop Systems (XHEZ), and Fill, Void or Cavity Materials (XHHW).
 - D. International Building Code (IBC).
 - E. NFPA 101 Life Safety Code.
 - F. NFPA 70: National Electrical Code.
- 1.5 DEFINITIONS
 - A. Firestopping: A material, or combination of materials, to retain the integrity of time rated construction by maintaining an effective barrier against the spread of flame, smoke and gases. It shall be used in specific locations as follows:
 - 1. Duct, cable, conduit and piping penetrations through floor slab and through time rated partitions or fire walls.
 - 2. Openings between floor slabs and curtain walls, including inside hollow curtain walls at the floor slab.
 - 3. Penetrations of vertical service shafts.
 - 4. Openings and penetrations in time rated partitions or fire walls containing fire doors.
 - 5. Locations where specifically shown on the Drawings or where specified in other Sections of the Project Manual.
- 1.6 QUALITY ASSURANCE
 - A. Submit manufacturer's product data, letter of certification, or certified laboratory test report that the material or combination of materials meet the requirements specified in ASTM E-814 and are so classified in UL's Building Materials Directory.

- B. Materials shall meet and be acceptable for use by all three model building codes, Basic/National Building Code, Uniform Building Code, Standard Building Code Per NER-243.
- C. Materials shall meet the requirements of NFPA 101 - Life Safety Code and NFPA 70 - National Electrical Code.

1.7 SUBMITTALS

- A. Submit shop drawings, product data, certificates and manufacturer's installation instructions.
- B. Submit manufacturer's product data for all materials and prefabricated devices, providing descriptions sufficient for identification at the job site. Include manufacturer's instructions for installation.
- C. Submit shop drawings showing proposed material, reinforcement, anchorage, fastenings and method of installation. Construction details shall reflect actual job conditions.

1.8 SEQUENCE/SCHEDULING: Coordinate the work of this Section with work performed under other Sections of the Project Manual.

PART 2 - PRODUCTS

2.1 FIRESTOPPING MATERIALS

- A. Firestop Caulking
 - 1. Materials shall be the following types of products:
 - a. Caulking and putty
 - b. Intumescent wrap strips and sheets
 - c. Restricting collars
 - 2. Acceptable Manufacturer: 3M Fire Protection Products, St. Paul, MN 55144
- B. Mineral Fiber Safing
 - 1. Materials shall be the following products:
 - a. Thermafiber Safing Insulation by USG, unfaced, 4" thick.
 - b. Firecode Compound by USG.
- C. Firestopping material shall be asbestos free and capable of maintaining an effective barrier against flame, smoke and gases in compliance with the requirements of ASTM E-814 and UL 1479.
- D. Materials shall be suitable for the firestopping of penetrations made by steel, glass, plastic and insulated pipe.
- E. On insulated pipe, the fire rating classification must not require removal of the insulation.
- F. The rating of the firestops shall be no less than the rating of the time rated floor or wall assembly.

PART 3 - EXECUTION

3.1 PREPARATION: Clean surfaces to receive firestopping materials. Remove dirt, grease, oil, loose materials, rust or other substances that may affect installation or the fire resistance.

3.2 INSTALLATION

- A. Install firestopping materials as indicated in accordance with manufacturer's instructions.
- B. Seal all holes or voids made by penetrations to ensure an effective fire barrier.

- C. Install firestopping materials so that void openings 4" or larger will support the required floor load, unless the opening is protected from possible loading or traffic.

3.3 FIELD QUALITY CONTROL

- A. Examine firestopped areas to ensure proper installation prior to concealing or enclosing firestopped areas.
- B. Areas of work shall remain accessible until inspection and approval by the applicable code authorities.

END OF SECTION