

**SECTION 07 84 13
PENETRATION FIRESTOPPING**

SECTION INCLUDES

1.01 SECTION 07 84 13 PENETRATION FIRESTOPPING

- A. Requirements for in-horizontal assemblies at floor and roof penetrations, and at penetrations in fire-rated walls.

1.02 REFERENCE STANDARDS

- A. ASTM E814 - Standard Test Method for Fire Tests of Penetration Firestop Systems; 2023a.

RELATED REQUIREMENTS

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

SUBMITTALS

- A. Product Data
 - 1. Catalog sheets, specifications, and installation instructions for each product specified except miscellaneous materials.
- B. Provide schedule for each type of firestopping and location of installation.
- C. Qualification Data: for Installer
- D. Product Test Reports: for each type of firestopping.

CLOSEOUT SUBMITTALS

- A. Installer Certificates: from Installer indicating that firestopping systems have been installed in compliance with requirements and manufacturer's written instructions.

PREINSTALLATION MEETING

- A. Conduct a pre-installation meeting at job site with Authority Representative, Inspector, Contractor, Installer and Architect.

QUALITY ASSURANCE

- A. Installer Qualifications: A firm that has been approved by FM Global according to FM Global 4991, "Approval of Firestop Contractors," or been evaluated by UL and found to comply with its "Qualified Firestop Contractor Program Requirements."

FIELD CONDITIONS

- A. Environmental Limitations: Do not install penetration firestopping system when ambient or substrate temperatures are outside limits permitted by penetration firestopping system manufacturers or when substrates are wet because of rain, frost, condensation, or other causes.
- B. Install and cure penetration firestopping materials per manufacturer's written instructions using natural means of ventilations or, where this is inadequate, forced-air circulation.

PART 2 PRODUCTS

8.01 FIRESTOPPING - GENERAL REQUIREMENTS

- A. Manufacturers:
 - 1. Hilti Construction Chemicals, Inc., Tulsa, OK.
 - 2. The Carborundum Company, Niagara Falls, NY.
 - 3. 3M Fire Protection Products, St. Paul, MN.
 - 4. Bio Fireshield, Inc., Concord, MA
 - 5. Tremco Sealant Division, Tremco LTD, Toronto, Ontario, Canada.
 - 6. Specified Technologies, Inc., Somerville, NJ
 - 7. G. W. R. Grace & Co., Macungie, PA
 - 8. RectorSeal Corp., Houston, TX
- B. Materials:
 - 1. Grout and sealant systems shall meet or exceed requirements as specified in Part 1 of this Section and shall be acceptable to the Authority.

2. Firestopping systems shall meet the requirements of ASTM E814, which include, but are not limited to, the following:
 - a. Prevent flame pass-through.
 - b. Restrict temperature to not exceed 325 degrees Fahrenheit over ambient on side of assembly opposite flames.
 - c. Provide a positive smoke seal.
 - d. Withstand hose stream test.
3. Firestopping materials shall be asbestos-free, emit no toxic or combustible fumes and be capable of maintaining an effective barrier against flame, smoke, gas, and water in compliance with requirements of this Section.
4. Firestopping materials/systems shall be flexible to allow for normal movement of building structure and penetrating items(s) without affecting the adhesion or integrity of the system.
5. Firestopping materials shall not require hazardous waste disposal of used containers/packages.
6. On insulated pipe, the fire-rating classification must not require the removal of the insulation.
7. 7.

PART 3 EXECUTION

9.01 EXAMINATION

- A. Examine and confirm the compatibility of surfaces to receive firestopping materials. Verify that surfaces are sound, clean and dry and are ready to receive the firestopping.
- B. Verify that penetration elements are properly located and securely fixed, with the proper space between the penetration element and surfaces of the opening.

PREPARATION

- A. Protect adjacent surfaces and equipment from damage.
- B. Clean surfaces of opening.

INSTALLATION

- A. Install firestopping system in strict accordance with the manufacturer's instructions to obtain the fire-rating required at the specific location.
- B. Provide escutcheons for piping at each side of penetration.

FIELD QUALITY CONTROL

- A. Inspect all installations to ensure that all work meets the requirements specified.

CLEANING

- A. Remove excess materials, droppings, and debris; remove excess materials from adjacent surfaces.

PROTECTION

- A. Protect firestopping installations from damage until completion of all Project Work.

END OF SECTION 07 84 13