

Thermal and Moisture Protection Fire Stopping (07 84 00)

For questions regarding this section contact: Physical Plant
Mike Vadney, mvadney@albany.edu

Part 1 – General

- Reference: Penetrations in fire-resistance-rated walls

Part 2 – Product

- Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 3M Fire Protection Products, Inc., St. Paul, MN 55144
 - Dap Inc., Dayton, Oh 45401
 - Hilti Construction Chemicals, Inc., Tulsa, OK 74146.
 - Flamesafe - W.R. Grace & Co., Hatfield, PA 19440
 - Johns Manville.
 - Nelson Firestop Products, Tulsa, OK 74145
 - NUCO Industries, Lake Forest, IL 60045.
 - The RectorSeal Corporation, Houston, TX 77023.
 - Specified Technologies Co., Somerville, NJ 08876.
 - Tremco, Inc.; Cleveland, OH 44104.
 - USG Corporation, Chicago, IL.

PENETRATION FIRESTOPPING

- Provide penetration firestopping that is produced and installed to resist spread of fire according to requirements indicated, resist passage of smoke and other gases, and maintain original fire-resistance rating of construction penetrated.
- Penetration fire stopping systems shall be compatible with one another, with the substrates forming openings, and with penetrating items if any.
- Penetrations in Fire-Resistance-Rated Walls:
 - Provide penetration firestopping with ratings determined per ASTM E 814 or UL 1479, based on testing at a positive pressure differential of 0.01-inch wg.
 - Fire-resistance-rated walls include fire walls. F-Rating: Not less than the fire-resistance rating of constructions penetrated.
- Penetrations in Horizontal Assemblies:
 - Provide penetration firestopping with ratings determined per ASTM E 814 or UL 1479, based on testing at a positive pressure differential of 0.01-inch wg (2.49 Pa).
- Horizontal assemblies include floor/ceiling assemblies.
 - F-Rating: At least 1 hour, but not less than the fire-resistance rating of constructions penetrated.
 - T-Rating: At least 1 hour, but not less than the fire-resistance rating of constructions penetrated except for floor penetrations within the cavity of a wall.
- Penetrations in Smoke Barriers: Provide penetration firestopping with ratings determined per UL 1479.
 - L-Rating: Not exceeding 5.0 cfm/sq. ft. (0.025 cu. m/s per sq. m) of penetration opening at 0.30-inch wg (74.7 Pa) at both ambient and elevated temperatures.



- W-Rating: Provide penetration firestopping showing no evidence of water leakage when tested according to UL 1479.
- Exposed Penetration Firestopping: Provide products with flame-spread and smoke developed indexes of less than 25 and 450, respectively, as determined per ASTM E 84.
- VOC Content: Provide penetration firestopping that complies with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24): Architectural Sealants: 250 g/L, Sealant Primers for Nonporous Substrates: 250 g/L, Sealant Primers for Porous Substrates: 775 g/L.
- Provide sealants and putties that are integrally colored by manufacturer so they are readily identifiable as firestopping products. White or light colored products or field-colored products will not be acceptable.
- Accessories: Provide components for each penetration firestopping system that are needed to install fill materials and to maintain ratings required and comply with "Performance Requirements" Article.
- Use only those components specified by penetration firestopping manufacturer and approved by qualified testing and inspecting agency for fire-stopping indicated.
- Accessories include, but are not limited to, the following items:
 - Permanent forming/damming/backing materials, including the following:
 - Semi refractory -fiber or slag/rock-mineral wool-insulation
 - Ceramic fiber
 - Sealants used in combination with other forming/damming/backing