

1. Floor Assembly — Min 8 in. (203 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Floor assembly may also be constructed of any 8 in. (203 mm) thick UL Classified hollow-core Precast Concrete Units*. Max diameter of opening is 4 in. (102 mm).

See Concrete Blocks (CFTV) category in the Fire Resistance Directory for names of manufacturers.

- 2. Through Penetrants One nonmetallic pipe or conduit to be installed concentrically or eccentrically within the firestop system. Annular space between pipe or conduit and edge of opening to be min 0 in. (point contact) to max 1-5/8 in. (41 mm). Pipe to be rigidly supported on both sides of floor-ceiling assembly. The following types and sizes of metallic pipes or conduits may be used:
 - A. Chlorinated Polyvinyl Chloride (CPVC) Pipe Nom 2 in. (51 mm) diam (or smaller) SDR13.5 chlorinated polyvinyl chloride (CPVC) pipe for use in closed (process or supply) piping systems.
 - B. Polyvinyl Chloride (PVC) Pipe Nom 2 in. (51 mm) diam (or smaller) Schedule 40 solid or cellular core polyvinyl chloride (PVC) pipe for use in closed (process or supply) piping systems.
 - C. Rigid Nonmetallic Conduit+ Nom 2 in. (51 mm) diam (or smaller) Schedule 40 polyvinyl chloride (PVC) conduit installed in accordance with Article 347 of the National Electrical Code (NFPA 70).
- 3. Firestop System The firestop system shall consist of the following:
 - A. Packing Material Min 1 in. (25 mm) thickness of 4 pcf mineral wool insulation tightly packed into the opening as a permanent form. Packing material to be installed flush with the bottom surface of floor assembly and recessed from the top surface of the assembly to accommodate the required thickness of fill material.
 - B. Fill, Void or Cavity Materials*-Sealant Min 1/4 in. (6 mm) thickness of fill material applied within the annulus, flush with top surface of floor. An additional 1/4 in. (6 mm) bead shall be installed at penetrant/concrete interface on top surface of floor. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

+Bearing the UL Listing Marking



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