

1. Floor or Wall Assembly — Min 114 mm (4-1/2 in.) thick reinforced lightweight or normal weight (1600-2400 kg/m3 or 100-150 pcf) concrete floor or min 6 in. thick reinforced lightweight or normal weight concrete wall. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 346 mm (13-5/8 in.).

See Concrete Blocks (CAZT) Category in the Fire Resistance Directory for names of manufacturers.

- 2. Metallic Sleeve (Optional) Nom 356 mm (14 in.) diam (or smaller) Schedule 10 (or heavier) steel pipe.
- 3. Through Penetrants One metallic pipe or tubing to be installed concentrically within the firestop system. Pipe or tubing to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes or tubing may be used:
 - A. Steel Pipe Nom 152 mm (6 in.) diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - B. Copper Pipe Nom 152 mm (6 in.) diam (or smaller) Regular (or heavier) copper pipe.
 - C. Copper Tubing Nom 152 mm (6 in.) diam (or smaller) Type L (or heavier) copper tubing.
- 4. Pipe Covering Nom 76 mm (3 in.) thick hollow cylindrical heavy density (min 56 kg/m3 or 3.5 pcf) glass fiber units jacketed on the outside with an all-service jacket. Longitudinal joints sealed with metal fasteners or factory-applied, self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. The annular space betweeen the insulated pipe and the edges of the periphery of the opening shall be 13 mm (1/2 in.).

See Pipe Equipment Covering — Materials — (BRGU) Category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

- 5. Firestop System The firestop system shall consist of the following:
 - A. Packing Material Min 76 mm (3 in.) thickness of min 4 pcf mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of fill material.
 - B. Fill, Void or Cavity Material* Sealant Min 38 mm (1-1/2 in.) thickness of fill material applied within the annulus, flush on top surface of floor or with both surfaces of wall. When steel pipe (Item 3A) larger than 102 mm (4 in.) diam and FS-ONE MAX Intumescent Sealant is used, a 13 by 13 mm (1/2 by 1/2 in.) bead of sealant shall be installed around periphery of insulated steel pipe at top surface of floor or at both surfaces of wall.

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.



Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. January 08, 2016