

System No. C-AJ-2887

System tested with a pressure differential of 2.5 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side.

- Floor or Wall Assembly Min 4-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete floor or wall. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 6 in. (152 mm). See Concrete Blocks (CAZT) in the Fire Resistance Directory for names of manufacturers.
- Steel Sleeve (Optional) Nom 6 in. (152 mm) diam (or smaller) cylindrical sleeve fabricated from min 30 gauge galv sheet steel and having a min 1 in. (25 mm) lap along the longitudinal seam with overlap crimped together. The ends of the steel sleeve shall be flush with each surface of the floor or wall.
- 2A. Nonmetallic Sleeve (Optional) Nom 6 in. (152 mm) diam (or smaller) Schedule 40 (or heavier) solid or cellular core polyvinyl chloride (PVC) sleeve cast or grouted into floor or wall assembly, flush with floor or wall surfaces.
- 3. Through Penetrants One nonmetallic pipe to be installed concentrically or eccentrically within the firestop system. Annular space within the firestop system is dependent upon the max diam and type of penetrant used as tabulated in Item 4A. Pipe to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of nonmetallic pipes may be used:
 - A. High Density Polyethylene (HDPE) Pipe Nom 4 in. (102 mm) diam (or smaller) SDR11 HDPE pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

The T, FT and FTH Ratings for the firestop system are 2 hr except that for nom penetrant diam of 2 in. (51 mm) or less, the T, FT and FTH Ratings are 1/4 hr.

4. Firestop System — The firestop system shall consist of the following:

A. Fill, Void or Cavity Material* — Wrap Strip — Nom 3/16 in. (4.8 mm) thick by 1-3/4 in. (44 mm) wide intumescent wrap strip. Layers of wrap strip are continuously wrapped around the pipe with ends tightly butted and held in place with tape. Wrap strip installed within the opening and recessed from top surface of floor or from both surfaces of wall to accommodate the required thickness of sealant (Item 4B). The number of layers for a given size penetrant is shown in table below:

Max Pipe Diam, in. (mm)	Max Opening Diam, in. (mm)	Annular Space Min, in. (mm)	Annular Space Max, in. (mm)	Number of Layers
2 (51)	3-1/2 (89)	3/8 (10)	3/4 (19)	2
4 (102)	6 (152)	9/16 (18)	1 (25)	3

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC - CP648-E W45/1-3/4" Firestop Wrap Strip

B. Fill, Void or Cavity Material* — Sealant — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor of both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC - FS-ONE MAX Intumescent Sealant

- C. Packing Material (Not Shown) When steel sleeve (Item 2) is used and nom penetrant diam exceeds 2 in. (51 mm), min 2 in. (51 mm) thickness of min 4 pcf (64 kg/m3) mineral wool batt insulation shall be firmly packed into opening as a permanent form, recessed from top surface of floor or both surfaces of wall, to accommodate the required thickness of Fill Material (Item 4B).
- * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



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