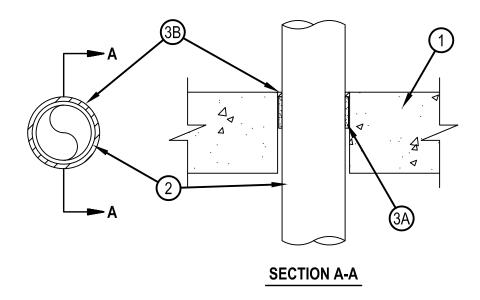


System No. C-AJ-2372

F Rating - 3 Hr T Rating - 1/4 Hr W Rating - Class 1 (See Item 3B)



- 1. Floor or Wall Assembly Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified solid or filled Concrete Blocks*. Max diameter of opening is 4 in. (102 mm). See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
- 2. Through Penetrants One nonmetallic pipe to be installed either concentrically or eccentrically within the firestop system. Annular space between pipe and edge of opening shall be min 3/16 in (5 mm) to max 5/16 in. (8 mm). 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. Polyvinyl Chloride (PVC) Pipe Nom 3 in. (76 mm) diam (or smaller) Schedule 40 solid or cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
 - B. Chlorinated Polyvinyl Chloride (CPVC) Pipe Nom 3 in. (76 mm) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) piping systems.
- 3. Firestop System The firestop system shall consist of the following:
 - A. Fill, Void or Cavity Material* Wrap Strip One layer of intumescent wrap strip wrapped around the pipe with ends butted and held in place with aluminum tape. Wrap installed recessed max 2-1/2 in. (64 mm) from bottom surface of floor. In walls, wrap strip recessed from both surfaces of wall to accommodate fill material. Size of wrap strip for a given size pipe are shown in table below.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP648-E W25/1" or CP648-E W45/1-3/4" Wrap Strip

Product Designation	Max Pipe Size, in. (mm)	Nom. Wrap Strip Width, in. (mm)	
CP648-E W25/1"	1.5 (38)	1 (25)	
CP648-E W45/1-3/4"	1.5 (38)	1-3/4 (45)	
CP648-E W25/1"	2 (51)	1 (25)	
CP648-E W45/1-3/4"	2 (51)	1-3/4 (45)	
CP648-E W45/1-3/4"	3 (76)	1-3/4 (45)	



System No. C-AJ-2372

A1. Fill, Void or Cavity Material* - Wrap Strip — As an alternate to the material in Item 3A, one layer of intumescent wrap strip is continuously wrapped around the pipe with ends butted and held in place with integrated fastening tape. Wrap strip installed recessed max 2-1/2 in. (64 mm) from bottom surface of floor. In walls, wrap strip recessed from both surfaces of wall to accommodate fill material. Size of wrap strip for a given size penetrant are shown in the table below.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP648-S-1.5" US, CP648-S-2" US or CP648-S-3" US Wrap Strip

Product Designation	Max Pipe Size, in., (mm)	Nom. Wrap Strip Length, in., (mm)	Nom. Wrap Strip Thickness, in., (mm)	Nom. Wrap Strip Width, in., (mm)
CP648-S-1.5" US	1.5 (38)	6.5 (165)	0.18 (5)	1 (25)
CP648-S-2" US	2 (51)	8 (203)	0.18 (5)	1 (25)
CP648-S-3" US	3 (76)	11.5 (292)	0.18 (5)	1-3/4 (45)

B. Fill, Void or Cavity Material* - Sealant — Min 1/4 in. (6 mm) thickness of fill material applied within the annulus, flush with top surface of floor or both surfaces of wall. W Rating applies only when CP 601S Sealant, CFS-S SIL GG, CFS-S SIL SL (floors only) or CP 604 Sealant is used. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant, FS-ONE MAX Intumescent Sealant, CP 601S Sealant, CFS-S SIL GG, CFS-S SIL SL (floors only) or CP 604 Sealant

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