



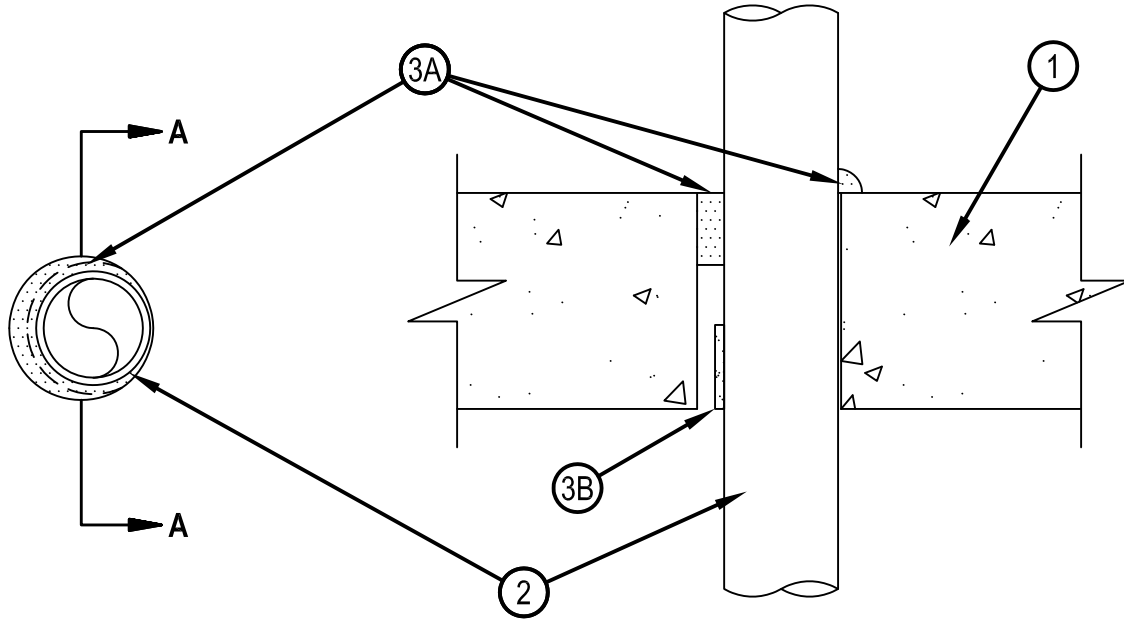
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System No. F-A-2009

F Rating - 2 Hr
FT Rating - 2 Hr
FH Rating - 2 Hr
FTH Rating - 2 Hr



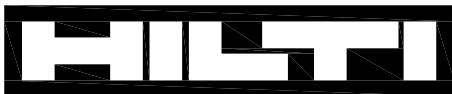
FA 2009



SECTION A-A

System tested with a pressure differential of 50 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side.

1. Floor Assembly — Min 114 mm (4-1/2 in.) thick reinforced lightweight or normal weight 1600-2400 kg/cu m (100-150 pcf) concrete. Floor may also be constructed of any 152 mm thick UL Classified hollow core Precast Concrete Units. Max diam of opening is 76 mm (3 in.)
See Concrete Blocks (CAZT) and Precast Concrete Units* (CFTV) categories in the Fire Resistance Directory for names of manufacturers.
 2. Through Penetrants — One nonmetallic pipe to be installed either eccentrically or concentrically within the firestop system. The annular space shall be min 1.6 mm (1/16 in.) to max 14 mm (9/16 in.) Pipe to be rigidly supported on both sides of floor assembly. The following types and sizes of nonmetallic pipes may be used:
 - A. Polyvinyl Chloride (PVC) Pipe — Nom 51 mm (2 in.) diam Schedule 40 cellular or solid core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
 - B. Crosslinked Polyethylene (PEX) Tubing — Nom 51 mm (2 in.) diam (or smaller) SDR 9 PEX tubing for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
 - C. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 51mm (2 in.) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) piping systems.
 - D. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 51 mm (2 in.) diam (or smaller) SDR 11 CPVC for use in closed (process or supply) piping systems.
- IPEX INC — AquaRise



Hilti Firestop Systems

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

A. Fill, Void Or Cavity Material - Sealant — Min 38 mm (1-1/2 in.) thickness of fill material applied within the annulus, flush with top surface of floor. A 13 mm (½ in.) diam bead of caulk shall be applied at the 1.6 mm (1/16 in.) annular space between the pipe and periphery of opening on top surface of floor. In hollow-core floor assemblies, an additional min 13 mm (1/2 in.) thickness of fill material shall be applied within the annulus, flush with the bottom surface of the floor assembly.

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

B. Fill, Void or Cavity Material* - Wrap Strip — Nom 6 mm (1/4 in.) thick by 51 mm (2 in.) wide intumescent wrap strip. One layer of wrap strip wrapped around the through-penetrant to max extent possible and held in place with wire or tie wire. Wrap strip installed flush with bottom surface of floor.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP648E Wrap Strip 4.8 mm thick by 44 mm wide (3/16 thick by 1-3/4 wide).

* 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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