



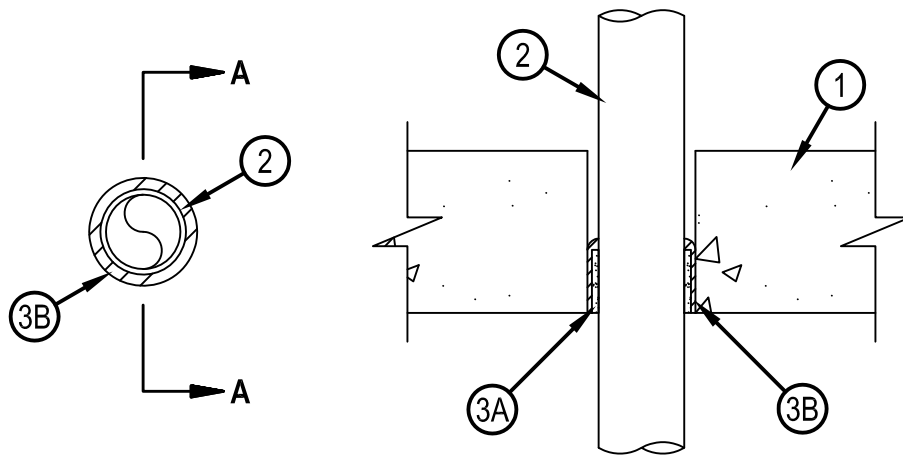
Classified by
Underwriters Laboratories, Inc.
to UL 1479

System No. C-AJ-2639

F Rating — 2 Hr

T Rating — 2 Hr

CAJ 2639



SECTION A-A

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 Concrete Blocks*. Max diam of opening is 3 in. (76 mm).
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
 - 1A. Steel Deck/Floor Assembly — (Not Shown) — As an alternate to Item 1, the floor assembly may consist of a min 2 hr fire rated fluted steel deck/concrete floor assembly. The floor assembly shall be constructed of the materials and in the manner described in the individual Floor-Ceiling Design in the UL Fire Resistance Directory and shall include the following construction features:
 - A. Steel Floor and Form Units — Min 1-1/2 in. (38 mm) deep galv fluted units.
 - B. Concrete — Min 3-1/2 in. (89 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete, as measured from the top plane of the floor units.
2. Nonmetallic Pipe — One nonmetallic pipe centered within opening with a nom 5/16 in. (8 mm) annular space between penetrant and periphery of opening. Penetrant to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of penetrants may be used:
 - A. Flame Retardant Polypropylene (FRPP) Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
 - B. Polyvinylidene Fluoride (PVDF) Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 PVDF pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
3. 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 material. One layer of wrap strip wrapped around the through penetrant with the ends butted and held in place with tape. In concrete slab floors, the bottom surface of the wrap strip shall be flush with the bottom surface of the floor. In steel deck/concrete floors, the bottom surface of the wrap strip shall be flush with the steel deck at the highest elevation of the floor opening. In wall assemblies, one wrap strip is installed on each side with exposed edges of wrap strip flush with wall surfaces.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 648E Wrap Strip
 - B. Fill, Void or Cavity Material* — Sealant — Generous bead of sealant applied to leading edge of wrap strip prior to insertion into annular space. Sufficient sealant shall be applied to cover lead edge of wrap strip and to fill annular space between the wrap strip and the concrete.
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.



Hilti Firestop Systems

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