



Classified by
Underwriters Laboratories, Inc.
to CAN/ULC-S115

System No. C-AJ-2065

F Rating — 2 Hr

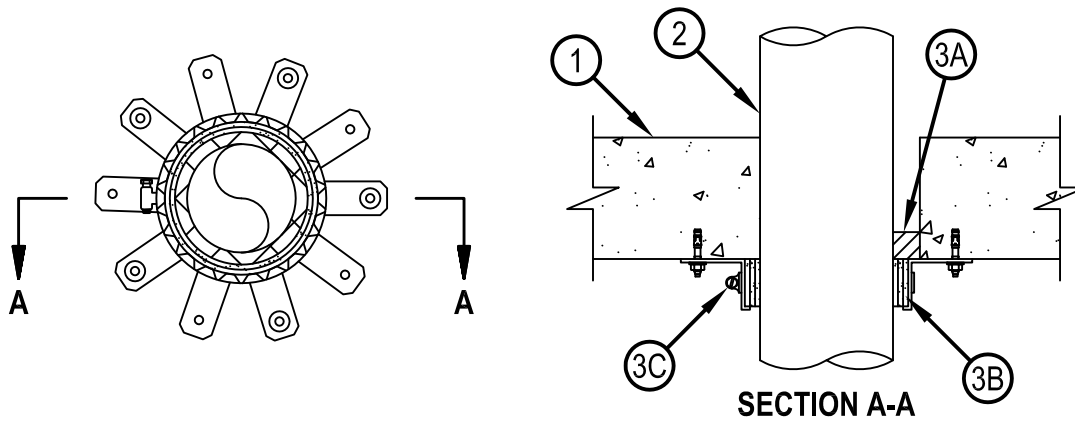
FT Rating — 2 Hr

FH Rating — 0 or 2 Hr (See Item 2)

FTH Rating — 0 or 2 Hr (See Item 2)



CAJ 2065



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.

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 127 mm (5 in.) thick reinforced lightweight or normal weight (1600-2400 kg/m³ or 100-150 pcf) concrete wall. Floor may also be constructed of any min 152 mm (6 in.) thick UL Classified hollow core Precast Concrete Units*. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 152 mm (6 in.) for 125 mm (5 in.) diam pipe, 178 mm (7 in.) for hollow core precast concrete units and 229 mm (9 in.) for 200 mm (8 in.) diam pipe.

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 concentrically or eccentrically within the firestop system. The annular space between the pipe and the periphery of the opening shall be a minimum of 0 mm (point contact) to a max of 25 mm (1 in). Pipe to be rigidly supported on both sides of the floor or wall assembly. When item B is installed, the FH and FTH ratings are 0 hrs. The following type and sizes of nonmetallic pipe may be used:

A. Polypropylene (PP) Pipe — Nom 125 mm (5 in.) diam (or smaller) PP pipe for use in closed (process or supply) piping system.

AQUATHERM — Fusiotherm SDR 7.4 or Greenpipe with Faser

B. Polypropylene (PP) Pipe — Nom 200 mm (8 in.) diam (or smaller) PP pipe for use in closed (process and supply) piping systems.

AQUATHERM — Fusiotherm SDR 11 or Greenpipe with Faser



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 25 mm (1 in.) thickness of fill material applied within the annulus, flush with bottom surface of floor or both surfaces of wall.

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 5 mm (3/16 in.) thick by Nom 44 mm (1-3/4 in.) wide intumescent wrap strip is continuously wrapped around the outer circumference of the pipe with ends held in place with tape. Three layers of wrap strip required for max 152 mm (6 in.) diam pipe. Four layers of wrap strip required for max 200 mm (8 in.) diam pipe. Wrap strip butted tightly against bottom surface of floor or both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP648-E Wrap Strip

C. Steel Collar — Steel collar fabricated from coils of precut min 0.4 mm (0.016 in.) thick (No. 28 gauge) galv steel available from fill material manufacturer. Collar shall be nom 44 mm (1-3/4 in.) deep with 25 mm (1 in.) wide by 51 mm (2 in.) long anchor tabs on 44 mm (1-3/4 in.) centers for securement to the underside of floor or both surfaces of wall. The opposite side incorporates retainer tabs, 13 mm (1/2 in.) wide by 5 mm (3/16 in.) long, pre-bent toward the pipe surface. Collar shall be tightly wrapped over the wrap strip, overlapping min. 25 mm (1 in.) at seam. A nom 13 mm (1/2 in.) wide stainless steel hose clamp shall be secured to the collar at its mid-height. Every other anchor tab of collar secured to concrete slab with 6 mm (1/4 in.) diam by 32 mm (1-1/4 in.) long steel expansion type masonry fasteners, 32 mm (1-1/4 in.) long concrete screw anchors or 3.5 mm (0.145 in.) diam by 32 mm (1-1/4 in.) long powder actuated fasteners utilizing a nom 15 mm (9/16 in.) diam steel washer. As alternates to the anchors specified above, Hilti 6 mm (1/4 in.) diam by 32 mm (1-1/4 in.) long KWIK-CON II+ concrete screw anchor or Hilti 6 mm (1/4 in.) diam by 44 mm (1-3/4 in.) long KWIK-BOLT 3 steel expansion anchor, or Hilti X-U 27 P8S15 powder actuated floor pin with integral nom 15 mm (9/16 in.) diam steel washer may be used. In floor assemblies, one collar to be used at the bottom of the concrete floor only. In wall assemblies, a collar is used on both wall surfaces.

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

