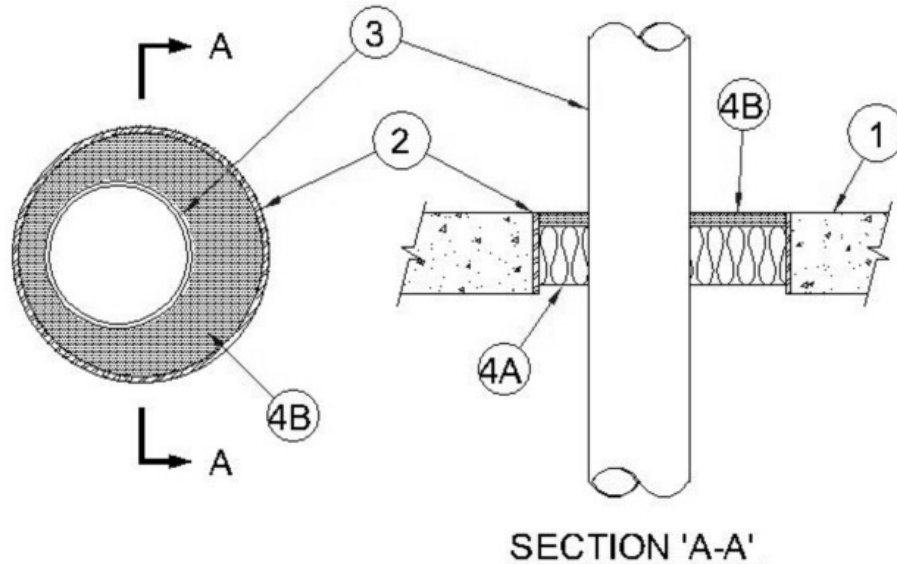


ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 3 Hr	F Rating — 3 Hr
T Rating — 0 Hr	FT Rating — 0 Hr
	FH Rating — 3 Hr
	FTH Rating — 0 Hr



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/m<sup>3</sup>) concrete. Floor may also be constructed of any min 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 6 in. (152 mm)  
 See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. **Nonmetallic Sleeve (Optional)** — Nom 6 in. (152 mm) diam (or smaller) Schedule 40 polyvinyl chloride (PVC) pipe cast or grouted into floor or wall assembly, flush with floor or wall surfaces.
3. **Through Penetrants** — One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space shall be min 1/4 in. (6 mm) to max 1-3/4 in. (44 mm). Pipe, conduit or tubing to be rigidly supported on both sides of floor or wall assembly. The following types of conduit, tubing or pipe may be used:
  - A. **Conduit** — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or steel conduit.
  - B. **Copper Tubing** — Nom 4 in. diam (102 mm) (or smaller) Type M (or heavier) copper tubing.
  - C. **Steel Pipe** — Nom 4 in. (102 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
4. **Firestop System** — The firestop system shall consist of the following:
  - A. **Packing Material** — Min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool batt insulation tightly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of fill material.
  - B. **Fill, Void or Cavity Material\* - Caulk** — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall. When the floor is constructed of hollow-core precast concrete units, fill material shall be installed symmetrically on both sides of floor, flush with both floor surfaces.  
**RECTORSEAL** — FlameSafe® FS900+, [Metacaulk MC 150+](#), FlameSafe FS1900 [Metacaulk 1000](#), [Metacaulk 350i](#), Biostop BF [150+](#), Biostop 350i or Biostop 500+

\*,+ 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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