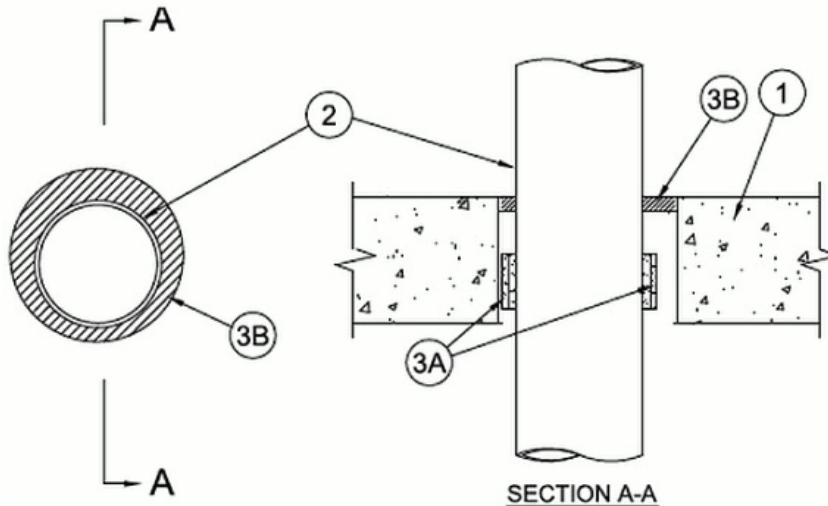


ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating At Ambient — Less Than 1 CFM/ft ²	FH Rating — 2 Hr
L Rating At 400°F — Less Than 1 CFM/ft ²	FTH Rating — 0 Hr
W Rating - Class 1 (See Item 3B and 3C)	L Rating At Ambient — Less Than 5.1 L/s/m ²
	L Rating At 204°C — Less Than 5.1 L/s/m ²



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 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*. Floor may also be constructed of any 6 in. (152 mm) thick UL Classified hollow core Precast Concrete Units*. Max diam of opening is 6 in. (152 mm). See **Concrete Blocks** (CAZT) and **Precast Concrete Units** (CFTV) category in the Fire Resistance Directory for names of manufacturers.

2. Through Penetrant — One nonmetallic pipe to be installed concentrically or eccentrically within the firestop system. Annular space within the firestop system is dependent upon the max diam and type of penetrant as shown in Table 1. When W Rating applies, annular space shall be a min 1/2 in. (13 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 or uPVC) Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 cellular or solid core PVC or uPVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.

B. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 4 in. (102 mm) diam (or smaller) SDR 17 CPVC pipe for use in closed (process or supply) piping systems.

C. Polyvinyl Chloride-XFR (PVC-XFR) Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 solid core PVC-XFR pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems

D. Acrylonitrile Butadiene Styrene (ABS) Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 cellular or solid core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

E. Rigid Nonmetallic Conduit+ — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with the National Electrical Code (NFPA 70).

F. Crosslinked Polyethylene (PEX) Tubing — Nom 1 in. (25 mm) diam (or smaller) SDR 9 PEX tubing for use in closed (process or

supply) piping systems.

G. 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.

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

A. Fill, Void or Cavity Materials* — Nom 2 mm thick by 3 in. (76 mm) wide intumescent joint strip (See Table 1). Strips tightly wrapped around the outer circumference of the pipe with ends butted and held in place with tape. Joint strip slid into the annular space with the bottom edge of the joint strip recessed 3/4 in. (18 mm) from bottom surface of floor or both surfaces of wall.

RECTORSEAL — [Metacaulk Joint Strip](#), Flame Safe Joint Strip, Biostop Joint Strip

Table 1:

Penetrant Item	Nom Diam of Pipe In. (mm)	No. of layers	Min Annular Space in. (mm)	Max Annular Space in. (mm)	Max Opening Diam In. (mm)	Sealant Thickness In. (mm)
A, B, C	4(102)	2	3/16 (4.8)	1/2 (12.7)	5 (127)	1/4 (6)
D	4(102)	4	3/8 (9.5)	3/4 (19)	6 (152)	1/4 (6)
D	3(76)	3	1/4 (6)	3/4 (19)	5 (127)	1/4 (6)
D	2(51)	2	3/16 (4.8)	3/4 (19)	4 (102)	1/4 (6)
E, G	2(51)	2	3/16 (4.8)	3/4 (19)	4 (102)	1/4 (6)
F	1(25)	2	3/16 (4.8)	3/4 (19)	3 (76)	1/4 (6)

B. Fill, Void or Cavity Material* — Caulk — Min 1/4 in. (6 mm) thickness (see Table 1) of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall assembly. When FRPP penetrant (Item 2F) and/or hollow core floor is used, sealant to be applied flush with top and bottom of floor.

RECTORSEAL — [Metacaulk 1000](#), [Metacaulk 150+](#), [Metacaulk 350i](#), Biostop 500+, Biostop 350i.

W Rating applies only when [Metacaulk 1000](#) or Biostop 500+ is used.

C. Packing Material — (Optional, not shown) — When W Rating applies, packing material is required. Min 4 pcf (64 m³) mineral wool batt insulation firmly packed into opening or min 1 in. (25 mm) diam backer rod friction fitted into the opening as a 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.

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