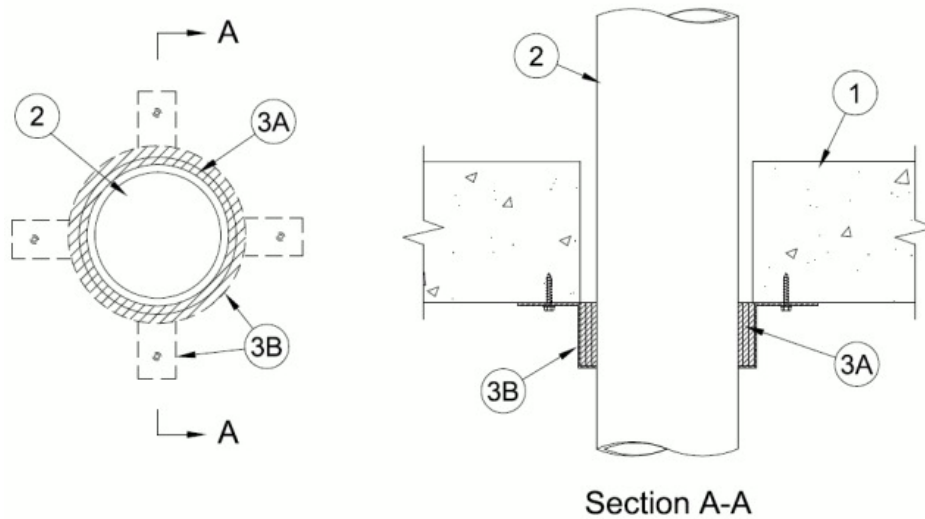


F Rating — 2 Hr
T Rating — 2 Hr



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/m³) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Floor may also be constructed of any min 6 in. (152 mm) thick UL Classified hollow-core **Precast Concrete Units***. Opening to be max 1-1/16 in. (27 mm) larger than outside diam of nonmetallic pipe. Max diam of opening is 6 in. (152 mm).

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 within the firestop system. The annular space between the pipe and periphery of opening shall be max 1/2 in. (13 mm). Pipe to be rigidly supported on both sides of the floor or wall assembly. The following types and sizes of nonmetallic pipes may be used:

A. Polypropylene (PP-R) Pipe — Nom 4 in. diam - 125 mm OD (or smaller) SDR 17.6 MF Aquatherm Blue Pipe for use in closed (process or supply) piping systems.

B. Polypropylene (PP-RCT) Pipe — Nom 4 in. diam - 125 mm OD (or smaller) SDR 17 Niron Clima Pipe or Niron CoolPro Pipe for use in closed (process or supply) piping systems.

C. Polypropylene (PP-R) Pipe — Nom 4 in. diam - 125 mm OD (or smaller) SDR 7.4 and SDR 11 MF Aquatherm Blue Pipe for use in closed (process or supply) piping systems.

D. Polypropylene (PP-RCT) Pipe — Nom 4 in. diam - 125 mm OD (or smaller) SDR 7.4 and SDR 11 Niron Clima Pipe for use in closed (process or supply) piping systems.

E. Polypropylene (PP-R) Pipe — Nom 4 in. diam - 125 mm OD (or smaller) SDR 7.4 and SDR 11, MF and S, Aquatherm Green Pipe for use in closed (process or supply) piping systems.

F. Polypropylene (PP-RCT) Pipe — Nom 4 in. diam - 125 mm OD (or smaller) SDR 7.4 and SDR 11, Niron CoolPro Pipe for use in closed (process or supply) piping systems.

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

A. Fill, Void or Cavity Material* - Wrap Strip — Nom 1/4 in. (6 mm) thick by 2 in. (51 mm) wide intumescent wrap strip wrapped around the outer circumference of the pipe on bottom of floor or on each side of the wall. Three layers of wrap strip shall be used with nom 3 in. - 90 mm OD diam and larger pipes. Two layers of wrap strip shall be used with nom pipe diams less than 3 in. - 90 mm OD. Wrap strip installed in individually wrapped layers having butted ends offset in successive layers, or in continuous layers. Edge of wrap strip to be flush with the bottom surface of floor or both surfaces of wall. Wrap strip temporarily secured with tape or tie wire.

RECTORSEAL — [Metacaulk Wrap Strip](#), Biostop Wrap Strip, FlameSafe Wrap Strip

B. Steel Collar — Collar fabricated from coils of precut min 0.016 in. thick (0.41 mm) galv steel available from fill material manufacturer shall be installed to restrain wrap strip. Collar shall be nom 2 in. (51 mm) deep with 1 in. (25 mm) wide by 1-1/2 in. (38 mm) long anchor tabs located 4 in. (102 mm) on center for attachment to the underside of floor or both surfaces of wall. In addition, collar provided with 1/2 in. (13 mm) wide by 3/4 in. (19 mm) long retainer tabs opposite the anchor tabs. Collar shall be wrapped over the wrap strip, overlapping min 1 in. (25 mm) and secured with two 3/8 in. (9.5 mm) long steel screws or stainless steel hose clamp. The retainer tabs

are folded 90 deg towards the pipe to maintain the annular space around the pipe and to retain the wrap strip. Collar secured to bottom surface of the floor or both surfaces of wall at each anchor tab by means of min 1/4 in. (6 mm) diam by 1-1/4 in. (32 mm) long steel expansion bolts or steel Tapcon® concrete anchors in conjunction with 1/4 in. (6 mm) by 5/8 in. (16 mm) diam washers.

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