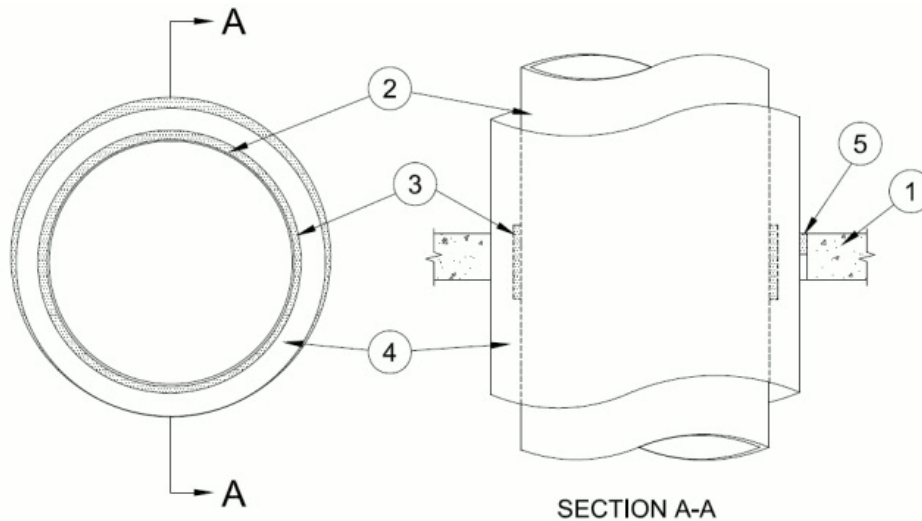


F Rating — 2 Hr
T Rating — 2 Hr



1. Floor or Wall Assembly — Min 4-1/2 in. (114 mm) thick lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete. Floor may also be constructed of any min 6 in. (152 mm) thick hollow-core **Precast Concrete Units***. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening to be 14-1/2 in. (368 mm). Max diam of opening in hollow-core precast concrete units is 7 in. (178 mm).

See **Concrete Blocks (CAZT)** or **Precast Concrete Units (CFTV)** categories in the Fire Resistance Directory for names of manufacturers.

2A. Polypropylene (PP) Pipe — Nom 10 in. (250 mm OD) diam (or smaller) Aquatherm blue pipe SDR 17.6 for use in closed (process or supply) piping systems. Pipe to be rigidly supported on both sides of the floor or wall assembly.

2B. Polypropylene (PP-RCT) Pipe — Nom 10 in. (250 mm OD) diam (or smaller) Niron Clima Pipe or Niron CoolPro Pipe SDR 17 for use in closed (process or supply) piping systems. Pipe to be rigidly supported on both sides of the floor or wall assembly.

3. Firestop Device — Galvanized steel sleeve lined with an intumescent material sized 8 in. (203 mm) wide and sized to fit around the pipe. Two layers of sleeves to be tightly wrapped around outer circumference of pipe prior to the installation of the pipe covering (Item 4). Sleeves are held in place with reinforced tape and installed through the annular space of the opening and centered within the floor or wall opening.

RECTORSEAL — [Metacaulk Intumescent Sleeve](#), Biostop Intumescent Sleeve or FlameSafe Intumescent Sleeve.

4. Pipe and Equipment Covering Materials* — Nom 2 in. (51 mm) thick hollow cylindrical heavy density (min 3.5 pcf or 48 kg/m³) glass fiber units jacketed on the outside with an all service jacket. An approximate 1/4 in. (6 mm) deep by 8 in. (203 mm) groove to be cut from the inside of the pipe covering to tightly fit around the outside of the sleeves on the pipe. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. The annular space within the firestop system shall be a min 0 in. (point contact) to max 1/2 in. (13 mm).

See **Pipe and Equipment Covering — Materials (BRGU)** category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

5. Fill, Void or Cavity Material* - Sealant — Min 2 in. (51 mm) thickness of fill material installed flush with top surface of floor or both surfaces of wall. At point contact location, min. 1/2 in. (13 mm) diam of sealant applied at the pipe covering/concrete interface.

RECTORSEAL — [Metacaulk 1000](#), [Metacaulk 350i](#), Biostop 350i, Biostop 500+ or FlameSafe FS1900

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