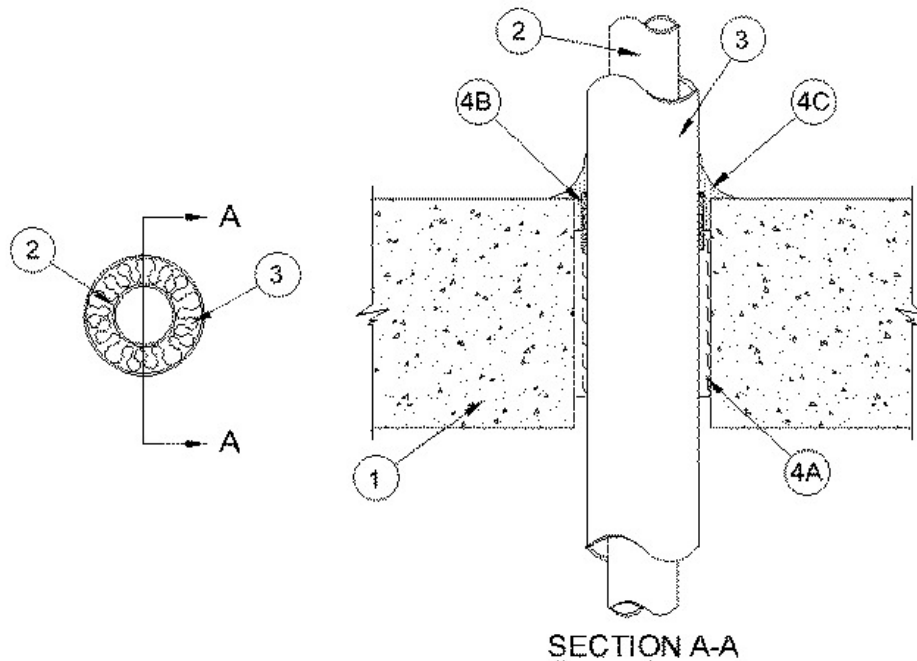


F Rating — 2 Hr  
 T Rating — 1/2 Hr



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/m<sup>3</sup>) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks**\*. Max diam of opening is 8 in. (203 mm). See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Through Penetrant** — One metallic pipe or conduit to be installed either concentrically or eccentrically within the firestop system. Pipe or conduit to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or conduit may be used:

- A. **Steel Pipe** — Nom 4 in. (102 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
- B. **Iron Pipe** — Nom 4 in. (102 mm) diam (or smaller) cast or ductile iron pipe.
- C. **Copper Pipe** — Nom 2 in. (51 mm) diam (or smaller) Regular (or heavier) copper pipe
- D. **Conduit** — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic conduit.

3. **Pipe Covering\*** — **Plastics+** — Nom 1 in. (25 mm) thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. The annular space shall be min 1/2 in. (13 mm) to max 1 in. (25 mm). See **Plastics+** (QMFZ2) category in the Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.

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

A. **Fill, Void or Cavity Materials\* - Wrap Strip** — Nom 1/4 in. (6 mm) thick by 2 in. (51 mm) wide intumescent wrap strips. One layer of wrap strip is wrapped tightly around the penetrant insulation with the ends butted and held in place with duct tape. Wrap strip to extend 1/8 in. (3 mm) above the top surface of the floor or both surfaces of the wall.

**RECTORSEAL** — [Metacaulk Wrap Strip](#)

B. **Packing Material** — Min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or both surfaces of wall as required to accommodate the required thickness of fill material.

C. **Fill, Void or Cavity Material\* - Caulk** — Min 1/4 in. (6 mm) thickness of fill material applied within the annulus on top surface of floor or both surfaces of wall and overlapping 1 in. onto pipe insulation and concrete.

**RECTORSEAL** — [Metacaulk 1200](#) Spray, [Metacaulk 1200 Caulk Grade](#) or [Metacaulk 1200](#) SL (floors only)

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\*,+ 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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