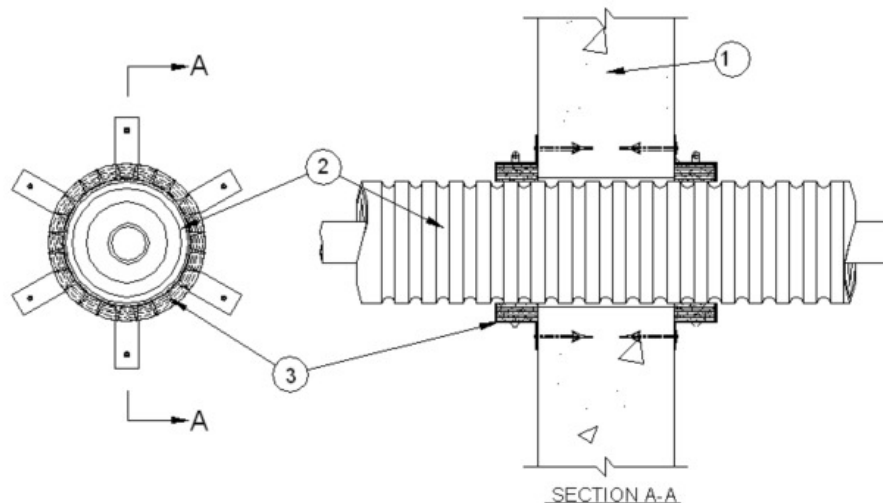


F Rating —2 Hr
T Rating —2 Hr
L Rating at Ambient - less than 1 CFM/ft² (See Item 3C)
L Rating At 400° F - Less than 1 CFM/ft² (See Item 3C)



1. **Wall Assembly** — Min 6 in. (152 mm) thick lightweight or normal weight (100-150 pcf or 1600 - 2400 kg/m³) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 7-1/2 in. (191 mm).

See **Concrete Blocks (CAZT)** category in the Fire Resistance Directory for names of manufacturers.

2. **Nonmetallic Pipe** — Nom 2 in. (51 mm) diam (or smaller) UPONOR - ECOFLEX pre insulated cross-linked polyethylene (PEX) pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems. The ECOFLEX pipe is constructed of a PEX pipe, layers of insulation and an outer sheath. Pipe insulation is multi layered polyolefin foam. One pipe to be installed concentrically or eccentrically within the firestop system with an annular space of min 0 in. (point contact) to max 5/8 in. (16 mm) Pipe to be rigidly supported on both sides of wall assembly.

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

A. **Fill, Void or Cavity Material* - Wrap Strip** — Two layers of nom 1/4 in. thick by 2 in. wide intumescent wrap strip individually wrapped around the outer circumference of the penetrant. Butted ends in successive layers shall be offset. Wrap strip butted tightly against both surfaces of wall. Wrap strip secured with tape or tie wire.

RECTORSEAL — [Metacaulk Wrap Strip](#)

B. **Steel Collar** — Collar fabricated from coils of precut min 0.016 in. thick (No. 28 gauge) galv steel available from fill material manufacturer. Collar shall be nom 2 in. deep with 1 in. wide by 1-1/2 in. long anchor tabs on 4 in. centers in order to secure to both surfaces of wall. In addition, collar contains retainer tabs, 1/2 in. wide by 3/4 in. long, located opposite the anchor tabs. Collar shall be wrapped over the wrap strip, overlapping min 1 in. 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 both surfaces of wall at each anchor tab by means of 1/4 in. x 1-1/4 in. Tapcons in conjunction with 1/4 in. by 5/8 in. diam washers.

C. **Fill void Cavity material* -Sealant** — (Optional Not Shown) Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall.

RECTORSEAL — [METACALK 1000](#), [METACALK 150+](#) or [METACALK 1200](#)

The L Rating only applies when Item 3C is used.

*,+ 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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