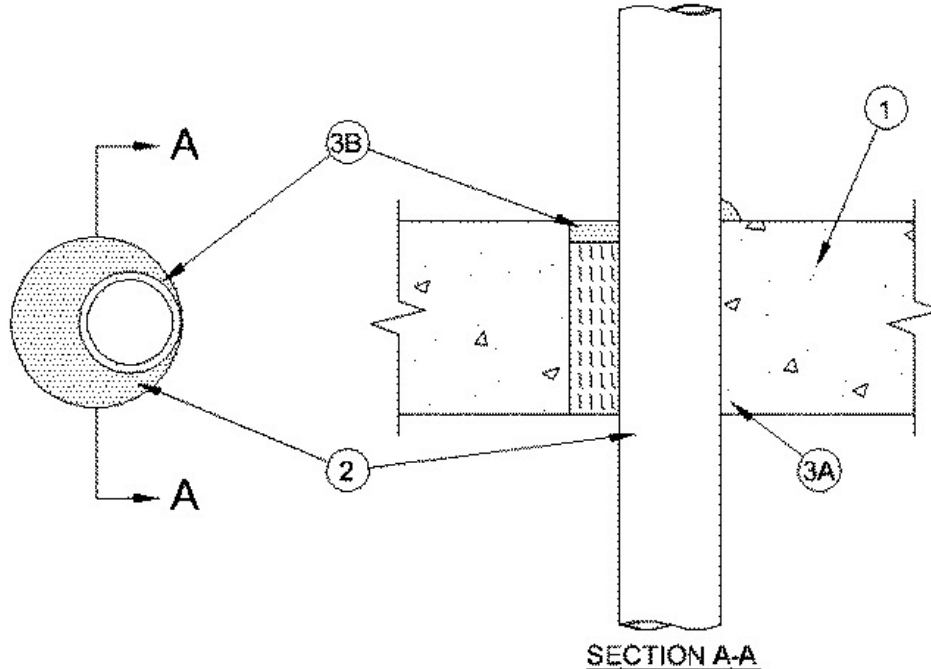


F Rating — 2 Hr  
 T Rating — 2 Hr  
 L Rating At Ambient — Less Than 1 CFM/ft<sup>2</sup>  
 L Rating At 400°F — Less Than 1 CFM/sq ft  
 W Rating — Class 1 (See Item 2 and 3B)



1. **Floor or Wall Assembly** — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1660-2400 kg/m<sup>3</sup>) concrete floor or min 5 in. (127 mm) thick reinforced lightweight or normal weight concrete wall. 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 is 4 in. (102 mm).

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

2. **Through Penetrating Product\*** — One non-metallic pipe, installed either concentrically or eccentrically within firestop system. The annular space between the pipe and periphery of opening shall be min 0 (point contact) to max 1-5/8 in. When W Rating applies, min annular space to be 1/2 in. (13 mm). Pipe to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of non-metallic pipes may be used:

A. **Polyvinyl Chloride (PVC) Pipe** — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 solid core or cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

B. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 2 in. (51 mm) diam (or smaller) SDR 13.5 CPVC pipe for use in closed (process or supply) piping systems.

C. **Acrylonitrile Butadiene Styrene (ABS) Pipe** — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 solid core or cellular core ABS 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. **Packing Material** — Min 4 in. (102 mm) thickness of min 4 pcf mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall to accommodate the required thickness of fill material. In hollow-core floors, packing material to be flush with bottom of floor.

B. **Fill, Void or Cavity Material\* - Caulk** — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall assembly. At point contact location, 1/2 in. (13 mm) diam bead of caulk applied at interface of pipe and periphery of opening on top surface of floor or both surface of wall. For PVC pipe installed with an annular space of 0 (point contact) to 5/8 in., sealant depth may be reduced to 1/4 in. (6 mm) when W Rating does not apply.

**RECTORSEAL** — [Metacaulk MC 150+](#), [Metacaulk 1000](#), [Metacaulk 350i](#) and Flamesafe FS1900.

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W Rating only applies when [Metacaulk MC 150+](#), [Metacaulk 1000](#), 350i and Flamesafe FS1900 are 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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