

System No. C-AJ-8004

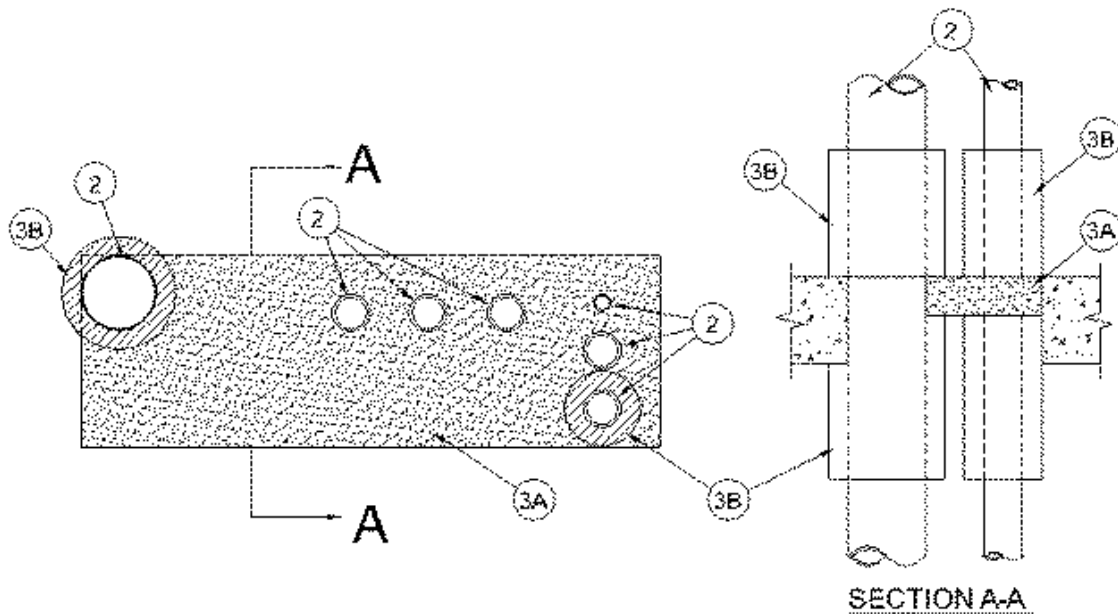
August 2008

F Ratings — 2 and 3 Hr (See Item 2)

FT Ratings — 0, 3/4 and 1 Hr (See Item 3)

FH Rating — 0 Hr

FTH Rating — 0 Hr
(cUL)



1. **Floor or Wall Assembly** — Min 114 mm (4-1/2 in.) thick reinforced lightweight or normal weight (1600-2400 kg/cu meter (100-150 pcf)) structural concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max area of opening is 1935 sq cm (300 sq in.) with max dimension of 762 mm (30 in.).

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

2. **Through Penetrants** — A max of seven pipes, conduits or tubing to be installed within the opening. Of the seven penetrants, only one penetrant shall have a nom diam greater than 51 mm (2 in.). The min space between pipes, conduits or tubing shall be 51 mm (2 in.), except that for metallic pipes greater than nom 51 mm (2 in.) diam and without pipe covering (Item 3B), the min space shall be 76 mm (3 in.). The max space between pipes, conduits or tubing shall be 225 mm (8-7/8 in.). The min space between pipes, conduits or tubing and periphery of opening shall be 51 mm (2 in.) for metallic penetrants, 0 in. (point contact) for metallic pipes with pipe covering (Item 3B) and 38 mm (1-1/2 in.) for plastic pipes. The max space between pipes, conduits or tubing and periphery of opening shall be 143 mm (5-5/8 in.). Pipe, conduit or tubing to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of pipes, conduits or tubing may be used:

- A. **Steel Pipe** — Nom 203 mm (8 in.) diam (or smaller) Schedule 10 (or heavier) steel pipe.
- B. **Iron Pipe** — Nom 203 mm (8 in.) diam (or smaller) cast or ductile iron pipe.
- C. **Conduit** — Nom 102 mm (4 in.) diam (or smaller) steel electrical metallic tubing or rigid steel conduit.
- D. **Copper Tubing** — Nom 102 mm (4 in.) diam (or smaller) Type L (or heavier) copper tubing.
- E. **Copper Pipe** — Nom 102 mm (4 in.) diam (or smaller) Regular (or heavier) copper pipe.
- F. **Polyvinyl Chloride (PVC) Pipe** — Nom 25 mm (1 in.) diam (or smaller) Schedule 40 solid-core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

F Rating is 3 Hr except that when PVC pipe (Item 2F) is used, F Rating is 2 Hr.

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

- A. **Fill, Void or Cavity Material* – Mortar** – Min 51 mm (2 in.) thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall.

TREMCO INC – TREMstop Fire Mortar

- B. **Pipe Covering Materials*** – (Optional) - Nom 51 mm (1 in.) thick unfaced mineral fiber pipe insulation may be installed on one or more of the copper, iron or Schedule 10 steel through penetrants (Items 2A, 2B, 2D and 2E). The insulation is sized to the outside diam of the pipe or tube. Insulation is tightly wrapped around penetrant to extend min 914 mm (36 in.) above floor or min 914 mm (36 in.) beyond both surfaces of wall. Below floor, insulation is tightly wrapped around penetrant to fully cover exposed penetrant from the bottom surface of the mortar (Item 3A) to a min of 305 mm (12 in.) beyond bottom surface of floor.

IIG MINWOOL L L C – High Temperature Pipe Insulation 1200, High Temperature Pipe Insulation BWT and High Temperature Pipe Insulation Thermaloc

- C. **Sheathing Material*** – Used in conjunction with Item 3B. All service jacket material shall be wrapped around the outer circumference of the pipe insulation (Item 3B) with the kraft side exposed. Longitudinal and transverse joints sealed with butt tape.

See **Sheathing Materials** - (BVDV) category in the Building Materials Directory for names of manufacturers. Any sheathing 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.

- D. **Forms - (Not Shown)** – Used as a form to prevent leakage of fill material during installation. Forms to be 64 mm (2-1/2 in.) thick mineral wool batt insulation, cut to fit the contour of the penetrating items and positioned as required to accommodate the required thickness of fill material. Forms may be removed after fill material cured.

- E. **Packing Material - (Not Shown)** – Required in corners of opening where pipe is installed with point contact at both edges of opening. Min 25 mm (1 in.) thickness of min 64 kg/cu meter (4 pcf) mineral wool batt insulation firmly packed into corner of 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 (Item 3F).

- F. **Fill, Void or Cavity Material* - (Not Shown)** – Used in conjunction with Item 3E. Min 25 mm (1 in.) thickness of fill material applied within the annulus at corner of opening, flush with top surface of floor or both surfaces of wall.

TREMCO INC – TREMstop Intumescent Acrylic, TREMstop IA+

T Rating is 0 Hr, except that T Rating is 1 Hr for Through Penetrants 2A, 2B, 2D and 2E only when used with Pipe Covering (Item 3B). T Rating for PVC Pipe (Item 2F) is 3/4 Hr.

*Bearing the UL Classification Mark



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