

System No. C-AJ-8158

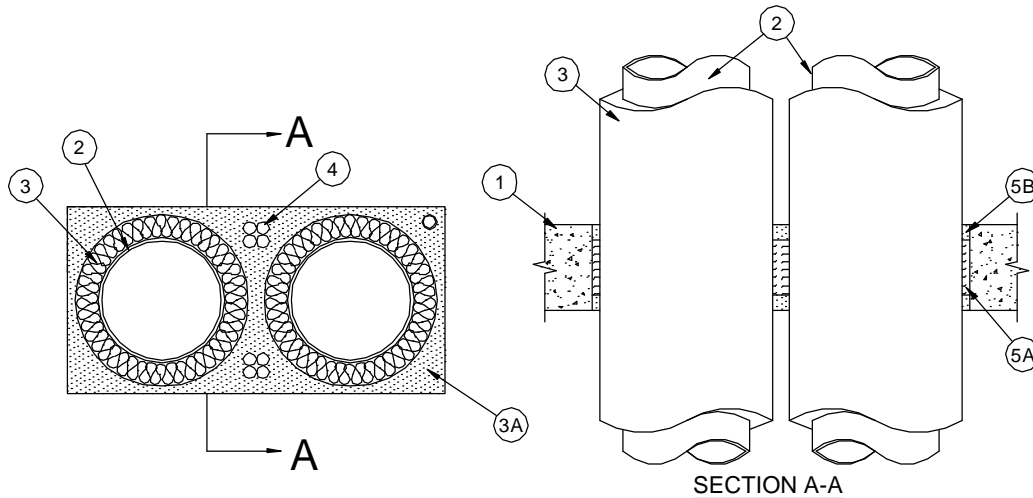
August 2008

F Rating - 3 Hr

T Ratings - 1/4 and 1-3/4 Hr (See Item 3)

L Rating at Ambient - 1.6 CFM/sq ft

(UL/cUL)



1. **Floor or Wall Assembly** - Min 5-1/2 in. (140 mm) thick reinforced lightweight or normal weight (100-150 pcf (1600-2400 kg/cu. meter)) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max size of opening is 288 sq in. (1858 sq cm) with a max dimension of 24 in. (610 mm).

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

2. **Through Penetrants** — Maximum of three metallic pipes or tubes to be installed within the firestop system. The annular space between the metallic pipe and the periphery of the opening shall be min 1/2 in. (13 mm) to max 1 in. (25 mm). The annular space between metallic pipes and between metallic pipes and cable bundles shall be min 1 in. (25 mm) to max 3 in. (76 mm). Pipe or tube to be rigidly supported on both sides of the floor or wall assembly. The following types and sizes of metallic pipes and tubes may be used:
 - A. **Steel Pipe** — Nom 8 in. (203 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - B. **Iron Pipe** - Nom 8 in. (203 mm) diam (or smaller) cast or ductile iron pipe.
 - C. **Copper Tubing** — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
 - D. **Copper Pipe** — Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
3. **Pipe Covering Material*** - Nom 1-1/2 in. (38 mm) thick hollow cylindrical heavy density (3.5 pcf (56 kg/cu meter)) glass fiber units installed on all metallic penetrants (Item 2) exceeding nom 1 in. (25 mm) diam. Pipe covering is jacketed on the outside with an all service jacket. 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 between the insulated pipes and the periphery of the opening shall be min 1/2 in. (13 mm) to max 1-3/8 in. (35 mm). The annular space between insulated pipes shall be min 3 in. (76 mm) to max 3-3/4 in. (95 mm). The annular space between the insulated pipes and uninsulated metallic pipes or cable bundles (Item 4) shall be min 1 in. (25 mm) to max 3 in. (76 mm).

See **Pipe 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.

The T Rating is 1-3/4 hr except that the T Rating is 1/4 hr for uninsulated metallic pipes (Item 2).

4. **Cables** - A maximum of two cable bundles to be installed within the opening. The max diam of tightly bundled cables is 2 in. (51 mm). The annular space between the cable bundle and the periphery of the opening shall be min 1/2 in. (13 mm) to max 3 in. (76 mm). The annular space between the cable bundle and any other through penetrant shall be min 2-1/4 in. (57 mm) to max 3 in. (76 mm). Cable bundle to be rigidly supported on both sides of the floor or wall assembly. The following types and sizes of cables may be used:
 - A. Max 3/C No. 12 AWG (or smaller) MC (BX) copper cable with polyvinyl chloride insulation and jacket materials.

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

- A. **Packing Material*** — Min 3-1/2 in. (89 mm) thickness of min 6 pcf (96 kg/cu meter) ceramic blanket insulation firmly packed into the opening as a permanent form. Packing material to be recessed from both surfaces of floor or wall as required to accommodate the required thickness of fill material.

TREMCO INC — TREMstop FS Blanket

- B. **Fill, Void or Cavity Material*** — Min 1 in. (25 mm) thickness of fill material applied within the annular space, flush with both surfaces of floor or wall. Fill material to be forced into interstices of cable bundles to the max extent possible.

TREMCO INC — TREMstop Intumescent Acrylic, TREMstop IA+

- C. **Form or Wire Mesh** - (Optional, Not Shown) To aid in system installation in floors, rigid sheet material or max 3/16 in. (5 mm) thick cardboard or max 1 in. (25 mm) diamond shaped wire mesh fabricated from min No. 20 AWG galv steel wire may be cut to fit the contour of the opening and fastened to the underside of the floor to retain the fill material in place during curing. Form may be removed after fill material has set.

*Bearing the UL Classification Mark



Reprinted from the Online Certifications Directory with permission from Underwriters Laboratories Inc.
Copyright © 2008 Underwriters Laboratories Inc. ®

Tremco Commercial Sealants & Waterproofing

3735 Green Road, Beachwood, OH 44122 // Phone: 216.292.5000 // 800.321.7906
220 Wicksteed Avenue, Toronto, ON M4H 1G7 // Phone: 416.421.3300 // 800.363.3213
1451 Jacobson Avenue, Ashland OH 44805 // Phone: 419.289.2050 // 800.321.6357