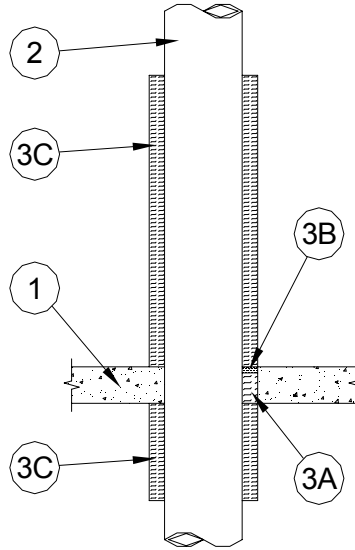


**Through-penetration Firestop Systems**  
**UL System No. C-AJ-1560**  
**F Rating -3 Hr**  
**T Rating - 2 Hr**  
**L Rating at Ambient - Less Than 1 CFM/sq ft**  
**L Rating at 400F - Less Than 1 CFM/sq ft**



1. **Floor or Wall Assembly** - Min. 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf (1600-2400 kg/m<sup>3</sup>)) concrete. Wall may also be constructed of any UL Classified Concrete Blocks\*. Max. dia. of opening is 10 in. (254 mm).

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

2. **Through-Penetrant** - One metallic pipe or tubing installed concentrically or eccentrically within opening. Annular space between penetrant and periphery of opening shall be min of 0 in. (point contact) to max. 1 in. (25 mm). Penetrant to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of penetrants may be used:

- A. **Steel Pipe** - Nom. 8 in. (203 mm) dia. (or smaller) Schedule 10 (or heavier) steel pipe.
- B. **Iron Pipe** - Nom. 8 in. (203 mm) dia. (or smaller) cast or ductile iron pipe.
- C. **Copper Tubing** - Nom 4 in. (102 mm) dia. (or smaller) Type L (or heavier) copper tubing.
- D. **Copper Pipe** - Nom. 4 in. (102 mm) dia. (or smaller) Regular (or heavier) copper pipe.

3. **Firestop System** - The details of the firestop system shall be as follows: to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of penetrants may be used:

- A. **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 from both surfaces of wall to accommodate the required thickness of fill material.
- B. **Fill, Void or Cavity Materials\*** - 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.

**A/D FIRE PROTECTION SYSTEMS INC- A/D FIREBARRIER Intumescent Sealant**

**UL System C-AJ-1560 continued...**

- C. **Pipe Covering Materials\*** - Nom. 1 in. (25 mm) thick unfaced mineral fiber pipe insulation shall be installed on the through penetrant (Item 2). The insulation is sized to the outside dia. of the pipe or tube. Insulation is tightly wrapped around penetrant to extend min. 12 in. (305 mm) below floor and 36 in. (914 mm) above floor or min. 36 in. (914 mm) beyond both surfaces of wall.

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

- D. **Sheathing Material\*** - Used in conjunction with Item 3C. All service jacket material shall be wrapped around the outer circumference of the pipe insulation (Item 3C) 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.

\*Bearing the UL Classification Mark