



### System No. C-AJ-5010

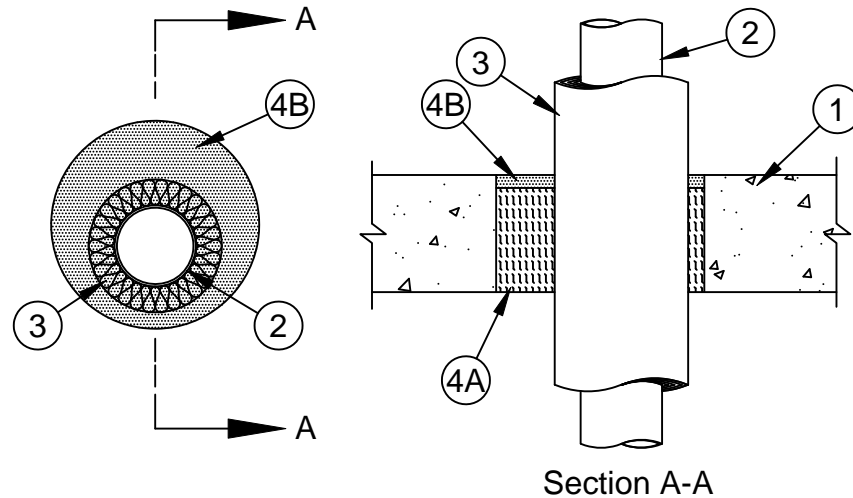
F Ratings - 2 and 3 Hr (See Item 2)

T Ratings - 1 and 3 Hr (See Item 2)

L Rating At Ambient - Less Than 1 CFM/sq ft

L Rating At 400 F - Less Than 1 CFM/sq ft

W Rating - Class 1 (See Items 3A and 4B)



- Floor or Wall Assembly** - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) concrete floor or min 5 in. (127 mm) thick reinforced lightweight or normal weight concrete wall. Wall may also be constructed of any UL Classified **Concrete Blocks\***. Max diam of opening is 8 in. (203 mm).

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

- Through-Penetrant** - One metallic pipe or tubing installed either concentrically or eccentrically within opening. Penetrant to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of penetrants may be used:
  - Steel Pipe** - Nom 2 in. (51 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
  - Iron Pipe** - Nom 2 in. (51 mm) diam (or smaller) service weight (or heavier) cast iron soil pipe or Class 50 (or heavier) ductile iron pressure pipe.
  - Copper Tubing** - Nom 2 in. (51 mm) diam (or smaller) Type M (or heavier) copper tubing.
  - Copper Pipe** - Nom 2 in. (51 mm) diam (or smaller) Regular (or heavier) copper pipe.

**When copper tubing or copper pipe is used, F Rating is 2 hr and T Rating is 1 hr. When steel or iron pipe is used, F and T Ratings are 3 hr.**

- Pipe Covering** - One of the following types of pipe coverings shall be used:
  - Pipe and Equipment Covering - Materials\*** - Nom 1 in. (25 mm) thick hollow cylindrical heavy density (min 3.5 pcf or 56 kg/m<sup>3</sup>) glass fiber units 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 through penetrant and periphery of opening shall be min 5/8 in. (16 mm) to max 3-1/4 in. (83 mm).

See **Pipe and 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.



**Specified Technologies Inc. 210 Evans Way Somerville, NJ 08876**

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C-AJ-5010  
PAGE 1 OF 2

- B. **Pipe Covering Materials\*** - Nom 1 in. (25 mm) thick unfaced mineral fiber pipe insulation sized to the outside diam of pipe or tube. Pipe insulation secured with min 18 AWG steel wire spaced max 12 in. (305 mm) OC. The annular space between the insulated through penetrant and periphery of opening shall be min 5/8 in. (16 mm) to max 3-1/4 in. (83 mm).

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

- C. **Sheathing Material\*** - (Not shown) - Used in conjunction with Item 3B. Foil-scrim-kraft or all service jacket material shall be wrapped around the outer circumference of the pipe insulation (Item 3B) with the kraft side exposed. Longitudinal joints and transverse joints sealed with metal fasteners or 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. **PVC Jacket+** - (Optional, Not Shown) - An additional PVC jacket, supplied in sheet form, shall be tightly wrapped around the all service jacket on the pipe covering with the longitudinal seam continuously sealed using the self-sealing lap tape or adhesive supplied with the jacket. The jacket is to be nom 48 in. (1.22 m) wide by nom 20 or 30 mil (0.5 or 0.8 mm) thick. The jacket shall extend downward into and/or through the opening from a point 36 to 40 in. (0.91 to 1.02 m) above the top surface of the floor assembly. **The PVC jacket must be used for the W Rating to apply. The W Rating applies only with floor assemblies.**

See **Plastics** (QMFZ2) category in the Plastics Recognized Component Directory for names of manufacturers. Any Recognized Component plastic material meeting the above specifications and having a UL 94 Flammability Classification of 94-5VA may be used.

4. **Firestop System** - The firestop system shall consist of the following:

- A. **Packing Material** - Min 4 in. (114 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 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.

**MOMENTIVE PERFORMANCE MATERIALS** - Pensil 100 Caulk for floors and walls.

**SPECIFIED TECHNOLOGIES INC** - Pensil 100 Sealant, Pensil 300 Sealant or SpecSeal Series SIL300 Sealant for floors and walls and Pensil 300 S/L Sealant or SpecSeal Series SIL300SL Sealant for floors only.

**W Rating applies only when Pensil 300 Sealant, SpecSeal Series SIL300, Pensil 300 S/L or SpecSeal Series SIL300SL Sealants are used.**

\*Bearing the UL Classification Mark



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C-AJ-5010  
PAGE 2 OF 2