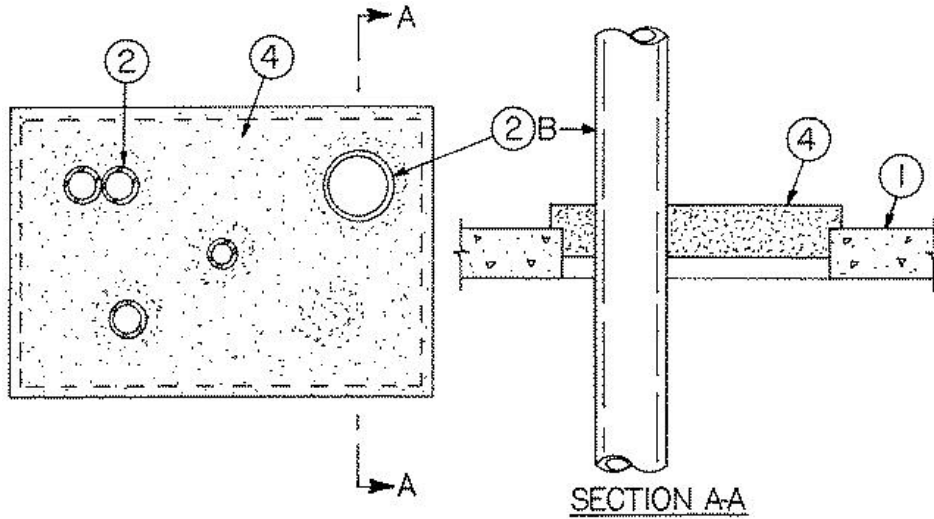


F Rating — 3 Hr
T Rating — 0 and 1/2 Hr (See Item 4)



1. **Floor or Wall Assembly** — Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max area of opening 864 sq in. with max dimension of 36 in.
See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. **Through Penetrants** — The space between pipes, conduits or tubing shall be min 1 in. The space between pipes, conduits or tubing and periphery of opening shall be min 1/4 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 4 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Glass Pipe*** — Nom 6 in. diam (or smaller) glass pipe. Pipe couplings to be located min 12 in. from floor or wall surfaces.
SCHOTT SCIENTIFIC GLASS

C. **Conduit** — Nom 4 in. diam (or smaller) electrical metallic tubing or steel conduit.

D. **Copper Tubing** — Nom 3 in. diam (or smaller) Type L (or heavier) copper tubing.

3. **Forms (Not Shown)** — Forms to be a rigid sheet material, cut to fit the contour of the penetrating item and fastened to the underside of the floor or both sides of wall. Forms to be removed after fill material has cured. As an option in floor assemblies, the forming material may be installed within the through opening such that its top surface is recessed a min of 2 in. from the top surface of the floor. When the top surface of the forming material is less than 4 in. from the top surface of the floor, a square or rectangular "curb" of mortar fill material shall be cast on the top surface of the floor to attain the required overall mortar fill material thickness. The "curb" shall lap a min of 1 in. on the concrete floor on all sides of the through opening. Forming material to be removed after fill material has cured.

4. **Fill, Void or Cavity Materials — Mortar** — Min 4 in. thickness of fill material applied within annulus. Material to be mixed with water in accordance with the mixing instructions on the bag and pumped or trowled into the through opening. The hourly T Rating of the firestop system is dependent upon the type and size of the through-penetrating item, as shown in the following table:

Pipe Type	Max Pipe Diam In.	T Rating Hr
Steel Pipe or Conduit		2 1/2
Steel Pipe, Conduit or EMT	4	0
Copper Tubing	3	0

RECTORSEAL — [MetaCaulk Fire Rated Mortar](#)

*,+ Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.