



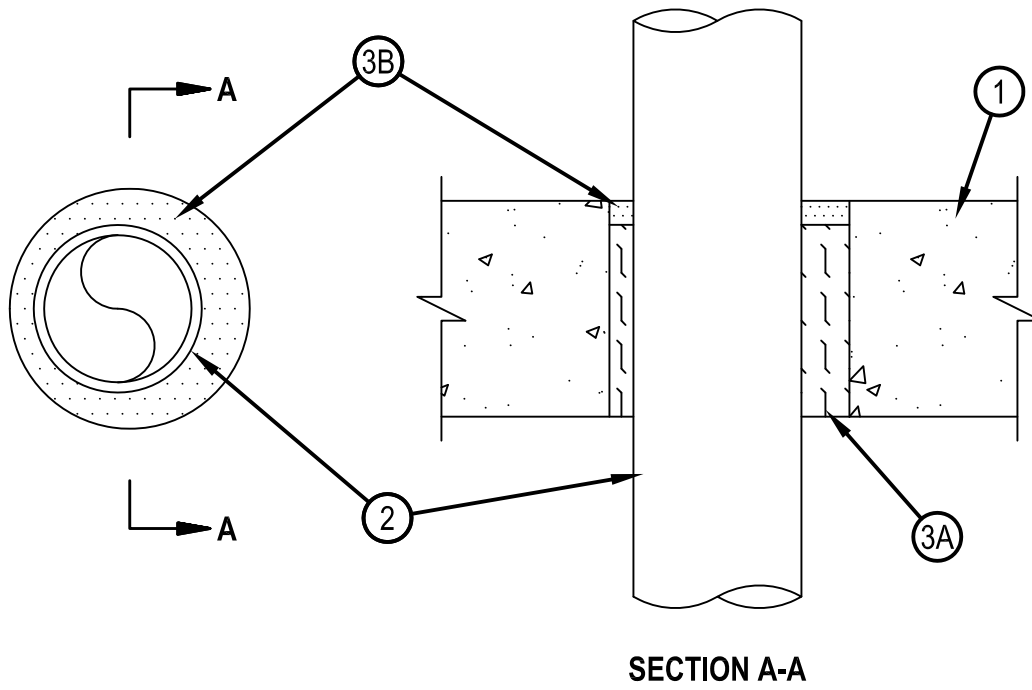
Classified by  
Underwriters Laboratories, Inc.  
to UL 1479

## System No. C-AJ-2335

F Rating -- 3 Hr

T Rating -- 2-3/4 and 3 Hr (See Item 3)

CAJ 2335



**SECTION A-A**

1. 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 or 5 in. thick reinforced lightweight or normal weight concrete wall. Wall may also be constructed of any UL Classified Concrete Blocks\*. Max diameter of opening is 5 in. (127 mm).

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

2. Through Penetrants — One nonmetallic pipe or conduit to be installed concentrically or eccentrically within the firestop system. Annular space between pipe or conduit and edge of opening to be min 1/4 in. (6 mm) and max 1-1/4 in. (32 mm). Pipe or conduit to be rigidly supported on both sides of floor-ceiling assembly. The following types and sizes of nonmetallic pipes or conduit may be used:

A. Polyvinyl Chloride (PVC) Pipe — Nom 3 in. (76 mm) diam (or smaller) Schedule 40 solid or cellular core PVC for use in closed (process or supply) piping systems.

B. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 3 in. (76 mm) diam (or smaller) SDR13.5 CPVC for use in closed (process or supply) piping systems.

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

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 both surfaces of wall to accommodate the required thickness of fill material.

B. Fill Void or Cavity Materials\* - Sealant — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor or both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

The T Rating is 3 hr when the FS-ONE sealant is used and 2-3/4 hr when the FS\_ONE MAX sealant is used.

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



**Hilti Firestop Systems**

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