

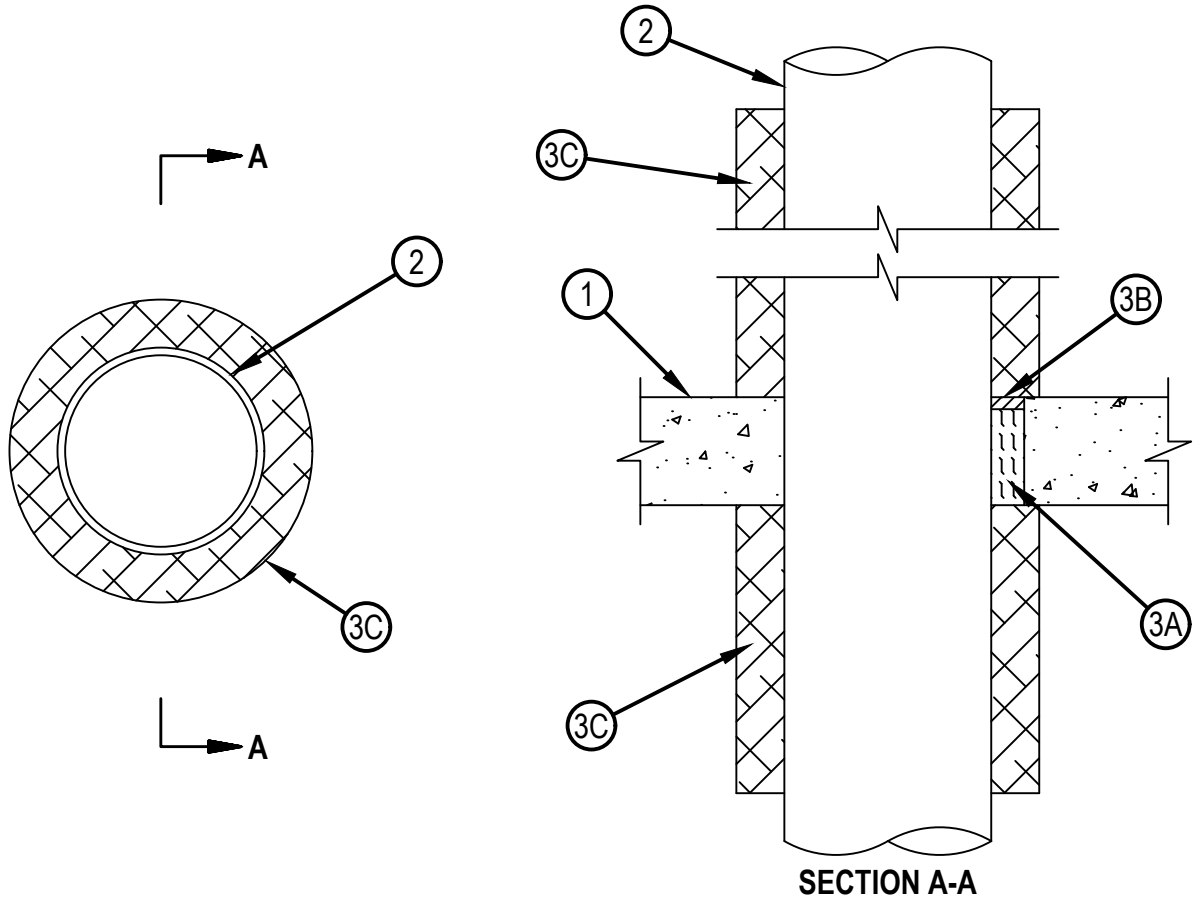


Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. C-AJ-1597

CAJ 1597

| ANSI/UL1479 (ASTM E814) | CAN/ULC S115 |
|---|---|
| F Rating — 3Hr | F Rating — 3 Hr |
| T Ratings — 2 and 2-3/4 Hr (See Item 3C) | FT Ratings — 2 and 2-3/4 Hr (See Item 3C) |
| L Rating At Ambient — Less Than 1 CFM/sq ft | FH Rating — 3 Hr |
| L Rating At 400 F — Less Than 1 CFM/sq ft | FTH Ratings — 2 and 2-3/4 Hr (See Item 3C) |
| W Rating — Class 1 (See Item 3) | L Rating At Ambient — Less Than 1 CFM/sq ft |
| | L Rating At 400 F — 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 or 1600-2400 kg/m³) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Floor may also be constructed of any UL Classified Precast Concrete Units*. Max diam of opening 10 in. (254 mm). Max diam of opening in floor constructed of hollow-core precast concrete units is 7 in. (178 mm).

See Concrete Blocks (CAZT) and Precast Concrete Units (CFTV) categories in Fire Resistance Directory for names of manufacturers.
2. Through-Penetrant — One metallic pipe, conduit or tubing installed concentrically or eccentrically within opening. Annular space between penetrant and periphery of opening shall be min 0 in. (0 mm, point contact) to max 2 in. (51 mm). 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 8 in. (203 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - Iron Pipe — Nom 8 in. (203 mm) diam (or smaller) cast or ductile iron pipe.
 - Copper Tubing — Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tubing.
 - Copper Pipe — Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe.
 - Conduit — Nom 6 in. (152 mm) diam (or smaller) steel conduit or nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT).



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3. Firestop System — The details of the firestop system shall be as follows:

A. Packing Material — Min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into opening as a permanent form. In floors constructed of precast concrete units, packing material to be flush with bottom of floor. 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* — Sealant — Min 1/2 in. (13 mm) thickness of sealant or putty applied within the annulus, flush with top surface of floor or with both surfaces of wall. At point contact, apply min 1/4 in. (6 mm) bead at penetrant/concrete interface on top surface of floor or both surfaces of wall. W Rating applies only when CFS-S SIL GG, CFS-S SIL SL (floors only), CP601S sealant or FS-ONE MAX Intumescent Sealant is used.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Intumescent Sealant, FS-ONE MAX Intumescent Sealant, CFS-S SIL GG Sealant, CFS-S SIL SL Sealant (floors only)

C. Duct Wrap Materials* — Nom 1-1/2 in. or 2 in. (38 or 51 mm) thick blanket, faced on one side or two with a foil facing. The pipes shall be wrapped with one layer of duct wrap. Duct wrap is to extend a minimum of 36 in. (914 mm) from top surface of floor or both sides of wall assembly and a min of 12 in. (305 mm) from the bottom of the floor. The ends are to be tightly butted together and taped on top side of floor and both sides of wall. The exposed edges of the faced blankets are taped with 4 in. (102 mm) wide pressure-sensitive aluminum foil tape. On the bottom surface of the floor ends are to be tightly butted together and wire bound. The T, FT and FTH Ratings are 2 hr when nom 1-1/2 in. (38 mm) thick blanket is used. The T, FT and FTH Ratings are 2 3/4 hr when nom 2 in. (51 mm) thick blanket is used.

THERMAL CERAMICS INC — FireMaster FastWrap XL

UNIFRAX I L L C — FyreWrap Duct Insulation, FyreWrap Duct 1.5 Insulation

* 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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