

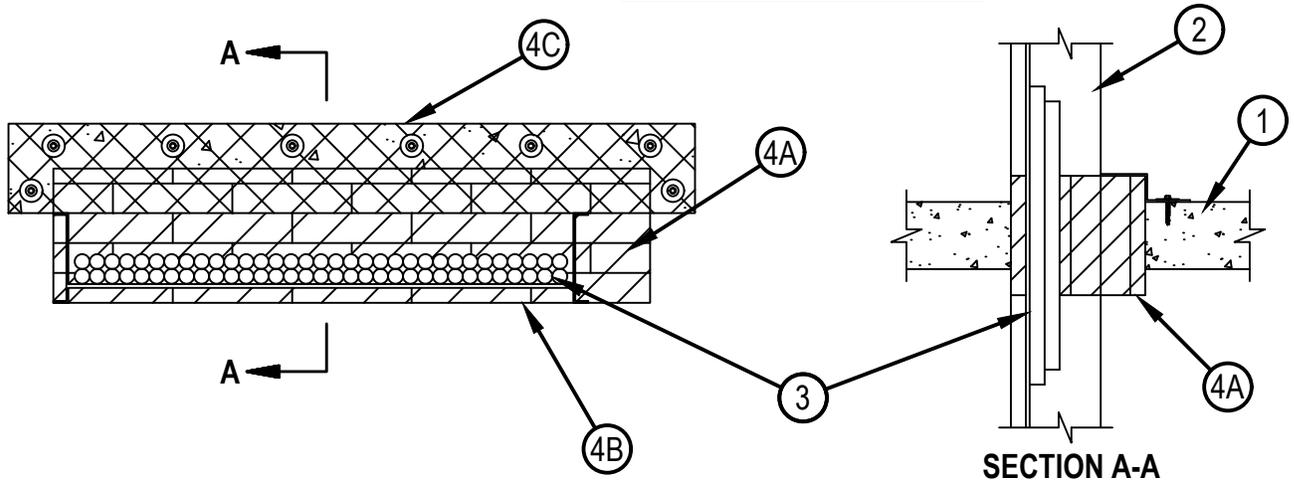


Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. C-AJ-4083

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 1/4 Hr	FT Rating — 1/4 Hr
	FH Rating — 2 Hr
	FTH Rating — 1/4 Hr

CAJ 4083



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*. Max area of opening is 360 in² (2322 cm²) with max dimension of 40 in. (1016 mm).
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Cable Tray — Max 36 in. (914 mm) wide by max 6 in. (152 mm) deep open-ladder cable tray with channel-shaped side rails formed of 0.070 in. (1.8 mm) thick aluminum or min 0.050 in. (1.3 mm) thick steel and with 1-1/2 in. (38 mm) wide by 1 in. (25 mm) channel shaped rungs spaced 9 in. (229 mm) OC. The annular space between the cable tray and the periphery of the opening shall be min 0 in. (point contact) to max 2-1/4 in. (57 mm). Cable tray to be rigidly supported on both sides of floor or wall assembly.



Hilti Firestop Systems

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January 25, 2016

3. Cables — Aggregate cross-sectional area of cables in cable tray to be max 40 percent of the cross-sectional area of the cable tray based on a max 4 in. (102 mm) cable loading depth within the cable tray. Any combination of the following types and sizes of copper conductor or fiber optic cables may be used:
- A. Max 7/C No. 12 AWG with polyvinyl chloride (PVC) insulation and PVC jacket.
 - B. Max 300 pair No. 24 AWG cable with PVC insulation and jacket.
 - C. Max 1/C, 750 kcmil with thermo plastic insulation and polyvinyl chloride (PVC) jacket.
 - D. Max 3/C No. 12 AWG (or smaller) MC (BX) copper cable with polyvinyl chloride insulation and jacket materials.
 - E. Fiber optic cable with polyvinyl chloride (PVC) or polyethylene (PE) jacket and insulation having a max diam of 1/2 in. (13 mm).
4. Firestop System — The firestop system shall consist of the following:
- A. Fill, Void or Cavity Material* — Fire blocks installed with long dimension passed through and centered within the thickness of the floor or wall opening. Blocks to be firmly packed to completely fill the entire area and thickness of opening. Either one or a combination of the block types specified below may be used.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS 657 Fire Block or CFS-BL Firestop Block
 - B. Fill, Void or Cavity Material* — Fill material to be forced into interstices of cables, between cables and cable tray, and around the periphery of the cables at the cables/fire block interface to the max extent possible to fill all voids. This fill material is to be applied from the top surface of the floor assembly or both surfaces of wall assembly.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP618 Firestop Putty Stick, CP 620 Fire Foam, CP 660 Firestop Foam, FS-One Sealant or FS-ONE MAX Intumescent Sealant.
 - C. Wire Mesh — Nom 2 in. (51 mm) sq. wire fencing shall be applied over the annular space between the cable tray and the long dimension of the opening to keep the fire blocks in place. The wire fencing is fabricated from min No. 16 SWG (0.060 in. or 1.5 mm) galv steel wire. The wire is cut in a rectangular shape to fit over the annular space with a min 3 in. (76 mm) lap beyond the periphery of the opening. Wire fencing secured to top surface of floor and both surfaces of wall by means of 1/4 in. (6 mm) diam by 1 in. (25 mm) long concrete anchors and 1/4 in. (6 mm) by 1-1/2 in. (38 mm) diam fender washers spaced max 8 in. (203 mm) OC. Wire mesh not required for walls equal to or greater than 7-5/8 in. (194 mm) in thickness.

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