

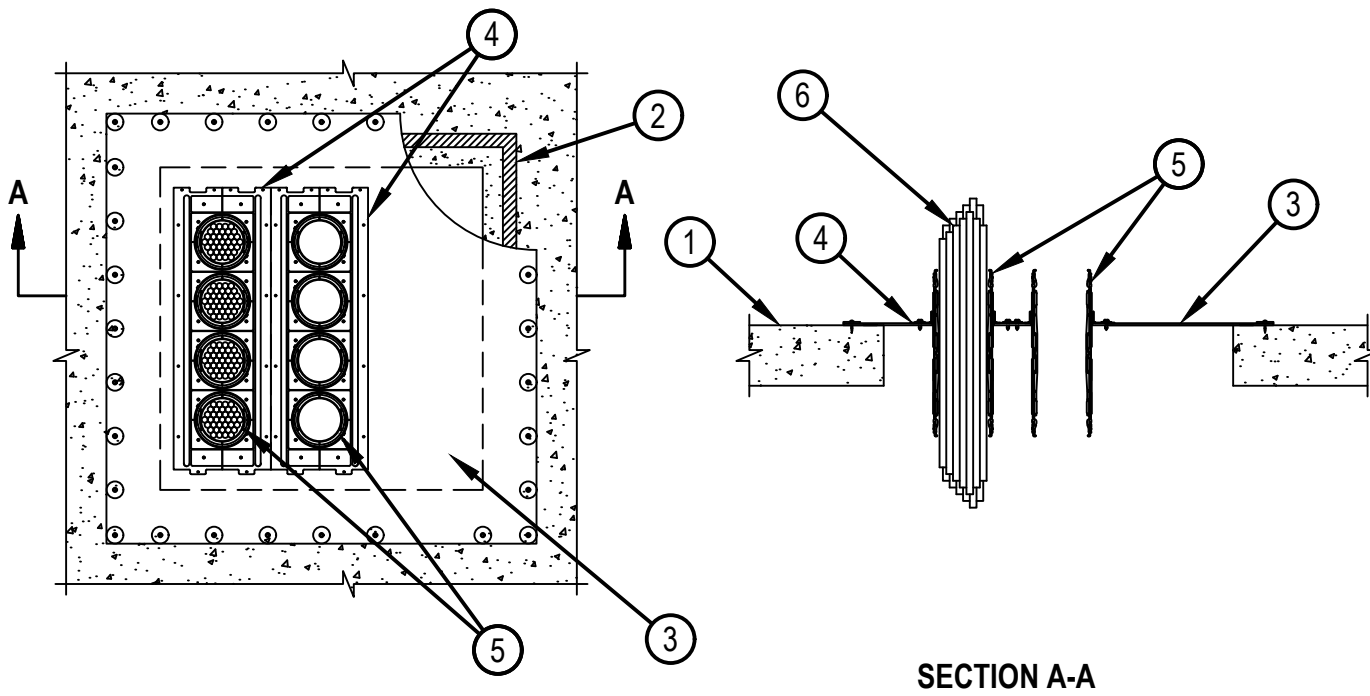


Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. C-AJ-3345

CAJ 3345

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating - 2 Hr	F Rating - 2 Hr
T Rating - 0 Hr	FT Rating - 0 Hr
	FH Rating - 2 Hr
	FTH Rating - 0 Hr



SECTION A-A

1. Floor or Wall Assembly — Min 3-1/2 in. (89 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 900 sq in. (5806 cm²) with max dimension 30 in. (762 mm). See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
 - 1A. Floor Assembly — (Not Shown) — As an alternate to Item 1, fire-rated protected or unprotected concrete and steel floor assembly may be used. Floor assembly to be constructed of the materials and in the manner described in the individual D700 or D900 Series Floor-Ceiling Design in the UL Fire Resistance Directory and shall include the following construction features:
 - A. Concrete — Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete.
 - B. Steel Floor and Form Units — Composite or non-composite max 3 in. (76 mm) deep fluted galv units as specified in the individual Floor-Ceiling design. Max area of opening 900 sq in. (5806 cm²) with max dimension 30 in. (762 mm).



Hilti Firestop Systems

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2. Fill, Void or Cavity Materials* — Putty or Sealant — One layer of 1 by 1/8 in. (25 by 3 mm) thick putty strips or 1/2 in. (13 mm) diam bead of sealant positioned under composite sheet around entire perimeter of through opening.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 619T Firestop Putty Roll, FS-ONE MAX Intumescent Firestop Sealant
3. Fill, Void or Cavity Materials* — Composite Sheet — Rigid aluminum foil-faced intumescent sheet with steel backer. Sheets cut to lap a min of 3 in. (76 mm) onto floor or wall surfaces. Sheet installed on top surface of floor or both surfaces of wall. Sheet to be installed with the steel backer exposed (aluminum foil facing against floor or wall surface) and secured to floor or wall surface with min 3/16 in. (4.8 mm) diam by 1-1/4 in. (32 mm) long steel anchor screws in conjunction with min 1-1/4 in. (32 mm) diam steel fender washers or 1-1/16 in. (27 mm) long Hilti X-GN 27 MX nails in conjunction with min 1-1/4 in. (32 mm) diam steel fender washers. Fasteners to be installed at each corner with max spacing between fasteners not to exceed 4 in. (102 mm). In floors and walls 4-1/2 in. (114 mm) thick or greater, the required overlap onto floor or wall surfaces may be reduced from 3 in. (76 mm) to 2 in. (51 mm) when concrete screw anchors are used. Max opening size in composite sheet cut for the installation of the firestop device (Item 4) is 20 in. (508 mm) by 4-1/2 in. (114 mm) for each device.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — Hilti CFS-COS Firestop Composite Sheet
4. Firestop Device* — A max of two devices may be installed. The device consists of a steel plate sandwich construction with four circular opening ports which are each nom 4 in. (102 mm) diam. The firestop device is intended to be mounted to the top surface of the composite sheet for floors or each surface of the composite sheets on both sides of the wall. The annular space between the devices and the periphery of the opening and between the devices is min 0 in. Each device shall be secured to the composite sheet with min No. 10 by min 3/4 in. (19 mm) self-drilling/tapping steel screws through all pre-punched holes around periphery of steel device plates; min four screws are used at each long dimension and three screws at each end.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-SL GP 24" Firestop Gangplate
5. Firestop Device — Firestop device consists of a corrugated steel tube with an inner plastic housing, intumescent material rings and twisted inner fabric smoke seal. Device tube slid into gang plate port opening and centered within floor or wall such that ends of device tube project an approximate equal distance from the gang plate on each side of wall. The two integral screws within the flange of the gang plate port at each side of floor or wall are tightened to firmly bear against the device sleeve to retain it in position. The inner fabric seal shall be twisted to completely close off any unused opening within the device.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 653 BA 4" Speed Sleeve, CP 653 4" BA ILS and CFS-SL GA L ILS Speed Sleeve
6. Cables — Within the loading area for each firestop device (Item 5), a tightly bundled cable may be installed. The cables may be used for a 0 to 100 percent visual fill. Cables to be rigidly supported on both sides of floor or wall assembly. Any combination of the following types of cables may be used:
- A. Max 100 pair No. 24 AWG (or smaller) copper conductor telecommunication cable with polyvinyl chloride (PVC) jacketing and insulation.
 - B. Max 7/C No. 12 AWG copper conductor control cable with PVC or XLPE jacket and insulation.
 - C. Max 4/0 AWG Type RHH ground cable.
 - D. Max 4 pr No. 22 AWG Cat 5 or Cat 6 computer cables.
 - E. Max RG 6/U coaxial cable with fluorinated ethylene insulation and jacketing.
 - F. Fiber optic cable with polyvinyl chloride (PVC) or polyethylene (PE) jacket and insulation having a max diam of 1/2 in. (13 mm).
 - G. Max 3/C No 12 AWG MC Cable.

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

