

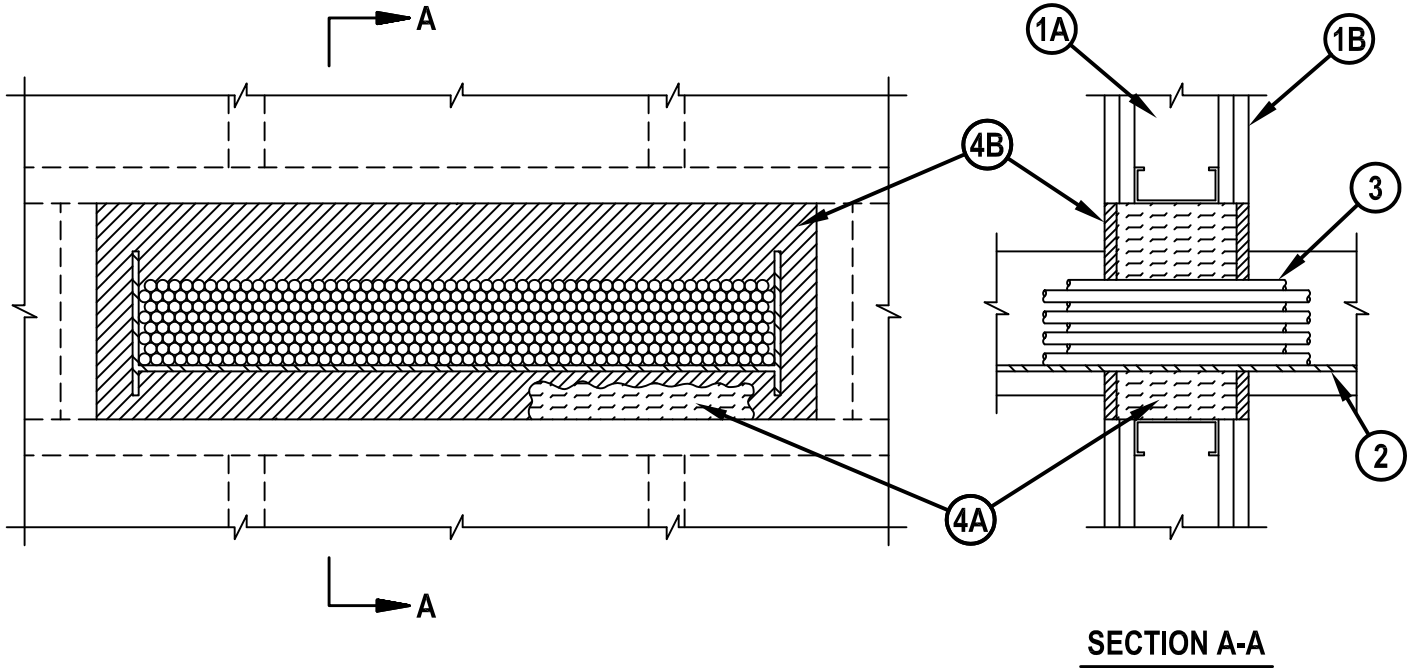


Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. WL-4060

WL 4060

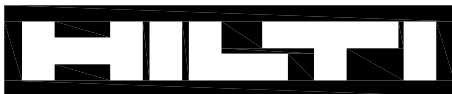
ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 1 and 2 Hr (See Item 1)	F Rating — 1 and 2 Hr (See Item 1)
T Rating — 1/2 Hr	FT Rating — 1/2 Hr
	FH Rating — 1 and 2 Hr (See Item 1)
	FTH Rating — 1/2 Hr



1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

- A. Studs — Wall framing may consist of either wood studs or channel shaped steel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced max 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC. Additional framing members shall be installed in stud cavity to form a rectangular box around the penetrants.
- B. Gypsum Board* — 5/8 in. (16 mm) thick with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300, U400 or V400 Wall and Partition Design. If the cable tray is installed in a wood stud/gypsum board assembly, the max area of opening is 130 in.2 (842 cm2) with max dimension of 14-1/2 in. (368 mm). If the cable tray is installed in a steel stud/gypsum board assembly, max area of opening is 270 in.2. (1742 cm2) with max dimension of 30 in. (762 mm) wide.

The hourly F, FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.



Hilti Firestop Systems

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January 23, 2015

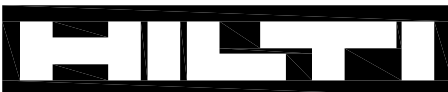
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2. Cable Tray — For wall assemblies consisting of steel studs, max 24 in. (610 mm) wide by max 6 in. (152 mm) deep open ladder cable tray with channel-shaped side rails formed of min 0.060 in. (1.5 mm) thick galv steel or aluminum with nom 1 in. (25 mm) diam rungs spaced 9 in. (229 mm) OC. For wall assemblies consisting of wood studs, max 12 in. (305 mm) wide by max 6 in. (152 mm) deep open ladder cable tray with channel-shaped side rails formed of min 0.060 in. (1.5 mm) thick galv steel or aluminum with nom 1 in. (25 mm) diam rungs spaced 9 in. (229 mm) OC. The annular space between the cable tray and the periphery of the opening will be min 0 in. (0 mm, point contact) to max 3 in. (76 mm). Cable tray to be rigidly supported on both sides of wall assembly.
3. Cables — Aggregate cross-sectional area of cable tray to be max 40 percent of the cross-sectional area of the cable tray based on a max 5 in. (127 mm) loading depth. Any combination of the following types and sizes of cables may be used:
 - A. Max 300 pair No. 24 AWG telephone cable with polyvinyl chloride (PVC) insulation and jacket.
 - B. Max 750 kcmil single conductor copper power cable with PVC jacket material.
 - C. Multiple fiber optical communication cable with PVC jacket and having a max OD of 1/2 in. (12 mm).
 - D. Through Penetrating Product* — Max 3/C No. 12 AWG (or smaller) Metal-Clad Cable+ currently Classified under the Through Penetrating Product category.
See Through Penetrating Product (XHLY) category in the Fire Resistance Directory for names of manufacturers.
4. Firestop System — The firestop system shall consist of the following:
 - A. Packing Material — In 2 hr fire rated wall assemblies, min 5 in. (127 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into opening as a permanent form. In 1 hr fire rated wall assemblies, min 3-3/4 in. (95 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material recessed from both surfaces of the wall to accommodate the required thickness of fill material.
 - B. Fill, Void or Cavity Material* — Sealant — Min 1/2 in. (13 mm) thickness of fill material applied within annulus, flush with both surfaces of wall. A min 1/2 in. (13 mm) diam bead of fill material shall be applied at the gypsum board/through penetrant interface at point contact location on both surfaces of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

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

+ Bearing the UL Listing Mark



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