

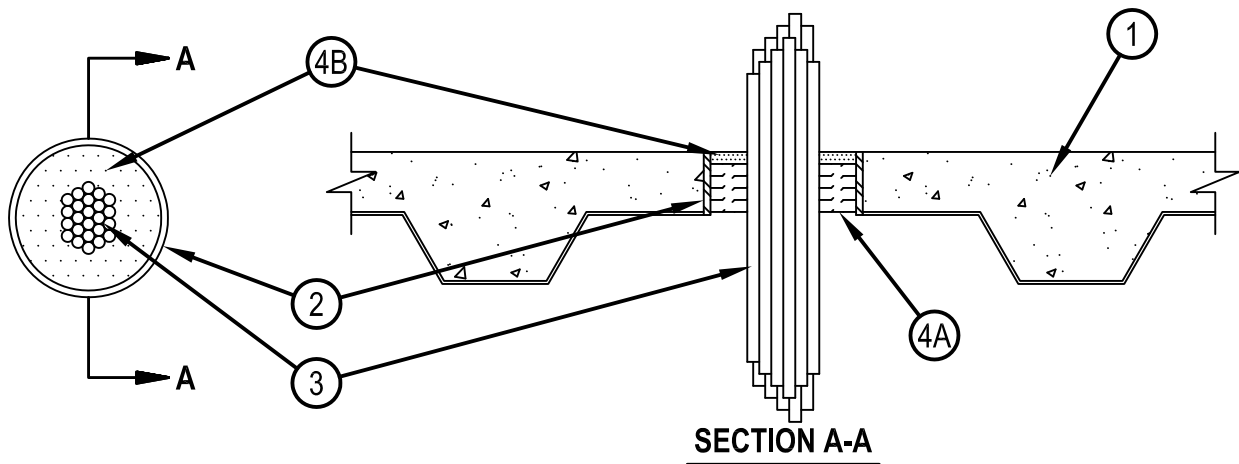


Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

System No. F-A-3012

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 3 Hr	F Rating — 3 Hr
T Ratings - 0, 1/2 and 3/4 Hr (See Item 3)	FT Ratings - 0, 1/2 and 3/4 Hr (See Item 3)
	FH Rating — 3 Hr
	FTH Ratings - 0, 1/2 and 3/4 Hr (See Item 3)

FA 3012



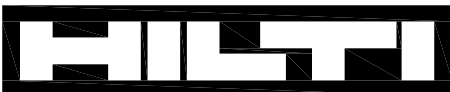
Hilti Firestop Systems

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System No. F-A-3012

1. Floor Assembly — The fire rated unprotected concrete and steel floor assembly shall be constructed of the materials and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below.
 - 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 galv steel fluted units as specified in the individual Floor-Ceiling Design. Max diam of opening is 6 in. (152 mm).
2. Steel Sleeve — (Optional)- Nom 6 in. (152 mm) diam (or smaller) Schedule 40 (or heavier) steel sleeve cast or grouted into floor assembly, flush with floor surfaces.
3. Cables — Aggregate cross-sectional area of bundled cables in opening to be min 25 percent to max 45 percent of the cross-sectional area of the opening. Cables to be rigidly supported on both sides of the floor or wall assembly. Any combination of the following types and sizes of cables may be used.
 - A. Max 300 pair No. 24 AWG telecommunication cable with PVC insulation and jacket. When telecommunication cable is used, T, FT and FTH Rating is 0 hr
 - B. Max 500 kcmil single copper connector power cable with thermoplastic insulation and polyvinyl chloride (PVC) jacket. When single copper conductor power cable is used, T, FT and FTH Rating is 0 hr
 - C. Max 350 kcmil single connector power cable with either aluminum or copper conductors with cross-linked polyethylene (XLPE) insulation and polyvinyl chloride (PVC) jacket. When single aluminum conductor power cable is used, T, FT and FTH Rating is 0 hr. When single copper conductor power cable is used, T Rating is 1/2 hr.
 - D. Max three copper connector No. 6 AWG cable with polyvinyl chloride (PVC) insulation and jacket material. When multi-connector power cable is used, T, FT and FTH Rating is 0 hr.
 - E. Max 7/C copper connector No. 12 AWG multiconductor power and control cable with polyvinyl chloride (PVC) or cross-linked polyethylene (XLPE) insulation and PVC jacket. When multi-connector power cable is used, T, FT and FTH Rating is 3/4 hr.
 - F. Multiple fiber optical communication cable jacketed with PVC and having a max outside diameter of 1/2 in. When fiber optic cable is used, T, FT and FTH Rating is 3/4 hr.
 - G. Max 3/C No. 12 AWG with bare aluminum ground, polyvinyl chloride (PVC) insulated steel Metal-Clad cable+. When MC cable is used, T, FT and FTH Rating is 0 hr.
4. Firestop System — The firestop system shall consist of the following:
 - A. Packing Materials — Min 2 in (51 mm) thickness of min 4 pcf (64 kg/m³) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor 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.
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.



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