XHEZ.C-AJ-3285 - Through-penetration Firestop Systems

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

XHEZ - Through-penetration Firestop Systems
XHEZ7 - Through-penetration Firestop Systems Certified for Canada

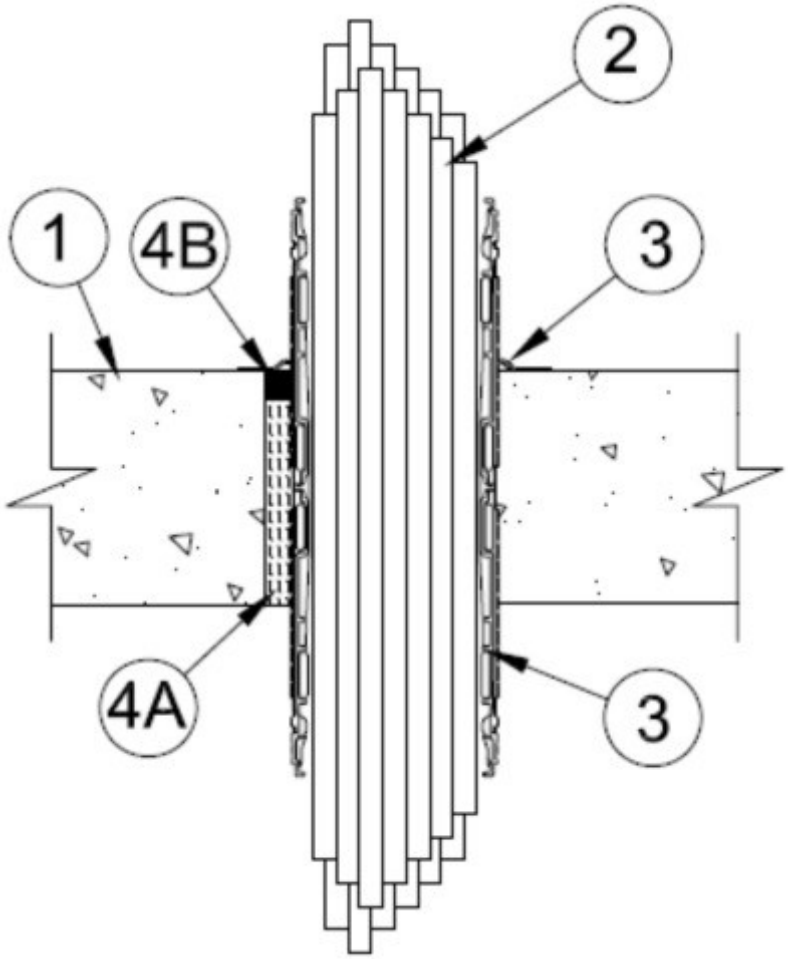
See General Information for Through-penetration Firestop Systems

See General Information for Through-penetration Firestop Systems Certified for Canada

System No. C-AJ-3285

July 02, 2018

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 3 Hr	F Rating — 3 Hr
T Ratings — 0, 1, 1-1/2 and 3 Hr (See Item 2)	FT Ratings — 0, 1, 1-1/2 and 3 Hr (See Item 2)
L Rating At Ambient — Less Than 1 CFM (See Items 2 and 4)	FH Rating — 3 Hr
L Rating At 400 F — Less Than 1 CFM (See Items 2 and 4)	FTH Ratings — 0, 1, 1-1/2 and 3 Hr (See Item 2)
	L Rating At Ambient — Less Than 1 CFM (See Items 2 and 4)
	L Rating At 400 F — Less Than 1 CFM (See Items 2 and 4)



1. **Floor or Wall Assembly —** Reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) concrete. Min 4-1/2 in. (114 mm) thick floors and min 5 in. (127 mm) thick walls. Wall may also be constructed of any UL Classified **Concrete Blocks***. Floor may also be constructed of any min 6 in. (152 mm) thick UL Classified hollow-core **Precast Concrete Units***. Opening in floor or wall to be max 3 in. (76 mm) diam for 2 in. (51 mm) device and max 5 in. (127 mm) diam for 4 in. (102 mm) device.

See **Concrete Blocks** (CAZT) and **Precast Concrete Units** (CFTV) categories in the Fire Resistance Directory for names of manufacturers.

2. **Cables —** Within the loading area for each firestop device, the cables may represent a 0 to 100 percent visual fill. Cables to be tightly bundled within the device and 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 four pair No. 22 AWG 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 20/C No. 22 AWG shielded printer cable with PVC jacket.

H. **Through-Penetrating Product* —** Two copper conductors No. 18 AWG (or smaller) Power or Non Power Limited Fire Alarm Cable with or without a jacket under a metal armor.
AFC CABLE SYSTEMS INC

I. Max. 1/4 in. (6 mm) diam S-Video Cable consisting of two max No. 24 AWG 75 ohm coax or twisted pair cable with PE insulation and PVC jacket.

J. **Through Penetrating Product* —** Any Cables, **Metal-Clad Cable+** or **Armored Cable+** currently Classified under the Through Penetrating Products category.

See **Through Penetrating Product** (XHLY) category in the Fire Resistance Directory for names of manufacturers.

K. Max 3/C No 12 AWG MC Cable.

The hourly T, FT and FTH Ratings for blank opening (no cables) are 3 hr. The hourly T, FT and FTH Ratings for opening with cables are 1-1/2 hr except that, when cable type 2A, 2B, 2C, 2E or 2H is used, the T, FT and FTH Ratings are 1 hr, and when cable types 2J or 2K are used the T, FT, and FTH Ratings are 0 hr. See Table below for L Ratings.

Max Cable Fill	Cable Type	L Rating, CFM/Sq Ft		L Rating, CFM	
		Ambient	400°F	Ambient	400°F
0%	—	1	2	Less than 1	Less than 1
100%	Any cables (Item 2) in any combination	7	7	Less than 1	Less than 1

3. **Firestop Device* —** Firestop device consists of a corrugated steel tube with an inner plastic housing, intumescent material rings, tightly twisted inner fabric smoke seal, flanges and gasket material (not shown). Firestop device to be installed in accordance with the accompanying installation instructions. Device slid into floor or wall such that ends project an equal distance from the approximate centerline of the assembly. As an option, in floors, steel sleeve of device may be installed flush with bottom of floor. The annular space between the device and the periphery of the opening shall be min 0 in. (point contact). Device provided with flange(s) that are spun clockwise onto device threads, over gasket material butting tightly to top side of floor or both sides of floor or wall. In floors, when one device flange is used, device flange to be secured to floor with min two 1-1/4 in. (32 mm) long masonry screws or anchors. As an alternate to gasket material, sealant (Item 4B) may be used.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 653 and CP 653 BA 2" Speed Sleeve, CP 653 and CP 653 BA 4" Speed Sleeve, CP 653 4" BA ILS and CFS-SL GA L ILS Speed Sleeve

4. **Firestop System —** The firestop system shall consist of the following:

A. **Packing Material —** Min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m^3) mineral wool batt insulation firmly packed into annular space between firestop device and opening as a permanent form. Packing material to be installed flush with bottom of floor and 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 Material* — Sealant —** As an alternate to gasket material (see Item 3), min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall. **For L Ratings when sealant is used, an additional 1/4 in. (6 mm) bead of fill material is required at the device/floor or device/wall interface on top side of floor or both sides of wall assembly prior to installing flange(s)**.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP601S Sealant, CP 606 Sealant, CFS-S SIL GG, CFS-S SIL SL (floors only) 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.

Last Updated on 2018-07-02

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL Solutions' Follow - Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL Solutions' Follow - Up Service. Always look for the Mark on the product.