Project:

Company

Phone:

Email:

Date:

HILTI FIRESTOP

Hilti, Inc.
7250 Dallas Parkway, Suite 1000
US-Plano, TX 75024
U.S.A.
October 4, 2023

To Whom it May Concern

Hilti CP 680 Firestop Cast in Device are being discontinued and replaced by Hilti CFS-CID U Firestop Cast in Device. We have created new UL Systems for our new portfolio. The chart below details each new CFS-CID U UL system and what CP 680 System it is replacing. Both devices are tested in accordance with UL 1479, ASTM E 814, ASTM G21. Additional product data including all UL systems are available on our website at www.hilti.com. Ensure all requirements of the UL System listing and manufactures installation instructions were met. Contact us with any questions.

CFS-CID U System Name	CP 680 System Comparison	Penetrant(s)	Countries
F-A-0048	F-A-0006	Blank	US/Canada
F-A-0049	F-A-0014	Blank	US/Canada
F-A-1222	F-A-1017	Max 6" Steel, Cast or Ductile Iron, Steel Conduit, Copper or Max 4" EMT	US/Canada
F-A-1223	F-A-1022	Max. qt 5: 1" Steel Conduit, EMT, Steel Pipe, Cast or Ductile Iron Pipe or Copper	US/Canada
F-A-1224	F-A-1023	Max Qty 2: One Max 3" and One Max 2": Steel Conduit, EMT, Steel Pipe, Cast or Ductile Iron Pipe or Copper	US/Canada
F-A-1225	F-A-1066	Max Qty 4: Max 1-1/2" Steel, Steel Conduit, EMT or Max 1" Copper	US/Canada
F-A-1226	F-A-1106	Max 6" Steel, Cast or Ductile Iron, Steel Conduit or Max 4" EMT	US/Canada
F-A-1227	F-A-1207	Max 4" Steel, Cast or Ductile Iron, Steel Conduit or EMT	US/Canada
F-A-2416	F-A-2012 (CA)	Max 4" PVC, CPVC, Aquarise CPVC, ABS, FRPP, RNC or System 15 PVC	Canada Only
F-A-2417	F-A-2013 (CA)	Nom 2" PEX	Canada Only
F-A-2411	F-A-2054	Max 6" PVC, CPVC, RNC, or Max 4" PEX	US Only
F-A-2412	F-A-2066	Max 6" FRPP or Max 4" ABS	US Only
F-A-2405	F-A-2072	3 or 4" PVC or ABS	US Only
F-A-2406	F-A-2103	Max Qty 3: Max 2" PVC, CPVC or Max 1" ENT	US Only
F-A-2407	F-A-2142	Max 4" Bundle of PEX	US Only
F-A-2408	F-A-2205	Max 2" PVC, CPVC, or PEX with 1", 1-1/2" or 2" Glass Fiber	US Only
F-A-2409	F-A-2270	Max 4" PP-R Aquatherm Greenpipe SDR 7.4	US Only

F-A-2410	F-A-2093	Max 2" PVC	US Only
F-A-2413	F-A-2092	Max 6" PVC or CPVC	US Only
F-A-2414	F-A-2145	Max 2” SDR11 CPVC or Max 3” SDR13.5 CPVC	US Only
F-A-2418	F-A-2240 (CA)	Max 4" XFR or PVC-HR	Canada Only
F-A-3090	F-A-3001	Cable Bundle	Canada Only
F-A-3091	F-A-3007	Cable Bundle	US/Canada
F-A-3092	F-A-3034	500 KCMIL Copper Conductor Control Cable	US/Canada
F-A-3093	F-A-3060	Cable Bundles	US/Canada
F-A-5083	F-A-5016	Max 4" Steel, Cast or Ductile Iron, Copper with Nom 3/4" or 1" AB/PVC	US/Canada
F-A-5084	F-A-5018	Max 4" Steel, Cast or Ductile Iron, or Copper with Nom 1, 1-1/2 or 2" Glass Fiber	US/Canada
F-A-5085	F-A-5062	Max 4" Cast or Ductile Iron, Max 2" Steel or Copper with Nom 1-1/2" Glass Fiber	US/Canada
F-A-7026	F-A-7018	Max 6" Sheet Metal Duct	US/Canada
F-A-8068	F-A-8016	Max Qty 4: Two with Max 1", Two with Max 1/2" Max 1" Steel, Cast or Ductile Iron, EMT, Steel Conduit or Copper Max Qty 1: Max 1-1/4 PVC or CPVC Max Qty 2: Cables 3/4" with AB/PVC on Metallic Pipe Over 1/2"	US/Canada
F-A-8069	F-A-8023	Max 2" Steel, Cast or Ductile Iron, Steel Conduit or EMT Max Qty 2: Max 2" ENT Max 2" Cable Bundle	US/Canada
F-B-1041	F-B-1009	Max 4" Steel, or Cast or Ductile Iron	US/Canada
F-B-1042	F-B-1010	Max 6" Steel, Cast or Ductile Iron, Steel Conduit or EMT	US/Canada
F-B-1043	F-B-1033	Nom 3" or 4" Steel, Cast or Ductile Iron	US/Canada
F-B-2079	F-B-2013	Max 4" PVC	US Only
F-B-2080	F-B-2041	Max Qty 2: Max 2" Aquatherm Fusiotherm or PEX	US/Canada
F-B-2081	F-B-2033	Max 4" PVC or CPVC Max 4" Metallic Above Slab	US/Canada
F-B-2082	F-B-2034	Max 1-1/2" Polypropylene (Variety of Brands)	US/Canada
F-B-2083	F-B-2040	Max 1-1/2" Polypropylene (Variety of Brands)	US/Canada

Best regards,

James Barton

James Barton
Firestop Product Manager - Firestop
Hilti North America

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

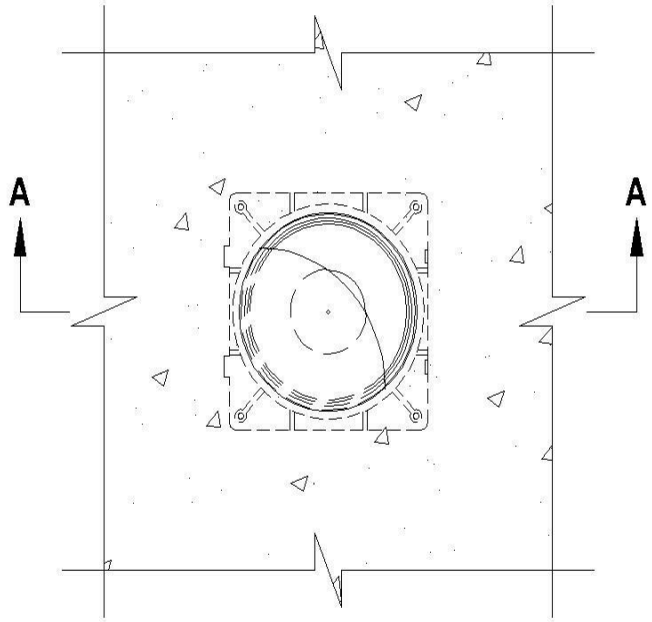
See General Information for Through-penetration Firestop Systems

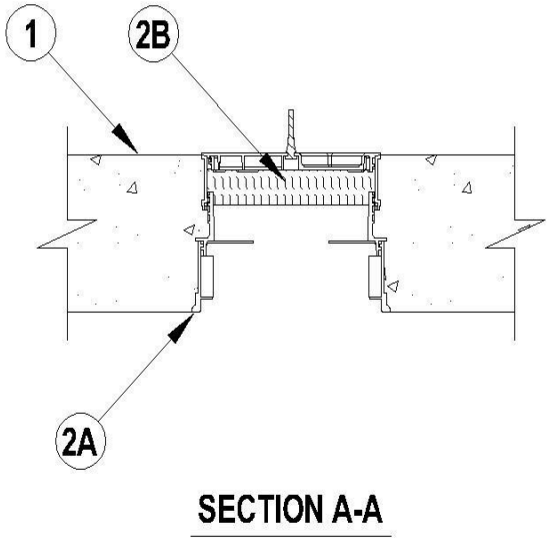
See General Information for Through-penetration Firestop Systems Certified for Canada

System No. **F-A-0049**

March 11, 2024

ANSI/UL1479 (ASTM E814)	**CAN/ULC S115**
F Rating — 3 Hr	F Rating — 3 Hr
T Rating — 3 Hr	FT Rating — 3 Hr
	FH Rating — 3 Hr
	FTH Rating — 3 Hr





1. **Floor Assembly —** Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) concrete.

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

    A. **Firestop Device* —** Cast in place firestop device with optional accessories including sleeve extensions permanently embedded during concrete placement or grouted in concrete assembly in accordance with accompanying installation instructions with a max 2 in. (51 mm) projection above the top surface of the floor. Firestop Device lid to remain threaded into top of device.

    HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-CID U 2", CFS-CID U 2" CA, CFS-CID U 3", CFS-CID U 4"

    B. **Packing Material —** Prior to threading firestop device cap Min 1 in. (25 mm) thickness of min 4 pcf mineral wool batt insulation firmly packed within the top of device (Item 2A), such that it sits flush with bottom of device cap.

* **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 2024-03-11

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- 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

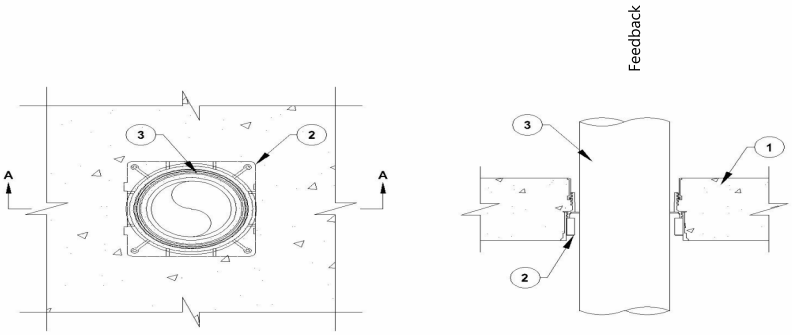
See General Information for Through-penetration Firestop Systems

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

System No. F-A-1222

September 21, 2023

ANSI/UL1479 (ASTM E814)	**CAN/ULC S115**
F Rating — 3 Hr	F Rating — 3 Hr
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating At Ambient — Less Than 1 CFM/sq ft (See Item 3)	FH Rating — 3 Hr
L Rating At 400 F — Less Than 1 CFM/sq ft (See Item 3)	FTH Rating — 0 Hr
W Rating — Class 1 (See Item 4)	L Rating At Ambient — Less Than 1 CFM/sq ft (See Item 3)
	L Rating At 400 F — Less Than 1 CFM/sq ft (See Item 3)



1. **Floor Assembly —** Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) concrete.

2. **Firestop Device* —** Cast in place firestop device, with optional accessories including sleeve extensions, permanently embedded during concrete placement or grouted in concrete floor assembly in accordance with accompanying installation instructions. The devices may extend a max of 2 in. (51 mm) above the top surface of the concrete.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-CID U 2", CFS-CID U 2" CA, CFS-CID U 3", CFS-CID U 4", CFS-CID U 6"

3. **Through Penetrants —** One metallic pipe, conduit or tubing to be installed within the firestop device. Pipe, conduit or tubing to be rigidly supported on both sides of floor assembly. The following types of pipe, conduit or tubing may be used:

A. **Steel Pipe —** Nom 6 in. (152 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Iron Pipe —** Nom 6 in. (152 mm) diam (or smaller) cast or ductile iron pipe.

C. **Conduit —** Nom 6 in. (152 mm) diam (or smaller) rigid steel conduit.

D. **Conduit —** Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing.

E. **Copper Tubing —** Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.

F. **Copper Pipe —** Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.

The firestop device and metallic penetrant shall be sized as follows:

Nom Pipe Diameter +	**Firestop Device**
1-1/4 to 2 in. (32 to 51 mm)	CFS-CID U 2", CFS-CID U 2" CA
2- to 3 in. (51 to 76 mm)	CFS-CID U 3"
3 to 4 in. (76 to 102 mm)	CFS-CID U 4"
6 in. (152 mm)	CFS-CID U 6"

+ When metallic pipes of diameters smaller than those shown above are installed within the device, CP618 Firestop Putty Stick (Item 4) or mineral wool insulation (item 4a) shall be installed within the device.

Refer to W & L Rating table below

4. **Fill, Void or Cavity Material* - Putty (Optional, Not Shown) —** Min 1 in. (25 mm) thickness of fill material applied within annulus flush with top surface of device.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 618 Firestop Putty Stick

4A. **Packing Material (Optional. Not Shown) —** As an alternate to Item 4, min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m^3) mineral wool insulation firmly packed to the fullest extent possible within annulus flush with top surface of device. When optional sealant (item 5) is used top surface of packing material to be recessed min ¼ in (6mm) from top surface of floor.

5. **Fill, Void or Cavity Material* — Sealant —** (Optional, Not Shown) — Min 1/4 in. (6 mm) thickness of sealant applied within the annulus, flush with the top surface of device. A Min 1/2 in. (13 mm) thickness of sealant applied within the annulus, flush with the top surface of device to attain W-Rating.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-S SIL GG or CFS-S SIL SL Sealant

The W-Rating and L Ratings apply according to the Table Below

Device size	**Penetrant with (IPS) Diam in. (mm)**	**Penetrant with (CTS) Diam in. (mm)**	**W RATING**	**L Rating**
CFS-CID U 2", CFS-CID U 2" CA	1-1/4 to 2 (32 to 51)	1-1/2 to 2 (38 to 51)	YES	YES
CFS-CID U 2", CFS-CID U 2" CA	≤2 (51)	≤2 (51)	YES, with Items 4a & 5 Above	YES, with Items 4a & 5 Above
CFS-CID U 3"	2 to 3 (51 to 76)	2-1/2 to 3 (64 to 76)	YES	YES
CFS-CID U 3"	≤3 (75)	≤3 (75)2 (51)	YES, with Items 4a & 5 Above	YES, with Items 4a & 5 Above
CFS-CID U 4"	≤4(102)	≤4 (102)	YES, with Items 4a & 5 Above	YES, with Items 4a & 5 Above
CFS-CID U 6"	≤6 (152)	≤6 (152)	YES, with Items 4a & 5 Above	YES, with Items 4a & 5 Above

6. **Pipe Tee Fitting System —** (Optional, Not Shown) — For use with Iron Pipe (Item 3B) only, One nom 6 in. (152 mm) diam (or smaller) PVC TESTRITE TEE Fitting (matched to penetrant diameter). The PVC TESTRITE TEE Fitting is secured to metallic penetrant (Item 3B) with compression type pipe coupling elastomeric gasket with stainless steel jacket and stainless steel band clamps for use in vented (drain, waste or vent) iron pipe systems. Installed (Item 3B) penetrant shall extend a minimum of 6 in. (152 mm) above the surface of the floor and minimum 12 in. (302 mm) below the bottom surface of the floor above assembly.

*** 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 2023-09-19

Design/System/Construction/Assembly Usage Disclaimer

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- 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 materia and alternate methods of construction.
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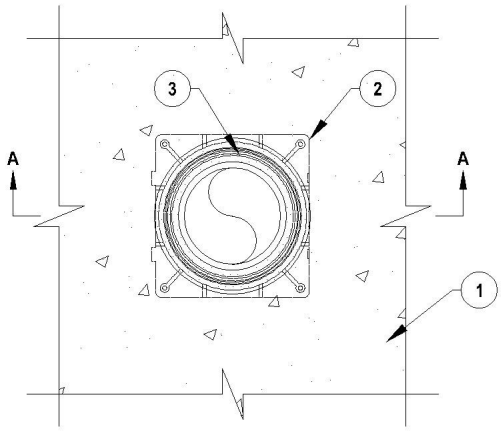
XHEZ - Through-penetration Firestop Systems

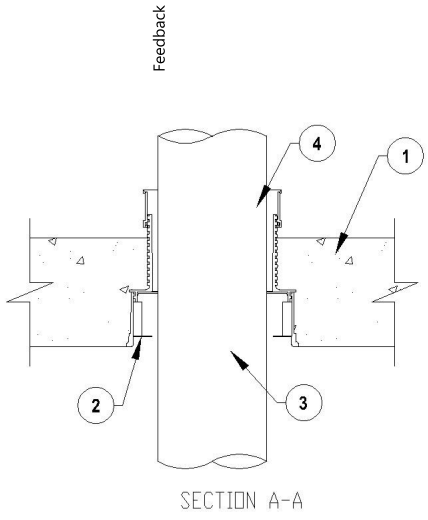
See General Information for Through-penetration Firestop Systems

System No. F-A-2411

September 26, 2023

ANSI/UL1479 (ASTM E814)
F Rating — 3 Hr
T Ratings —0 and 3 Hr (See Item 3, and Table 1)
L Rating (Without Movement) At Ambient — Less Than 1 CFM/sq ft(See Table 2)
L Ratings (Without Movement) At 400 °F — Less Than 1 CFM/sq ft(See Table 2)
W Rating (Without Movement) — Class 1 (See Table 2)
M Rating (Movement) – See Table 3





. **Floor A bly —** Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) concrete.

2. **Firestop Device* —** Cast in place firestop device permanently embedded during concrete placement or grouted in concrete assembly in acc rdance with accompanying installation instructions. The devices may exten max 2 in. (51 mm) above the top surface of the concrete.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-CID U 2", CFS-CID U 2" CA, CFS-CID U 3", CFS-CID U 4", CFS-CID U 6"

3. **Through Penetrants —** One nonmetallic pipe or conduit to be installed within the firestop system. Pipe or conduit to be rigidly supported on both sides of floor assembly. **For W Rating with Water Barrier Module, pipe shall be installed from bottom of device.** The following types and sizes of nonmetallic pipes or conduits may be used:

A. **Polyvinyl Chloride (PVC) Pipe —** Nom 6 in. (152 mm) diam (or smaller) Schedule 40 solid or cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

B. **Chlorinated Polyvinyl Chloride (CPVC) Pipe —** Pipe-Nom 6 in. (152 mm) diam (or smaller) SDR11 or SDR13.5 CPVC pipe for use in closed (process or supply) piping systems.

C. **Rigid Nonmetallic Conduit+ —** Nom 6 in. (152 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with the National Electrical Code (NFPA No. 70).

D. **Cross Linked Polyethylene (PEX) Tubing —** Nom 4 in. (102 mm) diam (or smaller) SDR 9 PEX tubing for use in closed (process or supply) piping systems.

The firestop devices and nonmetallic penetrants shall be sized as follows in Table 1 below:

Table 1

Nom Pipe Diameter ++	Firestop Device	T Rating-Hr +
1-1/4 in.* to 2 in. (32 to 52 mm)	CFS-CID U 2" CFS-CID U 2" CA	3
2 in.* to 3 in. (51 to 76 mm)	CFS-CID U 3"	3+
3 in. * to 4 in. (76 to 102 mm)	CFS-CID U 4"*	3
6 in. * (152 mm)	CFS-CID U 6"	0

+T Rating is 0-HR for firestop systems with M-Rating (Movement)

5. **Packing Material – (Optional, Not Shown)** – Min 2 in (51 mm) depth of min 4 pcf (64 kg/m^3) mineral wool batt insulation tightly-packed into annular space with its top surface flush with the top surface of the device When Optional Sealant (item 5 is used, top surface of packing material to be recessed min ¼ in (6 mm) from top surface of device.

6. **Fill, Void, or Cavity Material* - Sealant** – **(Optional, Not Shown)** – Min ¼ in (6 mm) thickness of sealant applied within the annulus flush with the top surface of device. A min ½ in. (13 mm) thickness of sealant appl within the annulus, flush with the top surface of device to attain W-rating where required as shown in Table 2.

Table 2

Device size	Penetrant with (IPS) Diam in. (mm)*	Penetrant with (CTS) Diam in. (mm)*	W RATING	L Rating
CFS-CID U 2", CFS-CID U 2" CA	1-1/4 to 2 (32 to 51)	1-1/2 to 2 (38 to 51)	YES	YES
CFS-CID U 2", CFS-CID U 2" CA	N/A	1-1/4 (32)	YES, with Items 4 & 5 Above	YES, with Items 4 & 5 Abo
CFS-CID U 3"	2 to 3 (51 to 76)	2-1/2 to 3 (64 to 76)	YES	YES
CFS-CID U 3"	N/A	2 (51)	YES, with Items 4 & 5 Above	YES, with Items 4 & 5 Abo
CFS-CID U 4"	3 to 4 (76 to 102)	3-1/2 to 4 (89 to 102)	No	Yes
CFS-CID U 4"	3 to 4 (76 to 102)	3 to 4 (76 to 102)	YES, with Items 4 & 5 Above	YES, with Items 4 & 5 Abo
CFS-CID U 6"	6 (152)	6 (152)	No	YES

*IPS is Iron pipe diameter standard and CST is copper tube diameter standard

The M Rating for the firestop system is dependent on the variables as noted in Table 3.

Table 3

Movement Direction	Penetrant Item	Nominal Penetrant Diameter	Device Size	Movement	Sealant Depth	L Rating	W Rating
Y	3A	2 in.	2 in.	100%**	N/A	N/A	N/A
Z	3A	2 in.	2 in.	3.21 in.	N/A	N/A	N/A

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+Bearing the UL Listing Mark

Last Updated on 2023-0

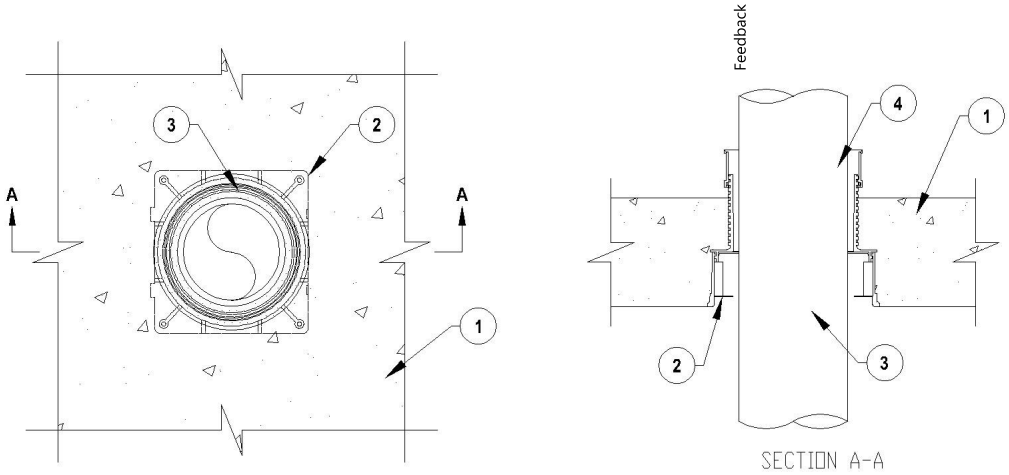
XHEZ - Through-penetration Firestop Systems

See General Information for Through-penetration Firestop Systems

System No. F-A-2412

September 26, 2023

ANSI/UL1479 (ASTM E814)
F Rating — 3 Hr
T Rating — 0 Hr
L Rating At Ambient — Less Than 1 CFM/sq ft (See Item 3)
L Rating At 400 F — Less Than 1 CFM/sq ft (See Item 3)
W Rating — Class 1 (See Item 4)



1. **Floor Assembly —** Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) concrete.

2. **Firestop Device* —** Cast in place firestop device permanently embedded during concrete placement or grouted in concrete assembly in accordance with accompanying installation instructions with a max 2 in. (51 mm) projection above the top surface of the concrete.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-CID U 2", CFS-CID U 2" CA, CFS-CID U 3", CFS-CID U 4", CFS-CID U 6"

3. **Through Penetrants —** One nonmetallic pipe or conduit to be installed within the firestop system. Pipe or conduit to be rigidly supported on both sides of floor-ceiling assembly. The following types and sizes of nonmetallic pipes or conduits may be used:

A. **Acrylonitrile Butadiene Styrene (ABS) Pipe —** Nom 4 in. (102 mm) diam (or smaller) Schedule 40 cellular or solid core pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

B. **Fire Retardant Polypropylene (FRPP) Pipe —** Nom 6 in. (152 mm) diam (or smaller) Schedule 40 FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

The L and W Ratings of the firestop system are dependent upon type and nom diam of the penetrant and the firestop device size as shown below:

Penetrant	Nom Pipe Diameter	Device Size	W-Rating	L-Rating
3A	1-1/4 to 2 in. (32 to 51 mm)	CFS-CID U 2", CFS-CID U 2" CA	Yes	Yes
3B	1-1/2 to 2 in. (32 to 51 mm)	CFS-CID U 2", CFS-CID U 2" CA	Yes	Yes
3A	2 to 3 in. (51 to 76 mm)	CFS-CID U 3"	Yes	Yes
3B	3 in. (76 mm)	CFS-CID U 3"	Yes	Yes
3A and 3B	3 to 4 in. (76 to 102 mm)	CFS-CID U 4"	No	No
3B	6 in (152 mm)	CFS-CID U 6"	No	No

* 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 2023-09-26

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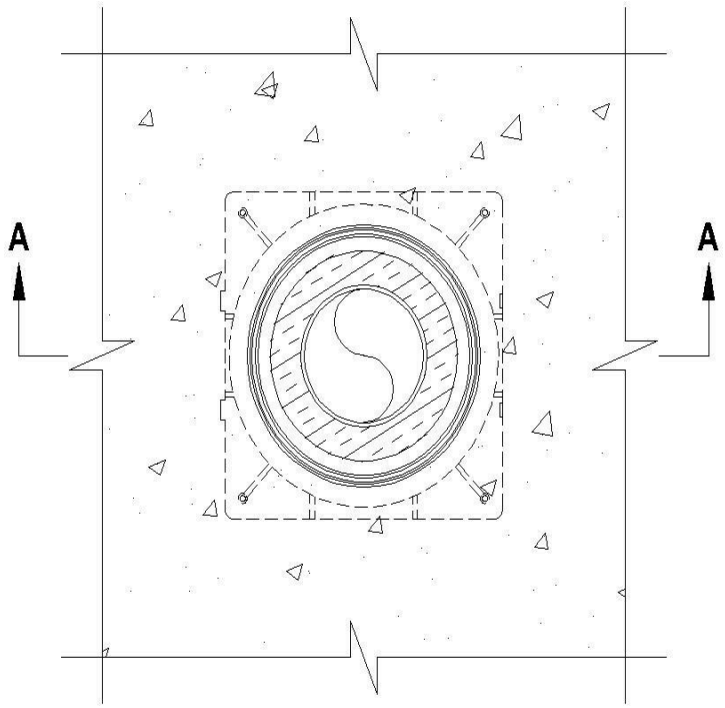
XHEZ - Through-penetration Firestop Systems

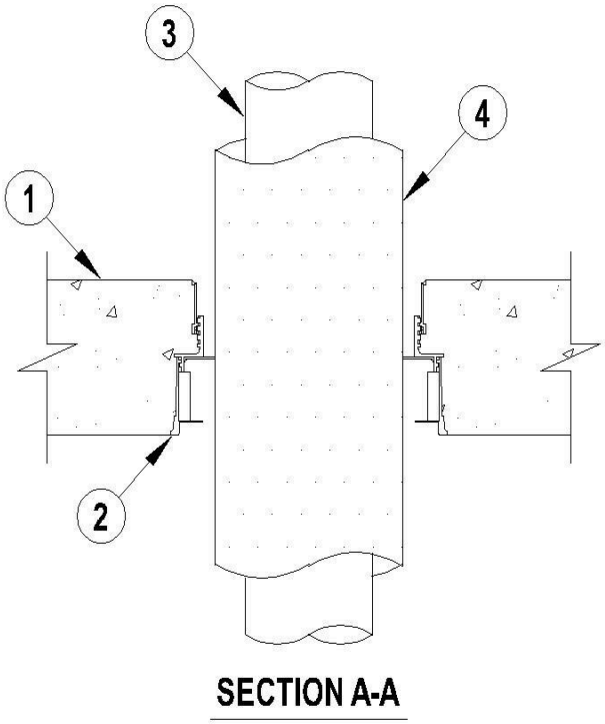
See General Information for Through-penetration Firestop Systems

System No. F-A-2408

March 12, 2024

ANSI/UL1479 (ASTM E814)
F Rating — 2 Hr
T Rating — 2 Hr





1. **Floor Assembly —** Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) concrete floor

2. **Firestop Device* —** Cast in place firestop device with optional accessories including sleeve extension permanently embedded during concrete placement or grouted in concrete assembly in accordance with accompanying installation instructions. The device may extend a max 2 in. (51 mm) above the top surface of the concrete. Device size is dependent on diam of penetrant and pipe covering as specified in Table and in Item 4 below.

Total diameter of penetrant plus insulation *.	**Firestop Devices**
1-1/4 to 2 (32 to 51)	CFS-CID U 2″, CFS-CID U 2″ CA
2 to 3 (51 to 76)	CFS-CID U 3″
3 to 4 (76 to 102)	CFS-CID U 4″
5 to 6 (127 to 152)	CFS-CID U 6″

*** Nom pipe diam in. (mm) with 2 times insulation thickness in (mm) (Item 4 below) will determine which device size to use.**

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-CID, U 2″, CFS-CID U 2″ CA, CFS-CID U 3″, CFS-CID U 4″, CFS-CID U 6″

3. **Through Penetrants —** One nonmetallic pipe to be centered within the firestop system. Pipe to be rigidly supported on both sides of floor assembly. The following types and sizes of nonmetallic pipes may be used:

A. **Polyvinyl Chloride (PVC) Pipe —** Nom 2 in. (51 mm) diam (or smaller) Schedule 40 solid or cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

B. **Chlorinated Polyvinyl Chloride (CPVC) Pipe —** Nom 2 in. (51 mm) diam (or smaller) SDR 13.5 CPVC pipe for use in closed (process or supply) piping systems.

C. **Polypropylene Random (PP-R) Pipe —** Nom 2 in. (63 mm OD) diam (or smaller) SDR 7.4 Aquatherm Green pipe for use in closed (process or supply) piping systems.

D. **Cross Linked Polyethylene (PEX) Tubing —** Nom 2 in. (102 mm) diam (or smaller) SDR 9 Uponor AquaPEX or Wirsbo hePEX PEX tubing for use in closed (process or supply) piping systems.

4. **Pipe and Equipment Covering Materials* —** Nom 1 in. (25 mm), 1-1/2 in. (38 mm) or 2 in. (51mm) thick hollow cylindrical heavy density (min 3.5 pcf) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product.

See **Pipe and Equipment Covering — Materials** (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

*** 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 2024-03-12

XHEZ - Through-penetration Firestop Systems

XHEZ7 - Through-penetration Firestop Systems Certified for Canada

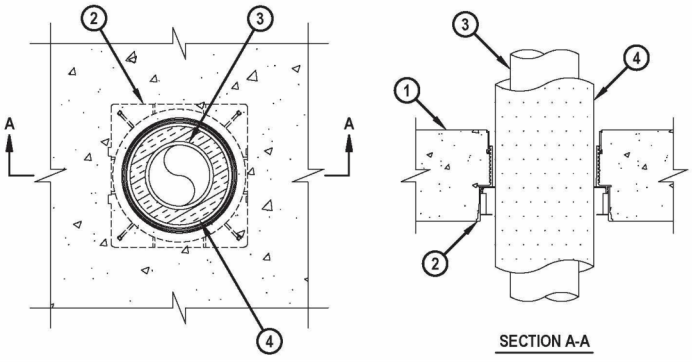
See General Information for Through-penetration Firestop Systems

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

System No. F-A-5083

September 25, 2023

ANSI/UL1479 (ASTM E814)	**CAN/ULC S115**
F Rating — 3 Hr	F Rating — 3 Hr
T Ratings — 0, 1/2, 3/4, 1, 3 Hr (See Item 3)	FT Ratings — 0, 3/4, 1, 3 Hr (See Item 3)
L Rating at Ambient – See Item 3	FH Rating — 3 Hr
L Rating at 400°F – See Item 3	FTH Ratings — 0, 3/4, 1, 3 Hr (See Item 3)
	L Rating at Ambient – See Item 3
	L Rating at 204°C – See Item 3



1. **Floor Assembly —** Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) concrete.

2. **Firestop Device* —** Cast in place firestop device with optional accessories including sleeve extension permanently embedded during concrete placement or grouted in concrete floor assembly in accordance with accompanying installation instructions with a max 2 in. (51 mm) projection above the top surface of the concrete.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-CID U 2", CFS-CID U 2" CA, CFS-CID U 3", CFS-CID U 4", CFS-CID U 6"

3. **Through Penetrants —** One metallic pipe or tubing to be installed within the firestop device. Pipe or tubing to be rigidly supported on both sides of floor assembly. The following types of pipe or tubing may be used:

A. **Steel Pipe —** Nom 4 in. (102 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Iron Pipe –** Nom 4 in. (102 mm) diam (or smaller) cast or ductile iron pipe.

C. **Copper Tubing —** Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tubing. When 4 in. (102 mm) copper tubing is installed in CFS-CID U 6" device, Packing Material (item 5) is required.

D. **Copper Pipe —** Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe. When 4 in. (102 mm) copper pipe is installed in CFS-CID U 6" device, Packing Material (item 5) is required.

The firestop device and metallic penetrant shall be sized as follows:

Nom Pipe Diameter*	Nom Pipe Cover-in. (mm)	Firestop	T (FT, FTH) Rating-Hr	L Rating at AmbientCFM/sq ft (L/s/m^2)	L Rating at 400F (204°C)CFM/sq ft (L/s/m^2)
1/2 in. (13 mm)	1 (25)	CFS-CID U 2" CFS-CID U 2" CA	3	Less Than 1(Less Than 5.1)	Less Than 1 (Less Than 5.1)
1 in (25 mm)	¾ (19)	CFS-CID U 3"	½	Less Than 1 (Less Than 5.1)	Less Than 1 (Less Than 5.1)
1 in. (25 mm)	1 (25)	CFS-CID U 3"	3/4	Less Than 1 (Less Than 5.1)	Less Than 1 (Less Than 5.1)
1 in. (25 mm)	1 (25)	CFS-CID U 4"	3/4	Less Than 1 (Less Than 5.1)	Less Than 1 (Less Than 5.1)
2 in. (51 mm)	3/4 (19) or 1 (25)	CFS-CID U 4"	1	Less Than 1 (Less Than 5.1)	Less Than 1 (Less Than 5.1)
2-1/2 in. (63.5 mm)	3/4 (19) or 1 (25)	CFS-CID U 4"	3/4	Less Than 1 (Less Than 5.1)	Less Than 1(Less Than 5.1)
4 in. (102 mm)	3/4 (19) or 1 (25)	CFS-CID U 6"	3/4	Less Than 1 (Less Than 5.1)	Less Than 1 (Less Than 5.1)

*** When pipe diameter smaller than shown in above table is used the insulated pipe shall be installed in conjunction with Item 5 and the T, FT AND FTH Ratings are 0 hr.**

4. **Tube Insulation - Plastic+ —** Nom 3/4 or 1 in. (19 or 25 mm) thick acryonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing.

See **Plastics+** (QMFZ2) Category in the Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL94 Flammability Classification of 94-5VA may be used.

5. **Packing Material —** (Not Shown) When pipe sizes are less than those shown in the table in Item 3, min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m^3) mineral wool insulation shall be firmly packed to the fullest extent possible within the device flush with top surface of device.

6. **Fill, Void or Cavity Material*- Sealant —** (optional) Min ¼ in (6mm) thickness of sealant applied within the annulus, flush with the top surface of the floor.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC – CFS-S SIL GG or CFS-S SIL SL 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 2023-09-25

XHEZ - Through-penetration Firestop Systems

XHEZ7 - Through-penetration Firestop Systems Certified for Canada

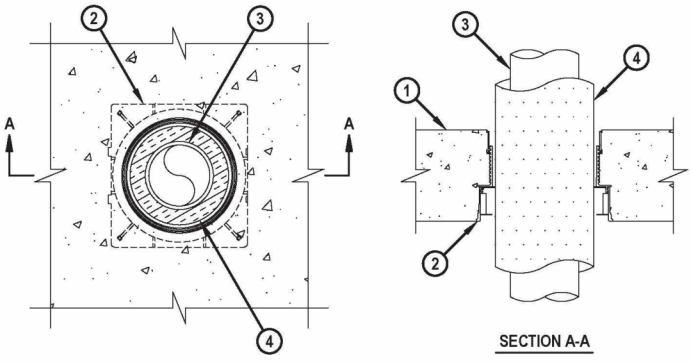
See General Information for Through-penetration Firestop Systems

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

System No. F-A-5084

September 25, 2023

ANSI/UL1479 (ASTM E814)	**CAN/ULC S115**
F Rating — 3 Hr	F Rating — 3 Hr
T Rating — 1-3/4, 2, 2-1/2, 2-3/4 and 3 Hr (See Item 3)	FT Rating — 1-3/4, 2, 2-1/2, 2-3/4 and 3 Hr (See Item 3)
L Rating at Ambient – See Item 3	FH Rating — 3 Hr
L Rating at 400°F – See Item 3	FTH Rating — 1-3/4, 2, 2-1/2, 2-3/4 and 3 Hr (See Item 3)
	L Rating at Ambient – See Item 3
	L Rating at 204°C – See Item 3



1. **Floor Assembly —** Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) concrete.

2. **Firestop Device* —** Cast in place firestop device with optional accessories including sleeve extension permanently embedded during concrete placement or grouted in concrete floor assembly in accordance with accompanying installation instructions with a max 2 in. (51 mm) projection above the top surface of the concrete.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-CID U 2", CFS-CID U 2" CA, CFS-CID U 3", CFS-CID U 4", CFS-CID U 6"

3. **Through Penetrants —** One metallic pipe or tubing to be installed within the firestop device. Pipe or tubing to be rigidly supported on both sides of floor assembly. The following types of pipe or tubing may be used:

A. **Steel Pipe —** Nom 4 in. (102 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Iron Pipe —** Nom 4 in. (102 mm) diam (or smaller) cast or ductile iron pipe

C. **Copper Tubing —** Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tubing.

D. **Copper Pipe —** Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe.

The firestop device, metallic penetrant and pipe covering shall be sized as follows:

Nom Pipe Diameter, in. (mm)	Nom Thick of Pipe Covering, in. (mm)	Firestop Device	T, FT and FTH Ratings, Hr	L Rating at AmbientCFM/sq ft (L/s/m^2)	L Rating at 400°F (204°C)CFM/sq ft (L/s/m^2)
1/2 (13)	1 (25)	CFS-CID U 2" CFS-CID U 2" CA	2-1/2	3 (15.2)	1.5 (7.6)
1/2 (13)	1 (25)	CFS-CID U 2" CFS-CID U 2" CA	2-3/4	3 (15.2)	1.5 (7.6)
1 (25)	1 (25)	CFS-CID U 3"	1-3/4	3 (15.2)	1.5 (7.6)
1 (25) (See Item 5)	1-1/2 (38)	CFS-CID U 4"	3	N/A	N/A
2 (51)	1 (25)	CFS-CID U 4"	1-3/4	3 (15.2)	1.5 (7.6)
2 (51)	1 (25)	CFS-CID U 4"	2-3/4	3 (15.2)	1.5 (7.6)
2 (51)	2 (51)	CFS-CID U 6"	2-3/4	Less Than 1(Less Than 5.1)	Less Than 1 (Less Than 5.1)
4 (102)	1 (25)	CFS-CID U 6"	2	3 (15.2)	1.5 (7.6)

4. **Pipe Covering* —** Nom 1, 1-1/2 and 2 in. (25, 38 and 51 mm) thick hollow cylindrical heavy density (min 3.5 pcf or 56 kg/m^3) glass fiber units, jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied SSL tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product.

See **Pipe and Equipment Covering-Materials** (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

5. **Packing Material —** When using a 1 in. (25 mm) diam pipe with 1-1/2 in. (38 mm) thick glass fiber pipe insulation in a 4 in. (102 mm) device, a min 2 in. (51 mm) thickness of min 4 pcf (64 kg/m^3) mineral wool batt insulation shall be firmly packed into the top of device, flush with the top of the device. When pipe sizes are less than those shown in the table in Item 3, min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m^3) mineral wool insulation shall be firmly packed to the fullest extent possible within the device flush with top surface of device.

6. **Fill, Void or Cavity Material*- Sealant —** (optional) Min ¼ in (6mm) thickness of sealant applied within the annulus, flush with the top surface of the floor.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC – CFS-S SIL GG or CFS-S SIL SL 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 2023-09-25

CFS-CID U ADJUSTABLE EXTENSIONS

Product description

- For use when concrete slabs are greater than 8” thick
- Device may add up to 4” with each extension
- Quick click in connection provides a faster and more reliable connection without the need of additional material (Tape, Screw) system promotes faster, positive connection to the top of the appropriate cast-in device
- Reduces the need of cutting on or off the jobsite, helping increase productivity and safety for your project
- Can be installed on top of CFS-CID U EXT or CFS-CID U devices

Color

- Red

Installation instructions

- See Hilti literature or third-party listings for complete application and installation details

Order Information

Designation	Sales pack quantity	Item number
CFS-CID U 2" ADJ	10	2368256
CFS-CID U 3" ADJ	8	2368257
CFS-CID U 4" ADJ	6	2368258
CFS-CID U 6" ADJ	1	2368259

CFS-CID U EXTENSIONS

Product description

- For use when concrete slabs are greater than 8” thick
- Devices add up to 6” with each extension
- Quick Click Connection system promotes faster, positive connection to the cast-in device

Color

- Red

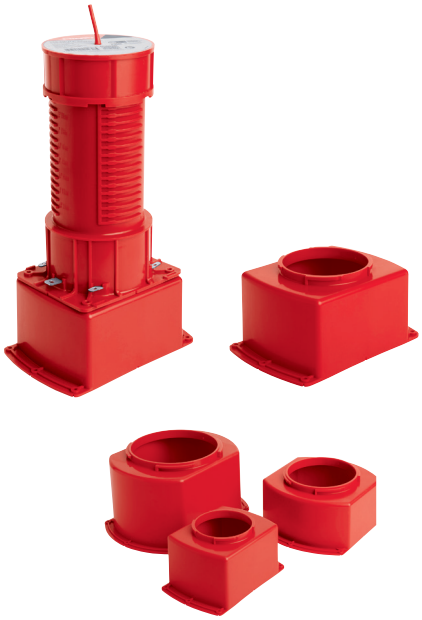
Installation instructions

- See Hilti literature or third-party listings for complete application and installation details

Order Information

Designation	Sales pack quantity	Item number
CFS-CID U 2" EXT	10	2367648
CFS-CID U 3" EXT	8	2367649
CFS-CID U 4" EXT	6	2368240
CFS-CID U 6" EXT	1	2368241

AERATOR ADAPTERS (CFS-CID U AA)



Product description

- Cast-in accessory to create space underneath the slab, for high or tight sovent and pipe fitting applications

Product features

- Up to a 4-1/2” recess created in the slab to reduce final ceiling height
- Allows for vertical, horizontal and angle movement to simplify plumbing installations
- Faster and more secure click in place mechanism when connecting with CFS-CID U

Installation instructions

- See Hilti literature or third-party listings for complete application and installation details

Technical Data

Product dimensions (LxWxH)	2”: 6.1”x 4” x 3.1” 3: 7.1” x 6” x 3.1” 4: 8.9” x 6” x 4.3”
Minimum slab thickness	8”
Color	Red
Storage	Store in dry location
Tested in accordance with	UL 1479 ASTM E 814 ASTM G21

Order Information

Designation	Qty per package	Item number
CFS-CID AA 2"	12	2368242
CFS-CID AA 3"	10	2368243
CFS-CID AA 4"	8	2368244

CFS-CID U STANDOFF

Product description

- Standoff component provides a post-poured solution for water containment and riser clamp support of vertical pipe penetrations

Product features

- Standoff component installed after the concrete is poured
- Allows floor finisher to work with less obstacles or risk of damaging pre-installed standoffs
- Designed to meet requirements for a minimum 2” standoff above substrate surface
- The completed application can provide an effective solution for fire protection, water containment and riser clamp support for vertical pipe penetrations*
- Tested load values according to UL 203

Areas of application

- Vertical pipe penetrations, metallic and non-metallic
- Support of vertical pipe clamps for CFS-CID U Sleeves
- Areas subject to flood or needing water containment

Installation instructions

- See Hilti literature or third-party listings for complete application and installation details

Technical Data*

Dimensions (height)	CFS-CID SO 2”: 2.5” CFS-CID SO 3”: 2.5” CFS-CID SO 4”: 2.5” CFS-CID SO 6”: 2.5”
Installed height (height above sleeve)	CFS-CID SO 2”: 2” CFS-CID SO 3”: 2” CFS-CID SO 4”: 2” CFS-CID SO 6”: 2”
Consistency	Standoff: Metal with plastic overlay
Color	Red
Storage temperature	23 °F to 122 °F

Load Values (maximum allowable)* per UL 203

	Standoff diameter	lb
Metallic and non-metallic pipes	2 inch	750
	3 inch	1050
	4 inch	1500
	6 inch	2650

*Check local codes and requirements.

Material Information Statement

Articles

According to Regulation (EC) 1907/2006, Article 32
Revision: 12.09.2023 Version: 27

1 Identification of the articles and of the company undertaking

1.1 Product identifier

Trade name:

- Bottom track seal CFS-BTS
- CFP-ES ENDO-SHIELD
- Firestop Bandage CFS-B / CFS-CB / CP 646
- Firestop Back Pan Strip CFS-BPS
- Firestop Block CFS-BL / CFS-BL P
- Firestop Board CP 675
- Firestop Boot CFS-BO
- Firestop Box Insert
- Firestop Cable Collar CFS-CC / CFS-RCC / CFS-RCC EXT
- Firestop Cable Module CFS-T
- Firestop Cast-in device and accessories CP 680 / CP 681 / CFS-CID / CFS-CID MD P/M/ CFS-CID MD HS GUI / CFS-CID MD PLT W2/W3 / CFS-CID MD HS / CFS-CID ARB TE-Y / CFS-CID ARB TE-C / CFS-CID U
- Firestop Coated Board CFS-CT B / CFS-CT HDB / CP670 / CP673 / CP676
- Firestop Collar CFS-C / CFS-C P
- Firestop Collar CP 643 / CP 644
- Firestop Composite Sheet CFS-COS
- Firestop Cord CFS-CO
- Firestop Cushion CP 651N
- Firestop Drop-In Device CFS-DID
- Firestop Edge of Slab QuickSeal CFS-EOS QS
- Firestop Endless Collar CFS-C EL
- Firestop Filler Module CFS-T FB
- Firestop Flex Seal CFS-FS
- Firestop Gangplate CFS-SL GP
- Firestop Module Box CFS-MB / CP 657
- Firestop Plug CFS-PL / CP 658
- Firestop Plug Seal CFS-T RR / CFS-T RRS
- Firestop Retrofit Sleeve CFS-SL RK
- Firestop Sleeve CP 645
- Firestop Sleeve Kit CFS-SL SK
- Firestop Modular Sleeves and accessories CFS-MSL / CFS-MSL GPP Pre-Installed Gang Plates / CFS-MSL FGR Floor Grids / CFS-MSL GCL (Ganging Clips) / CFS-MSL GPA Adjustable Gang Plates / CFS-MSL GPR Retrofit Gang Plates
- Firestop Speed Sleeve CFS-SL / CFS-SL GA / CP 653
- Firestop Top Track Seal CFS-TTS
- Firestop Top Track Seal CFS-TTS MD
- Firestop Top Track Cover CFS-TTS MD C
- Firestop Top Track Plug CFS-TTS MD P
- Firestop Top Track Seal CFS-TTS 212
- Firestop Top Track Seal CFS-TTS R
- Firestop Wedge Seal CFS-T WD120
- Firestop Wrap Strip CFS-W EL / SG / P / CP 648
- Foil Tapes CS-FT
- Intumescent façade cavity closer CP674
- Joint Sealing Tapes CS-JST
- Mineral Wool
- Mineral Wool Boards
- Multifunctional Tapes CS-MFT
- Pre-coated Mineral Wool Boards
- Smoke & Acoustic Track Seal CS-TTS SA
- Speed Plug CP 777
- Speed Strip CP 767

1.2 Application of the listed articles

Construction industry.

Refer to Hilti product literature, technical data sheets, 3rd party published listings and national approvals for specific application information. For more details, please contact your local Hilti organization through http://www.hilti.group

1.3 Manufacturer / Supplier

Hilti AG
Feldkircherstr. 100
FL-9494 Schaan
Liechtenstein

Customer Service
Phone +423 (0)844 84 84 85
Fax +423 (0)844 84 84 86

2 Other information

A Safety Data Sheet is not required due to the classification of these products as “articles” according to Regulation (EC) No. 1907/2006 of 18 December 2006 (EU) / 29CFR 1910.1200 (U.S.A.). Consequently, these products are exempted from CLP / OSHA Labeling and SDS requirements.

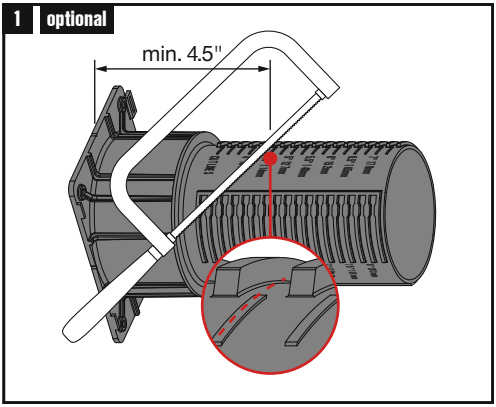
These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Informing department:
chemicals.hse@hilti.com

CFS-CID U
CFS-CID U CA

2364887-10.2023

1 optional



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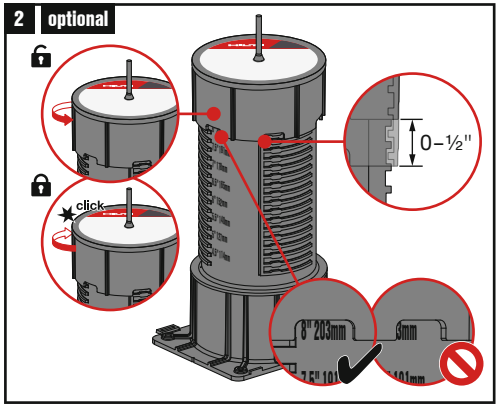

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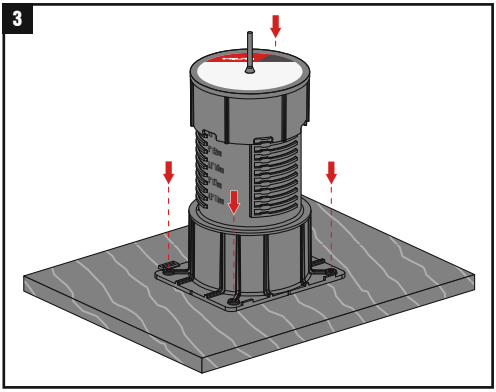

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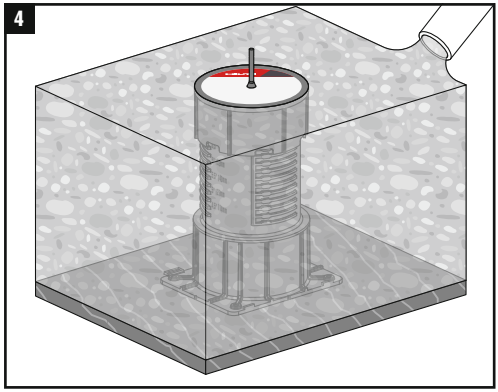

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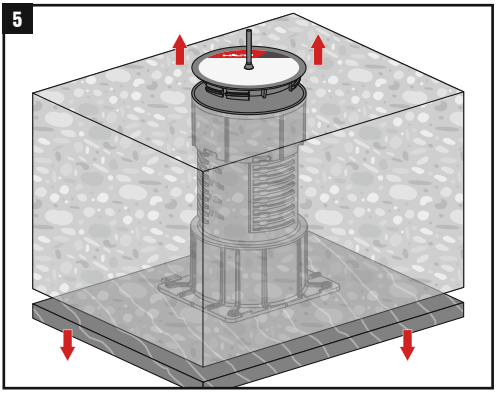

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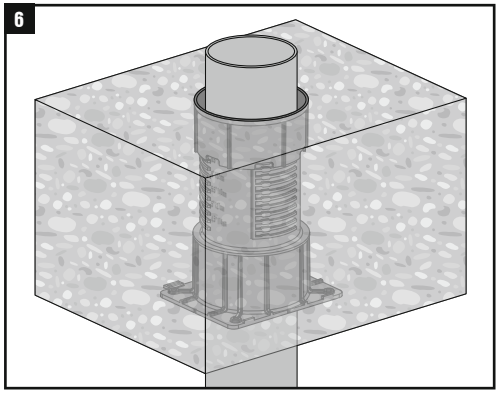
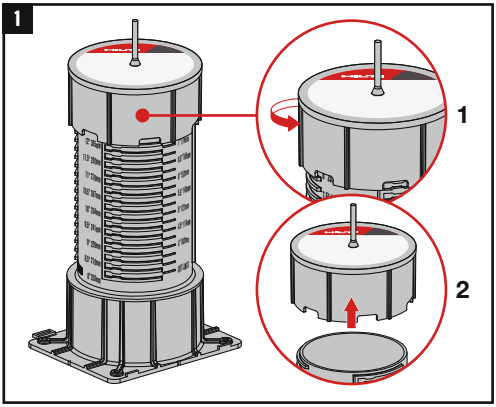
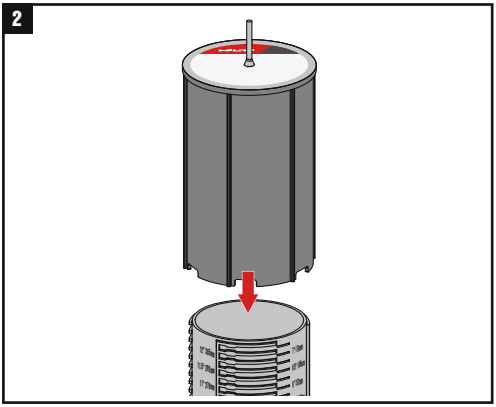
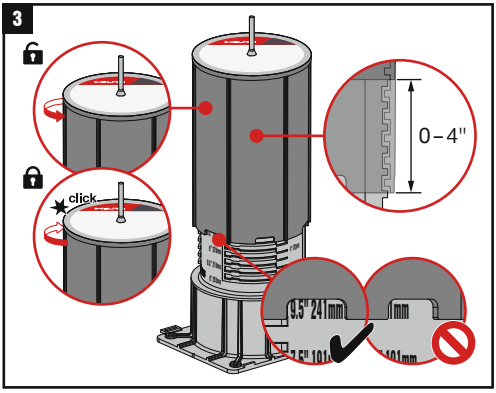
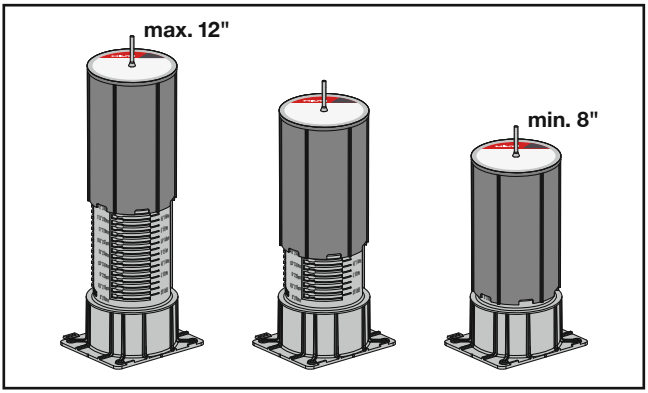


CFS-CID U ADJ









GREEN BUILDING MATERIALS

Certification Form

Product	MRc2 Environmental Product Declaration (EPD)		MRc3 Sourcing of Raw Materials				MRc4 Material Ingredients						Required for Interior Products - All Divs				
	EPD	b) 3rd Party Life Cycle Assessment (LCA)	Does the product's manufacturer have a corporate sustainability report?	a) Take-back Program	City/State or Country of Manufacture	Extraction, manufacture, and purchase locations all within 100 miles?	a) Manufacturer Inventory	b) Health Product Declaration	c) Cradle to Cradle Certificate	d) GreenScreen Assessment	e) REACH Optimization	f) Declare Label	Adhesive / Sealant	VOC Product Type	Provide VOC Content (grams/Liter)	General Emissions Evaluation Available?	TVOC Range
CFS-D 1" Cable Disc	No	No	Yes	No	ON Canada	No	No	No	No	No	No	No	X	Other Architectural Sealants	2	Yes	<0.5 mg/m³
FS-One MAX	No	Yes	Yes	No	Texas	No	No	No	Yes	No	No	No	X	Other Architectural Sealants	9	Yes	<0.5 mg/m³
CP 606	No	Yes	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	71	Yes	<0.5 mg/m³
CP 605	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	36	Yes	<0.5 mg/m³
CFS-SP WB (US)	No	Yes	Yes	No	Florida	No	No	No	No	No	No	No	X	Other Architectural Sealants	34	Yes	0.5 - 5 mg/m³
CFS-SP WB (EU)	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	34	Yes	<0.5 mg/m³
CFS-SP SIL	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	72	Yes	0.5 - 5 mg/m³
CFS-S SIL GG	No	No	Yes	No	ON Canada	No	No	No	No	No	No	No	X	Other Architectural Sealants	48	Yes	<0.5 mg/m³
CFS-S SIL SL	No	No	Yes	No	ON Canada	No	No	No	No	No	No	No	X	Other Architectural Sealants	50	Yes	<0.5 mg/m³
CP 617	No	No	Yes	No	ON Canada	No	No	No	No	No	No	No	X	Other Architectural Sealants	2	Yes	<0.5 mg/m³
CP 618	No	No	Yes	No	ON Canada	No	No	No	No	No	No	No	X	Other Architectural Sealants	5	Yes	<0.5 mg/m³
CP 619T	No	No	Yes	No	ON Canada	No	No	No	No	No	No	No	X	Other Architectural Sealants	2	Yes	<0.5 mg/m³
CFS-COS	No	No	Yes	No	Texas	No	No	No	No	No	No	No	X	Other Architectural Sealants	1	No	UNK
CP 675T	No	No	Yes	No	Hungary	No	No	No	No	No	No	No	X	Other Architectural Sealants	1.9	Yes	<0.5 mg/m³
CP 680-P/M	Yes	No	Yes	No	Minneapolis, MN	No	No	No	Yes	No	No	No	X	Other Architectural Sealants	1.4	Yes	<0.5 mg/m³
CP 681 Tub Box	No	No	Yes	No	Malaysia	No	No	No	No	No	No	No	X	Other Architectural Sealants	1.4	No	UNK

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Certification Form

Product	MRc2 Environmental Product Declaration (EPD)		MRc3 Sourcing of Raw Materials				MRc4 Material Ingredients						Required for Interior Products - All Divs				
	EPD	b) 3rd Party Life Cycle Assessment (LCA)	Does the product's manufacturer have a corporate sustainability report?	a) Take-back Program	City/State or Country of Manufacture	Extraction, manufacture, and purchase locations all within 100 miles?	a) Manufacturer Inventory	b) Health Product Declaration	c) Cradle to Cradle Certificate	d) GreenScreen Assessment	e) REACH Optimization	f) Declare Label	Adhesive / Sealant	VOC Product Type	Provide VOC Content (grams/Liter)	General Emissions Evaluation Available?	TVOC Range
CFS-CID 8"/10"	No	No	Yes	No	Minnesota	No	No	No	Yes	No	No	No	X	Other Architectural Sealants	5	Yes	<0.5 mg/m³
CFS-CID MD	No	Yes	Yes	No	Minnesota	No	No	No	No	No	No	No	X	Other Architectural Sealants	0-17	Yes	<0.5 mg/m³
CFS-TTS	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	22	Yes	<0.5 mg/m³
CS-TTS SA	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	24	Yes	<0.5 mg/m³
CFS-TTS MD	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	2	Yes	<0.5 mg/m³
CFS-TTS MD P	No	No	Yes	No	North Carolina	No	No	No	No	No	No	No	X	Other Architectural Sealants	0	Yes	<0.5 mg/m³
CFS-TTS MD C	No	No	Yes	No	North Carolina	No	No	No	No	No	No	No	X	Other Architectural Sealants	0	Yes	<0.5 mg/m³
CFS-EOS QS	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	2	Yes	<0.5 mg/m³
CFS-BL Fire Blocks	Yes	No	Yes	No	Germany	No	No	No	Yes	No	No	No	X	Other Architectural Sealants	5	Yes	0.5 - 5 mg/m³
CFS-PL Firestop Plugs	Yes	No	Yes	No	Germany	No	No	No	Yes	No	No	No	X	Other Architectural Sealants	4.9	Yes	0.5 - 5 mg/m³
CP 506	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	57	Yes	<0.5 mg/m³
CS-S SA Light	No	No	Yes	No	Mineral Wells, TX	No	No	No	No	No	No	No	X	Other Architectural Sealants	19	Yes	<0.5 mg/m³
CP 572	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	91	Yes	<0.5 mg/m³
CS-SL SA	No	No	Yes	No	Minneapolis, MN	No	No	No	No	No	No	No	X	Other Architectural Sealants	11	No	UNK
CFS-MSL Modular sleeves	No	No	Yes	No	Arlington, TX	No	No	No	No	No	No	No	X	Other Architectural Sealants	16	Yes	<0.5 mg/m³
CP 653	Yes	Yes	Yes	No	Minneapolis, MN	No	No	Yes	Yes	No	No	No	X	Other Architectural Sealants	18	Yes	<0.5 mg/m³

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Product	MRc2 Environmental Product Declaration (EPD)		MRc3 Sourcing of Raw Materials				MRc4 Material Ingredients						Required for Interior Products - All Divs				
	EPD	b) 3rd Party Life Cycle Assessment (LCA)	Does the product's manufacturer have a corporate sustainability report?	a) Take-back Program	City/State or Country of Manufacture	Extraction, manufacture, and purchase locations all within 100 miles?	a) Manufacturer Inventory	b) Health Product Declaration	c) Cradle to Cradle Certificate	d) GreenScreen Assessment	e) REACH Optimization	f) Declare Label	Adhesive / Sealant	VOC Product Type	Provide VOC Content (grams/Liter)	General Emissions Evaluation Available?	TVOC Range
CFS-SL GA L	Yes	No	Yes	No	Malaysia	No	No	Yes	Yes	No	No	No	X	Other Architectural Sealants	18	Yes	<0.5 mg/m³
CFS-SL SK Sleeve Kit	No	No	Yes	No	Minneapolis, MN	No	No	No	No	No	No	No	X	Other Architectural Sealants	4.9	No	UNK
CFS-SL RK Retrofit Kit	No	No	Yes	No	Minneapolis, MN	No	No	No	No	No	No	No	X	Other Architectural Sealants	0.1	No	UNK
CFS-CC	No	No	Yes	No	Minneapolis, MN	No	No	No	No	No	No	No	X	Other Architectural Sealants	5.4	Yes	<0.5 mg/m³
CP 637	No	No	Yes	No	UK	No	No	No	No	No	No	No	X	Other Architectural Sealants	0	Yes	<0.5 mg/m³
CP 620	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	1.3	Yes	<0.5 mg/m³
CFS-T Cable Transit	No	No	Yes	No	Austria and Turkey	No	No	Yes	No	No	No	No	X	Other Architectural Sealants	N/A	No	UNK
CP 643N	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	7.6	Yes	UNK
CP 644	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	7.6	No	UNK
CP 648-S	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	3.1	Yes	<0.5 mg/m³
CP 648-E	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	3.1	Yes	<0.5 mg/m³
CP 767	No	No	Yes	No	New Jersey	No	No	No	No	No	No	No	X	Other Architectural Sealants	0	Yes	<0.5 mg/m³
CP 777	No	No	Yes	No	New Jersey	No	No	No	No	No	No	No	X	Other Architectural Sealants	0	Yes	<0.5 mg/m³
CFS-SP Mineral Wool	Yes	No	Yes	No	Indiana	No	No	Yes	Yes	No	No	No	X	Other Architectural Sealants	0	No	UNK
Fire Finish CFP-SP WB FF 120+	Yes	No	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	0	Yes	<0.5 mg/m³
CFP-SP AWHB	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	122	Yes	<0.5 mg/m³

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Product	MRc2 Environmental Product Declaration (EPD)		MRc3 Sourcing of Raw Materials				MRc4 Material Ingredients						Required for Interior Products - All Divs				
	EPD	b) 3rd Party Life Cycle Assessment (LCA)	Does the product's manufacturer have a corporate sustainability report?	a) Take-back Program	City/State or Country of Manufacture	Extraction, manufacture, and purchase locations all within 100 miles?	a) Manufacturer Inventory	b) Health Product Declaration	c) Cradle to Cradle Certificate	d) GreenScreen Assessment	e) REACH Optimization	f) Declare Label	Adhesive / Sealant	VOC Product Type	Provide VOC Content (grams/Liter)	General Emissions Evaluation Available?	TVOC Range
CFS-DID	No	No	Yes	No	Minneapolis, MN	No	No	No	No	No	No	No	X	Other Architectural Sealants	0.19	No	<0.5 mg/m³
CFS-SL GP Gang Plate	No	No	Yes	No	Minneapolis, MN	No	No	No	No	No	No	No	X	Other Architectural Sealants	1.0 Seal, 5.2 intumescent	No	UNK
Firestop Box Insert	No	No	Yes	No	Houston, TX	No	No	No	No	No	No	No	X	Other Architectural Sealants	1.9	No	UNK
CP 660	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	All Other Adhesives	26	Yes	<0.5 mg/m³
CFS-BTS	No	No	Yes	No	Belgium	No	No	No	No	No	No	No	No	All Other Sealants	1	Yes	<0.5 mg/m³
CFS-CID U	No	No	Yes	No	Mexico	No	No	No	No	No	No	No	No	All Other Sealants	3	Yes	<0.5 mg/m³
CFP-ES Endo-Shield	No	No	Yes	No	New York, NY	No	No	No	No	No	No	No	X	Other Architectural Sealants	1	Yes	<0.5 mg/m³
HIT- RE-500 V3	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	All Other Adhesives	5	Yes	<0.5 mg/m³
HIT-HY 200R V3	Yes	No	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	UNK	Yes	<0.5 mg/m³
HIT-HY 200A V3	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	UNK	Yes	<0.5 mg/m³
HIT-HY 270	Yes	No	Yes	No	Germany	No	No	No	No	No	No	No	X	All Other Adhesives	34	Yes	<0.5 mg/m³
HIT-HY 100	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	All Other Adhesives	6	Yes	<0.5 mg/m³
HIT-ICE	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	UNK	Yes	<0.5 mg/m³
FP 700	No	No	Yes	No	Germany	No	No	No	No	No	No	No	X	Other Architectural Sealants	UNK	Yes	<0.5 mg/m³

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LEGEND
Technical Services, Inc.
88 Empire Drive • St. Paul, Minnesota • 55103
(651) 642-1150 • fax (651) 642-1239

VOC Content Test Certificate

March 17, 2023

Supplier: Hilti Entwicklungsgesellschaft mbH
BU Chemicals
Hiltistrasse 6
86916 Kaufering
GERMANY

Sample Description: CFS-CID U (Inlay Material)

Date Tested: February 09, 2023

Test Method: SCAQMD method 304-91 “Determination of Volatile Organic Compounds (VOC) in Various Materials” as referenced by South Coast Air Quality Management District (SCAQMD) Rule 1168. The values also comply with the requirements of EPA test method #24.

Test Data:

Specification	Product
LEED 4.1 Low-Emitting Materials – Adhesives and Sealants	**CFS-CID U (Inlay Material)**
Green Building Council of Australia Green Star Office Design 3.0, IEQ-13 Green Star Office Design 2.0, IEQ-13 Green Star Office Interiors 1.1, IEQ-11	
Architectural Sealants **VOC Limit: 250 g/L**	**Product contains: 3 g/L of VOC**

Tom Barrett
Vice President/Strategic Analytical Services

Testing Load Capacity CFS-CID U

02.04.2024

The U.S. Department of Labor Occupational Safety & Health Administration (OSHA) addresses the safety and health of America's workers by setting and enforcing standards, providing training, outreach, and education, establishing partnerships, and encouraging continual improvement in workplace safety and health.

Part 1926 sets the standard for “Safety and Health Regulations for Construction” and 1926 Subpart M specifies the details for “Fall protection”.
1926.500 - *Scope, application, and definitions applicable to this subpart*
1926.501 - *Duty to have fall protection*
1926.502 - *Fall protection systems criteria and practices*

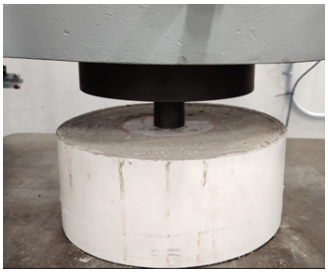
The target is defined as: “*Each employee on walking/working surfaces shall be protected from falling through holes (including skylights) more than 6 feet (1.8 m) above lower levels, by personal fall arrest systems, covers, or guardrail systems erected around such holes.*” [1926.501(b)(4)(i)]

General definition for a hole that requires safety protection: “*Hole means a gap or void 2 inches or more in its least dimension, in a floor, roof, or other walking/working surface.*” [1926.500(b)]

Above mentioned “covers” are defined as the following: [1926.502(i)]:
"*Covers for holes in floors, roofs, and other walking/working surfaces shall meet the following requirements:*

(1) *Covers located in roadways and vehicular aisles shall be capable of supporting, without failure, at least twice the maximum axle load of the largest vehicle expected to cross over the cover.*
(2) *All other covers shall be capable of supporting, without failure, at least twice the weight of employees, equipment, and materials that may be imposed on the cover at any one time.*
(3) *All covers shall be secured when installed so as to prevent accidental displacement by the wind, equipment, or employees.*
(4) *All covers shall be color coded or they shall be marked with the word "HOLE" or "COVER" to provide warning of the hazard.*
Note: This provision does not apply to cast iron manhole covers or steel grates used on streets or roadways.

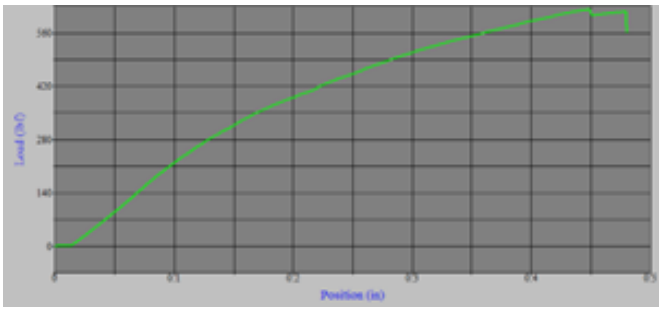
As guidance Hilti internally conducted load bearing capacity tests on the Hilti CFS-CID U Cast-in Firestop devices to prove compliance with the above mentioned safety standards.



Devices were tested for load bearing capacity on a tensile testing machine. Force was applied using a 1.69 in2 steel rod to simulate concentrated loading.

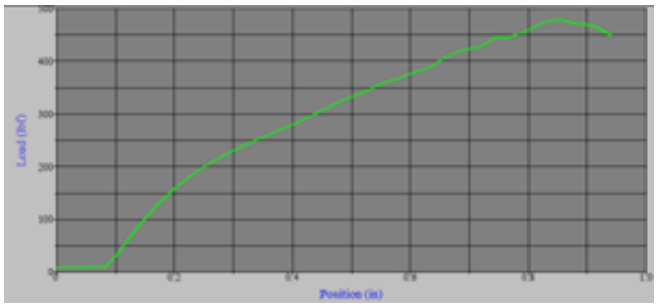
Results:

CFS-CID U 2" & CFS-CID U 2" CA



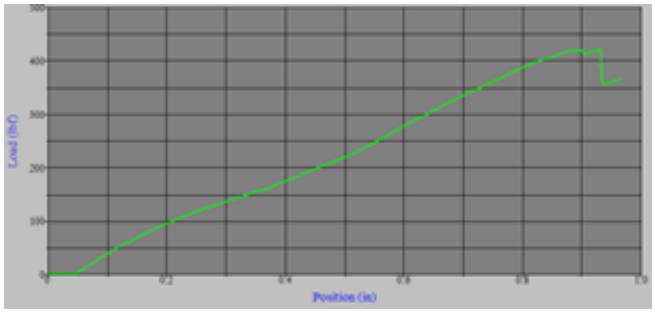
Max. load: 620 lbs

CFS-CID U 3"



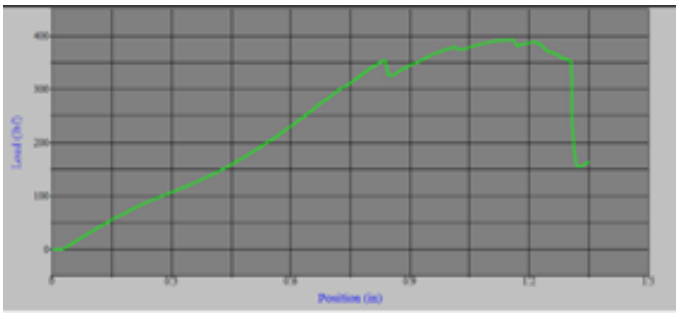
Max. load: 475lbs

CFS-CID U 4"



Max. load: 420lbs

CFS-CID U 6"



Max. load: 350lbs

The results demonstrate that a sufficient load bearing capacity is guaranteed. In cases of loads exerted by a larger area than 1.69 in sq. in. (1.69 sq. in. symbolizes ladder base; larger examples could be shoe, wheel, etc.) the overall load bearing capacity is increased.

CERTIFICATE OF COMPLIANCE

Certificate Number	R15431
Report Reference	R15431-20230828
Date	2023-August-29
Issued to:	HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC 7250 Dallas Pky, Legacy Tower Suite 1000 Plano TX, 75024 US
This is to certify that representative samples of	FIRESTOP DEVICES See Addendum Page for Product Designation(s). Have been evaluated by UL in accordance with the Standard(s) indicated on this Certificate.
Standard(s) for Safety:	ANSI/UL 1479, Fire Tests of Penetration Firestops CAN/ULC S115, Standard Method of Fire Tests of Firestop Systems
Additional Information:	See the UL Online Certifications Directory at https://iq.ulprospector.com for additional information

This Certificate of Compliance indicates that representative samples of the product described in the certification report have met the requirements for UL certification. It does not provide authorization to apply the UL Mark. Only the Authorization Page that references the Follow-Up Services Procedure for ongoing surveillance provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.

Deborah Jennings-Conner

Deborah Jennings-Conner, VP Regulatory Services

UL LLC

CERTIFICATE OF COMPLIANCE

Certificate Number	R15431
Report Reference	R15431-20230828
Date	2023-August-29

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

Firestop devices for use in specific through-penetration firestop systems. The various suffixes for the designations of the firestop devices indicate the maximum nominal outside diameter of the penetrant for which the device is intended.

Models:
CFS-CID U-2", 2"CA, 3", 4", and 6" Firestop Device

Deborah Jennings-Conner

Deborah Jennings-Conner, VP Regulatory Services

UL LLC