

Firestop Submittal Package

Project:

Date:

Submitted by:

*This submittal is auto-generated based on user-selected inputs.
Therefore, Hilti makes no representation as to the suitability of these systems for their intended use.*

Hilti. Outperform. Outlast.



Hilti Firestop
Saving lives
through innovation
and education

Table of Contents

- UL Listings**
- C-AJ-5450.....1
- W-L-53813

- CFP-ES ENDO-SHIELD**
- Product data Sheet for CFP-ES ENDO-SHIELD.....4
- UL Certificate of Compliance for CFP-ES ENDO-SHIELD.....5
- Safety Data Sheet (SDS) for CFP-ES ENDO-SHIELD.....7

- FS-ONE MAX Firestop intumescent sealant**
- Product Data Sheet for FS-ONE MAX Intumescent Firestop Sealant.....14
- UL Certificate of Compliance for FS-ONE MAX Intumescent Firestop Sealant.....15
- Safety Data Sheet (SDS) for FS-ONE MAX Intumescent Firestop Sealant16
- LEED Information for FS-ONE MAX Intumescent Firestop Sealant.....23

- Mineral wool**
- Product Data Sheet for Mineral Wool.....24
- UL Certificate of Compliance for Mineral Wool26
- Material Information Statement for Firestop Products.....29
- LEED Information for Mineral Wool.....30

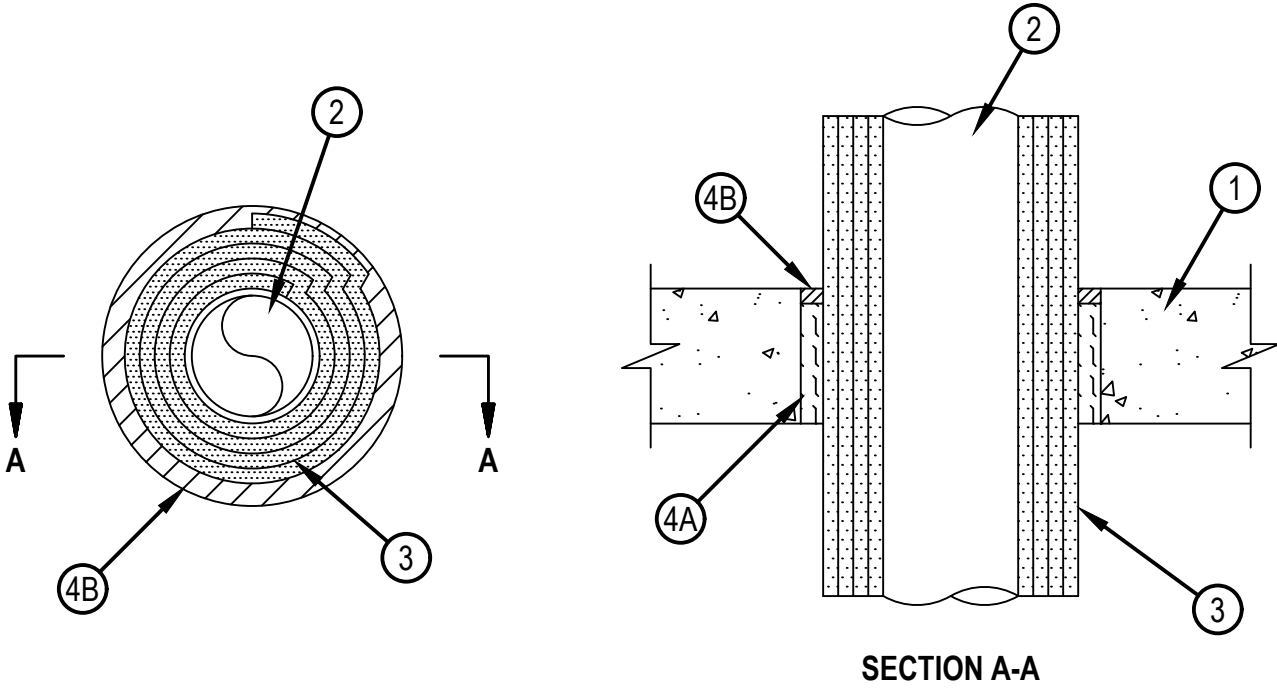


Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. C-AJ-5450

CAJ 5450

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating - 2 Hr	F Rating - 2 Hr
T Rating - 2 Hr	FT Rating - 2 Hr
L Rating At Ambient — 4 CFM/sq ft	FH Rating - 2 Hr
L Rating At 400°F — Less Than 1 CFM/sq ft	FTH Rating - 2 Hr
	L Rating At Ambient — 20.3 L/s/m ²
	L Rating At 204°C — Less Than 5.1 L/s/m ²



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November 16, 2021

System No. C-AJ-5450

CAJ 5450

1. Floor or Wall Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete floor or min 5 in. (127 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete wall. Floor may also be constructed of any min 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units*. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 10 in. (254 mm). Max diam of opening in floor constructed of hollow-core precast concrete units is 7 in. (178 mm).

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

2. Through Penetrants — One metallic pipe to be installed either concentrically or eccentrically within the firestop system. Pipe to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes 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.
3. Pipe Covering Material* — Nom 0.5 in. (12.7 mm) flexible sheet material. A min of three layers of pipe covering shall be continuously wrapped around the penetrant with a min 2 in. (51 mm) overlap at the final layer. All seams to be sealed with FSK or foil tape. Wrap layers secured in place with 18 ga. steel tie wire spaced max 6 in. (152 mm) on center on outermost layer. The annular space between pipe covering material and opening shall be min 1/2 in. (13 mm) to max 1-1/4 in. (32 mm).

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFP-ES Endo-Shield

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/m³) mineral wool batt insulation compressed and firmly packed within annular space. Packing material to be recessed from top surface of floor or from both surfaces of wall to accommodate the required thickness of fill material (Item 4B).
 - B. Fill, Void or Cavity Material* — Sealant — 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.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — 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.



Hilti Firestop Systems

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November 16, 2021

Page: 2 of 2

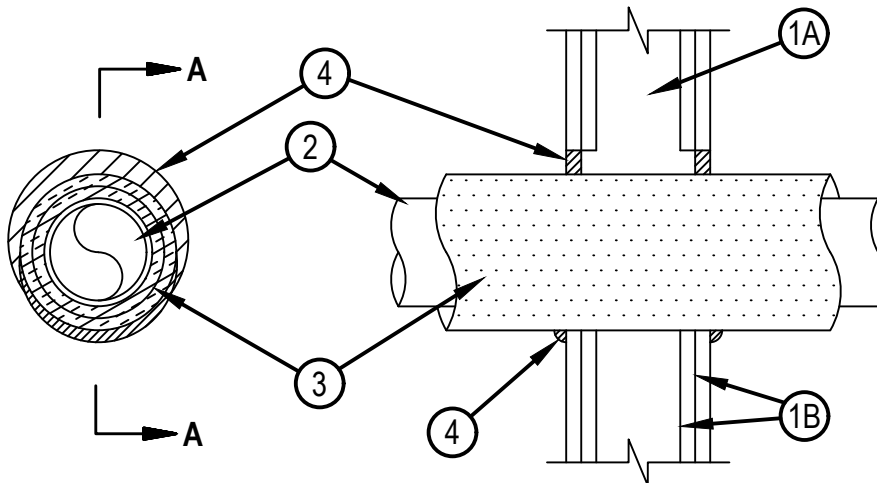


Classified by
Underwriters Laboratories, Inc.
to UL 1479 and CAN/ULC-S115

System No. W-L-5381

WL 5381

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
T Ratings — 1 and 2 Hr (See Item 1)	FT Ratings — 1 and 2 Hr (See Item 1)
L Rating At Ambient — 4 CFM/Sq Ft	FH Ratings — 1 and 2 Hr (See Item 1)
L Rating At 400°F — Less Than 1 CFM/Sq Ft	FTH Ratings — 1 and 2 Hr (See Item 1)
	L Rating At Ambient — 20.2 L/s/m ²
	L Rating At 204°C — Less Than 5.1 L/s/m ²



SECTION A-A

- 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:
 - Studs —Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-5/8 in. (92 mm) wide and spaced max 24 in. (610 mm) OC.
 - Gypsum Board* —Min 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 Wall and Partition Design. Max diam of opening is 9-1/2 in. (241 mm).
The hourly F, T, FH and FTH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
- Through Penetrants —One metallic pipe or tubing to be installed within the firestop system. Pipe or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tubing may be used:
 - Steel Pipe —Nom 4 in. (102 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - Iron Pipe —Nom 4 in. (102 mm) diam (or smaller) cast or ductile iron pipe.
- Pipe Covering Material* — Nom 0.5 in. (12.7 mm) flexible sheet material. Pipe covering shall be continuously wrapped around the penetrant for a minimum three layers, with a min 2 in. (51 mm) overlap at the seam in the final layer. Seam to be sealed with FSK or foil tape. Pipe covering to be secured in position using min No. 18 AWG steel tie wire located within 1 in. (25 mm) of wall and spaced max 6 in. (152 mm) OC. The annular space between pipe covering and periphery of opening shall be min 0 in. (point contact) to max 1-5/8 in. (41 mm).
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFP-ES Endo-Shield
- Fill, Void or Cavity Material* — Sealant —Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point contact location between pipe covering and gypsum board, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe covering/gypsum board interface on both surfaces of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — 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.



Hilti Firestop Systems

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November 15, 2021

CFP-ES ENDO-SHIELD

Product description

- Hilti Endo-Shield is a high-temperature endothermic mat for passive fire protection of critical cable circuits, fuel lines, communication systems and many other MEP systems. It is the industry's first LBP (Low Bio Persistent) endothermic mat for passive fire protection. LBP materials allow fibers to more easily clear from the lungs compared to ceramic fibers, resulting in a safer non-carcinogenic product for the installer.

Applications for use

- Fire protection of critical infrastructure, circuits and Distributed Antenna Systems which should remain operational under fire conditions
- Fire protection of cables within conduits
- Help protect fuel oil piping from fire — such as for backup generators
- Providing a T-rating for conduit, EMT or pipe penetrations — such as through floors in electrical, data or mechanical rooms
- Fire protection of large membrane penetrations — such as recessed electrical boxes/panels in rated barriers, fire extinguisher cabinets or medical gas box outlet

Advantages

- Faster, easier fire protection — high flexibility and low weight makes Hilti endothermic mat a more efficient solution, especially for small diameter pipes
- Safer jobsites — CFP-ES Hilti Endo-Shield is made using non-carcinogenic LBP fibers, helping to remove a common safety hazard for installers
- Helps to lower total installed cost — this simpler method can translate to help reduce significant labor and time savings on-site compared to traditional fire protection solutions
- Extensive third-party performance verification — tested to ASTM E1725 for circuit integrity, UL1489 for fuel pipe protection and tested in accordance to UL1479 (ASTM E814) for membrane and through penetrations

Installation instructions

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

Technical Data

Application temperature range	-4 °F to 176 °F (-20°C to 80°C)
Color	Silver
Density	32.6 lb/ft³
Dimension	(L x W) 20 ft. x 2 ft.
Shelf life	Unlimited
Storage and transportation temperature range	-4 °F to 176 °F (-20°C to 80°C)
Thickness	0.5 in.
Weight	54.4 lbs
Tested in accordance with	<ul style="list-style-type: none"> • UL 1489 protection of fuel & oil piping system • ASTM E1725 — circuit protection standard • UL 1479 (ASTM E814) for membrane and through penetrations

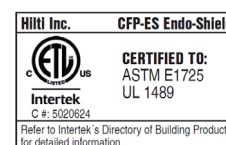
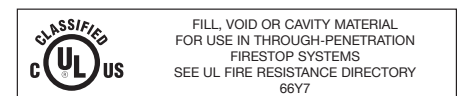


Order Information

Designation	Qty per package	Item number
Hilti Endo-Shield CFP-ES	1 roll	2331829

Specified Divisions

Section 07 80 00	Fire and Smoke Protection
Section 07 84 00	Firestopping
Section 26 01 00	Operation & Maintenance of Electrical Systems
Section 27 20 00	Data Communications



CERTIFICATE OF COMPLIANCE

Certificate Number R13240
Report Reference R13240-20210714
Date 2021-July-23

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 FILL, VOID OR CAVITY MATERIALS
See Addendum Page for Product Designation(s).

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

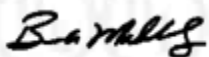
Standard(s) for Safety: ANSI/UL 1479, Fire Tests of Penetration Firestops
CAN/ULC S115, Standard Method of Fire Tests of Firestop Systems

Additional Information: See the UL Online Certifications Directory at <https://iq.ulprospector.com> for additional information

This Certificate of Compliance does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure 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.



Bruce Mahrenholz, Director North American Certification Program

UL LLC

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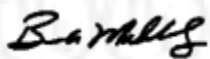


CERTIFICATE OF COMPLIANCE

Certificate Number R13240
Report Reference R13240-20210714
Date 2021-July-23

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

CFP-ES Endo-Shield for use in specific Through Penetration Firestop Systems published in the Fire Resistance Directory.



Bruce Mahrenholz, Director North American Certification Program

UL LLC

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CFP-ES Endo-Shield

Safety Data Sheet

A safety data sheet is not required for this product. This Product Safety Information Sheet has been created on a voluntary basis

Issue date: 07/21/2021

Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form	Article
Product name	CFP-ES Endo-Shield
Product code	BU Fire Protection_Safety Information



1.2. Recommended use and restrictions on use

Use of the substance/mixture	Passive fire protection system
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1.3. Supplier

Supplier Hilti, Inc. Legacy Tower, Suite 1000 7250 Dallas Parkway Plano, TX 75024 - USA T +1 9724035800 1-800-879-8000 toll free - F +1 918 254 0522	Department issuing data specification sheet Hilti AG Feldkircherstraße 100 Schaan, 9494 - Liechtenstein T +423 234 2111 chemicals.hse@hilti.com
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1.4. Emergency telephone number

Emergency number	Chem-Trec Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada) Tel.: 703 527 3887 (Other countries) +1 918 8723000 1-800-879-8000 toll free
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SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labelling

No labelling applicable

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : 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.

2.4. Unknown acute toxicity (GHS US)

Not applicable

CFP-ES Endo-Shield

Safety Data Sheet

A safety data sheet is not required for this product. This Product Safety Information Sheet has been created on a voluntary basis

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Alkaline earth silicate	(CAS-No.) 436083-99-7	95 – 98	Not classified

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	Never give anything by mouth to an unconscious person.
First-aid measures after inhalation	Remove person to fresh air and keep comfortable for breathing. Allow the victim to rest.
First-aid measures after skin contact	Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	Rinse cautiously with water for several minutes. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	Rinse mouth out with water. Drink plenty of water.

4.2. Most important symptoms and effects (acute and delayed)

Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met.
Symptoms/effects	Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.
Symptoms/effects after skin contact	Product dust may cause mechanical irritation to the skin and mucous membranes.
Symptoms/effects after eye contact	Dust from this product may cause eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	The product itself does not burn. Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

No additional information available

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	Prevent fire fighting water from entering the environment.
Protection during firefighting	Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	Wear recommended personal protective equipment.
Emergency procedures	Evacuate unnecessary personnel.

CFP-ES Endo-Shield

Safety Data Sheet

A safety data sheet is not required for this product. This Product Safety Information Sheet has been created on a voluntary basis

Measures in case of dust release Wear suitable respiratory protection.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Minimise generation of dust.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling Avoid dust formation. Do not breathe dust. Avoid contact with skin and eyes. Limit use of power tools unless in conjunction with local exhaust ventilation. Use hand tools whenever possible.

Hygiene measures Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions Keep container closed when not in use. Avoid creating or spreading dust. Store in a dry place.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

CFP-ES Endo-Shield
No additional information available
Alkaline earth silicate (436083-99-7)
No additional information available

8.2. Appropriate engineering controls

No additional information available

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure. Protective clothing. Gloves. Safety glasses.

Hand protection:

Wear protective gloves.

Type	Material	Permeation	Thickness (mm)	Penetration
Reusable gloves				

Eye protection:

Chemical goggles or safety glasses. EN 166

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

CFP-ES Endo-Shield

Safety Data Sheet

A safety data sheet is not required for this product. This Product Safety Information Sheet has been created on a voluntary basis

In case of dust formation use respirator with filter: Dust production: dust mask with filter type P2

Personal protective equipment symbol(s):



Other information:

Limit use of power tools unless in conjunction with local exhaust ventilation. Use hand tools whenever possible.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid
Colour	white
Odour	odourless
Odour threshold	No data available
pH	No data available
Melting point	1500 – 1550 °C
Freezing point	No data available
Boiling point	No data available
Flash point	No data available
Relative evaporation rate (butylacetate=1)	No data available
Flammability (solid, gas)	No data available
Vapour pressure	No data available
Relative vapour density at 20 °C	No data available
Relative density	2.6
Solubility	Insoluble.
Partition coefficient n-octanol/water (Log Pow)	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available
Explosive limits	No data available
Explosive properties	No data available
Oxidising properties	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal use.

10.4. Conditions to avoid

No additional information available

CFP-ES Endo-Shield

Safety Data Sheet

A safety data sheet is not required for this product. This Product Safety Information Sheet has been created on a voluntary basis

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified
Skin corrosion/irritation	Not classified
Serious eye damage/irritation	Not classified
Respiratory or skin sensitisation	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
STOT-single exposure	Not classified
STOT-repeated exposure	Not classified
Aspiration hazard	Not classified
Viscosity, kinematic	
Potential adverse human health effects and symptoms	Based on available data, the classification criteria are not met.
Symptoms/effects	Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	Dust of the product, if present, may cause respiratory irritation after an excessive inhalation exposure.
Symptoms/effects after skin contact	Product dust may cause mechanical irritation to the skin and mucous membranes.
Symptoms/effects after eye contact	Dust from this product may cause eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

Alkaline earth silicate (436083-99-7)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Alkaline earth silicate (436083-99-7)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

CFP-ES Endo-Shield

Safety Data Sheet

A safety data sheet is not required for this product. This Product Safety Information Sheet has been created on a voluntary basis

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID /

ADR	IMDG	IATA	RID
14.1. UN number			
Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available			

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Rail transport

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

Alkaline earth silicate	CAS-No. 436083-99-7	95 – 98%
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CFP-ES Endo-Shield

Safety Data Sheet

A safety data sheet is not required for this product. This Product Safety Information Sheet has been created on a voluntary basis

15.2. International regulations

CANADA

Alkaline earth silicate (436083-99-7)
--

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

A safety data sheet is not required for this product. This Product Safety Information Sheet has been created on a voluntary basis

SDS_US_Hilti

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

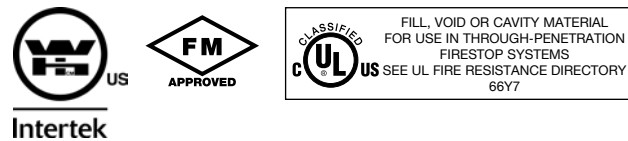
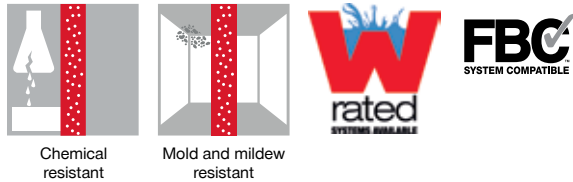
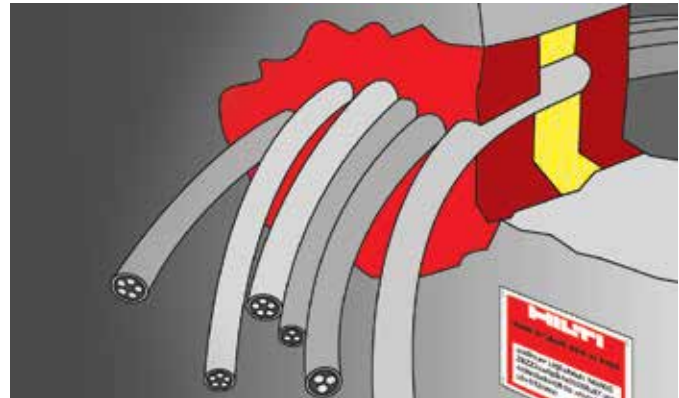
High-performance intumescent firestop sealant FS-ONE MAX

Applications

- For effectively sealing most common through penetrations in a variety of base materials
- For use on concrete, masonry and drywall
- Mixed and multiple penetrations
- Metal pipe penetrations: copper, steel and EMT
- Insulated metal pipe penetrations: steel and copper
- Plastic pipe penetrations: closed or vented

Advantages

- US-produced: "Buy American" compliant
- One product for a variety of common through penetrations
- Cost-effective, easy-to-use solution
- Water-based and paintable
- Industry-leading VOC results
- Ethylene glycol-free



Technical data	
Chemical basis	Water-based acrylic dispersion
Approx. Density	84.3 lb/ft ³
Color	Red
Application temperature range	41 - 104 °F
Approx. cure time ¹⁾	4 mm/3 days
Temperature resistance range	-4 to 212 °F
Mold and mildew performance	Class 0 (ASTM G21-96)
Mold and mildew resistance	Yes
Surface burning characteristics UL 723 (ASTM E84)	Flame spread: 0 Smoke development: 10
Tested in accordance with	UL 1479, ASTM E814, ASTM E84, CAN/ ULC-S115, ASTM G21, ASTM E90
California State fire marshal approval	CSFM Listing 4485-1200:0108 for FS-ONE MAX Intumescent Firestop Sealant
Expansion ratio (unrestricted, up to)	1:5

¹⁾ at 75°F/24°C, 50% relative humidity



Order Designation	Package Content	Item number
FS-ONE MAX 20oz foil (3 case + disp)	1x Foil pack dispenser manual CS 270-P1, 75x Firestop sealant FS-ONE MAX 20 oz foil	3530252
FS-ONE MAX 10oz tube (1 case)	12x Firestop sealant FS-ONE MAX 10 oz cartridge	3530249
FS-ONE MAX 5 gallon (18 pails)	18x Firestop sealant FS-ONE MAX 5 gallon pail	3530263
FS-ONE MAX 20oz foil (1 case)	25x Firestop sealant FS-ONE MAX 20 oz foil	3530250
FS-ONE MAX 20oz foil (3 cases)	75x Firestop sealant FS-ONE MAX 20 oz foil	3530251
FS-ONE MAX 20oz Foil-Pallet	600x FSONE-MAX 20 oz foil, 290x Bulk Shipping Condition	3534713
FS-ONE MAX 10 oz cartridge		2101531
FS-ONE MAX 5 gallon pail		2101533

CERTIFICATE OF COMPLIANCE

Certificate Number 20150108-R13240
Report Reference R13240
Issue Date 2015-January-08

Issued to: Hilti Construction Chemicals, Div of Hilti Inc.
5400 S 122nd East Ave
Tulsa, OK 74146

**This is to certify that
representative samples of**


Fill, Void or Cavity Materials
Fill, Void or Cavity Materials Certified for Canada
FS-ONE MAX Intumescent Sealant for use in Through-
Penetration Firestop and Joint Systems in the UL Fire
Resistance Directory and in the Products Certified for
Canada Directory.

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

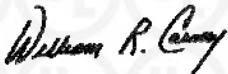
Standard(s) for Safety: ANSI/UL 1479, "Fire Tests of Through-Penetration
Firestops," – Edition 4
ANSI/UL 2079, "Tests for Fire Resistance of Building Joint
Systems," – Edition 4 – Revision Date 2014/12/17
CAN/ULC-S115, "Standard Method of Fire Tests of Firestop
Systems." – Edition 4 – Issue Date 2011/06/01

Additional Information: See the UL Online Certifications Directory at
www.ul.com/database for additional information

Only those products bearing the UL Classification Mark should be considered as being covered by
UL's Classification and Follow-Up Service.

The UL Classification Mark includes: UL in a circle: with the word "CLASSIFIED"  (as shown); a control
number (may be alphanumeric) assigned by UL; a statement to indicate the extent of UL's evaluation of
the product; and the product category name (product identity) as indicated in the appropriate UL
Directory.

Look for the UL Classification Mark on the product.



William R. Carney, Director, North American Certification Programs

UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please
contact a local UL Customer Service Representative at www.ul.com/contactus



FS-ONE MAX; CFS-FIL

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 07/04/2017

Revision date: 07/04/2017

Supersedes: 12/17/2015

Version: 1.3

SECTION 1: Identification

1.1. Identification

Product form	Mixture
Name	FS-ONE MAX; CFS-FIL
Product code	BU Fire Protection
Chemical structure	



1.2. Relevant identified uses of the substance or mixture and uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Hilti, Inc.
 Legacy Tower, Suite 1000
 75024 Plano - USA
 T +1 9724035800
 1-800-879-8000 toll free - F +1 918 254 0522

Supplier

Hilti, Inc.
 Legacy Tower, Suite 1000
 75024 Plano - USA
 T +1 9724035800
 1-800-879-8000 toll free - F +1 918 254 0522

Department issuing data specification sheet

Hilti AG
 Feldkircherstraße 100
 9494 Schaan - Liechtenstein
 T +423 234 2111
chemicals.hse@hilti.com

1.4. Emergency telephone number

Emergency number	Chem-Trec Tel.: 1 800 424 9300 (USA, PR, Virgin Islands, Canada) Tel.: 703 527 3887 (Other countries) +1 918 8723000 1-800-879-8000 toll free
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. Label elements

GHS-US labelling

No labelling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

FS-ONE MAX; CFS-FIL

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Quartz	(CAS No) 14808-60-7	2.5 - 5	Carc. 1A, H350

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	Get medical advice/attention if you feel unwell.
First-aid measures after skin contact	Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

No additional information available

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Reactivity The product is non-reactive under normal conditions of use, storage and transport.

5.3. Advice for firefighters

Protection during firefighting Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

Protective equipment For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Mechanically recover the product.

6.4. Reference to other sections

For further information refer to section 13.

FS-ONE MAX; CFS-FIL

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Density	≈ 1.35 g/cm ³
Molecular mass	Not determined
Solubility	No data available
Log Pow	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available

9.2. Other information

VOC content	9 g/l
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SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	Not classified
Skin corrosion/irritation	Not classified pH: ≈ 7.85
Serious eye damage/irritation	Not classified pH: ≈ 7.85
Respiratory or skin sensitisation	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified

Quartz (14808-60-7)	
IARC group	1 - Carcinogenic to humans
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified

FS-ONE MAX; CFS-FIL

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Aspiration hazard Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming No known effects from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods Dispose of contents/container in accordance with licensed collector's sorting instructions.
 Waste disposal recommendations Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	RID
14.1. UN number			
Not regulated for transport			
14.2. UN proper shipping name			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available			

FS-ONE MAX; CFS-FIL

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

14.6. Special precautions for user

- Overland transport

- Transport by sea

No data available

- Air transport

No data available

- Rail transport

Carriage prohibited (RID) No

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

CANADA

FS-ONE MAX; CFS-FIL	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

National regulations

Quartz (14808-60-7)
Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Revision date 07/04/2017

Full text of H-statements:

H350	May cause cancer
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FS-ONE MAX; CFS-FIL

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

NFPA health hazard

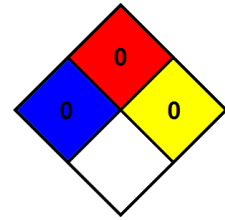
0 - Materials that, under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

NFPA fire hazard

0 - Materials that will not burn under typical dire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity

0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health

0 Minimal Hazard - No significant risk to health

Flammability

0 Minimal Hazard - Materials that will not burn

Physical

0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection

B

B - Safety glasses, Gloves

SDS_US_Hilti

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product



June 17, 2019

To Whom It May Concern:

Re: **Hilti FS-ONE Max Firestop – LEED Info.**

Item Numbers:

2101531
2101532
2101533

The Hilti FS-ONE MAX Firestop is manufactured in the United States

There is no post-consumer or post-industrial recycled content in FS-ONE MAX and it cannot be recycled. The VOC content for FS-ONE MAX is 9 grams/liters.

FS-ONE MAX is not regulated as a hazardous waste by the Federal EPA Standards. The regulations for the disposal of non-regulated industrial waste can vary from state to state and even city to city. For this reason, you should consult your local and state regulatory agencies for direction on disposal.

Please feel free to contact me at (918) 872-3704 if you have questions.

Sincerely,

Jerry Metcalf MPH, CHMM
Sr. Manager, Safety/Environmental
Hilti Inc
(918) 872 3704
jerry.metcalf@hilti.com

Rev. Date: 5/30/19

The manufacturing plant location on this certificate has been provided for LEED reporting purposes only. It should never be used for Country of Origin certification or a representation of compliance/non-compliance with Buy American or Buy America requirements, as those requirements differ.

The manufacturing plant location(s) identified on the certificate represent standard Hilti catalog products only. "Specially" produced non-catalog Hilti products may have differing manufacturing plant locations.

Contact your Hilti representative in cases of "specially" produced products for a custom LEED certificate.

Hilti, Inc.
5400 South 122nd East Avenue
Tulsa, OK 74146
1-800-879-8000
www.hilti.com

Fire Containment Insulation

Thermafiber® Safing™

- + Exceptional performance in Perimeter Fire Containment Systems
- + Provides life saving fire protection in rated assemblies
- + Fire resistant to temperatures above 2,000°F (1,093°C)
- + Easy to fabricate for through penetrations and firestopping
- + Conserves energy, reduces greenhouse gas emissions
- + Resists moisture
- + Controls noise and sound

LEED® v2009 Green Building Credits				
Minimum 70% Recycled Content ¹	Energy & Atmosphere	Materials & Resources	Indoor Environmental Quality	Innovation in Design
	1	2.1, 2.2 4.1, 4.2 5.1, 5.2	9	1



Thermafiber Safing and FireSpan® insulation provide the critical components of the perimeter fire containment system in the 111 South Wacker Building in Chicago, IL. Thermafiber insulation also contributed to the building's LEED® Gold Rating.



Thermafiber® Safing™ is compression fitted between FireSpan® insulation and the concrete slab edge to create a perimeter fire containment system.



Thermafiber® Safing™ Insulation

Description:

THERMAFIBER Safing™ products are designed to provide life saving fire protection in perimeter fire containment systems, floor and wall penetrations, construction joints, and other firestopping applications. These products are noncombustible, moisture-resistant, noncorrosive, nondeteriorating, mildew-proof and vermin-proof. Thermafiber Safing provides thermal insulation, fire protection, and acoustical control in many different UL and Intertek (formerly OPL) listed fire containment assemblies of 1, 2, and 3-hr ratings.

Product Options:

- Safing 4.0 pcf, 2" or greater thickness, is available with or without a vapor retarding foil facing.
 - Safing 6.0 pcf, 1.5" or greater thickness, is available with or without a vapor retarding foil facing.
 - Recycled Content Options¹:
 - EPA Choice Fiber (US Government Buildings)..... Minimum 75%
 - Standard Fiber..... 70%
- ¹Recycled content options other than Standard must be specified at time of order.

Installation:

All firestopping insulation should be installed per the architectural specification or system specific test description. All firestopping Safing insulation should be installed per the listed assembly.

- Perimeter Installation: Safing™ insulation should be compression fitted between the slab edge and the FireSpan curtain wall insulation, leaving no voids.
- Penetration Application: Safing insulation should be cut slightly larger than the opening and compression fitted into the opening, leaving no voids.
- Construction Joint Application: Safing insulation should be compression fitted into the joint opening, leaving no voids.

Standard Sizes:

	Thickness*	Widths**	Lengths**
Safing 4.0 pcf	1" - 7"	16", 24", 36"	48", 60"
Safing 6.0 pcf	1" - 7"	16", 24", 36"	48", 60"
Tolerances	+1/4" - 1/8"	±1/8"	±1/2"

*Thicknesses are available in 1/2" increments. **Custom sizes are available upon request.

Technical Data:

Product Designation	Actual Density	Tested to ASTM C 518		Tested to ASTM E 84			
		"k" @ 75° [24°C] BTU.in/hr.sq. ft. °F	"R" value per inch of thickness***	Unfaced		Foil Faced	
				Flame Spread	Smoke Developed	Flame Spread	Smoke Developed
Safing	4.0 pcf	0.24	'R'= 4.2	0	0	25	0
Safing	6.0 pcf	0.24	'R'= 4.2	0	0	25	0

***R = thickness divided by 'k'

Fire-Containment Tests Per ASTM E 2307

Safing™ insulation is a critical component of any perimeter fire containment system. Thermafiber® has performed decades of testing in all of the containment systems listed below. For more complete test information, see SA707, THERMAFIBER Life-Safety Fire Containment Systems technical catalog or UL® and Intertek® (formerly OPL) Directories. For a full listing of containment systems visit www.thermafiber.com and click on Fire Rated Assemblies. UL Reference = TYPE SAF

- Aluminum Spandrel Curtain Wall Fire Containment
- Steel Stud-Framed/Gypsum Sheathing Curtain Wall Fire Containment
- Glass Spandrel Curtain Wall Fire Containment
- Granite Spandrel Curtain Wall Fire Containment
- Precast Concrete Spandrel

Standards Compliance:

Safing™ Insulation meets the following:

ASTM C 665	Non-corrosive, Type I, III
ASTM C 612	Type IA, IB, II
ASTM E 136	Rated Non-combustible per NFPA Standard 220
CAN/ULC S114	Complies
ASTM E 96	Unfaced, 50 Perms as tested
ASTM E 96	Foil Faced, 0.02 Perms as tested
ASTM C 1104	Absorbs less than 1% by volume
CAN/ULC S102	Flame Spread 0, Smoke Developed 0
ASTM E 814 or UL 1479	Safing Insulation used in conjunction with an approved fill, void, or cavity material sealant or other approved material in through – penetration firestop systems - Complies
UL 2079	Safing Insulation used in conjunction with an approved fill, void or cavity material in construction joint systems - Complies
CAN/ULC S115	Complies

Safing products are approved by: **New York City Board of Standards & Appeals** – (under BSA 39-74-SM & accepted by MEA-209-82-M, Vol. 4).

Thermafiber® Insolutions®:

Thermafiber offers industry leading technical and engineering assistance to architects, specifiers, and contractors. These services include CAD drawings, engineering judgments, LEED® Credit Information, product recommendations, and customized products. Contact our technical services department at 1-888-834-2371, or email technicalservice@owenscorning.com

For Further Information:

For additional information about these or other Thermafiber products contact us at 1-888-834-2371 or visit our website www.thermafiber.com.

Notice:

THERMAFIBER, Inc. shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. THERMAFIBER liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing within thirty (30) days from date it was or reasonably should have been discovered.

Submittal Approvals:

Job Name	
Contractor	Date



CERTIFICATE OF COMPLIANCE

Certificate Number 20151218-R10905
Report Reference R10905
Issue Date 2015-December-18

Issued to: Thermafiber Inc.
3711 Mill St
Wabash, IN 46992 USA

This is to certify that representative samples of Forming Materials
Forming Materials Certified for Canada

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: ANSI/UL 1479, "Fire Tests of Through-Penetration Firestops," ANSI/UL 2079, "Tests for Fire Resistance of Building Joint Systems," and ANSI/ASTM E2307 (2010), "Standard Test Method for Determining Fire Resistance of Perimeter Fire Barriers Using Intermediate-Scale, Multi-story Test Apparatus." CAN/ULC-S115 (2005), "Standard Method of Fire Tests of Firestop Systems."

Additional Information: See the UL Online Certifications Directory at www.ul.com/database for additional information

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Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program

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CERTIFICATE OF COMPLIANCE

Certificate Number 20151218-R10905
Report Reference R10905
Issue Date 2015-December-18

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

Type SAF mineral wool batts for use in Joint System Nos. BW-S-0029, FF-D-0002, FF-D-0011, FF-D-0013, FF-D-0014, FF-D-0015, FF-D-0016, FF-D-0017, FF-D-0019, FF-D-0022, FF-D-0023, FF-D-0025, FF-D-0026, FF-D-0028, FF-D-0073, FF-D-0074, FF-D-0096, FF-D-0097, FF-D-0109, FF-D-1001, FF-D-1002, FF-D-1003, FF-D-1004, FF-D-1006, FF-D-1007, FF-D-1008, FF-D-1010, FF-D-1015, FF-D-1016, FF-D-1020, FF-D-1021, FF-D-1024, FF-D-1025, FF-D-1027, FF-D-1036, FF-D-1039, FF-D-1040, FF-D-1041, FF-D-1042, FF-D-1045, FF-D-1047, FF-D-1098, FF-D-1125, FF-D-1158, FF-D-3003, FF-D-3004, FF-S-1031, FF-S-1033, FW-D-0001, FW-D-0004, FW-D-0007, FW-D-0009, FW-D-0010, FW-D-0011, FW-D-0012, FW-D-0014, FW-D-0017, FW-D-0018, FW-D-0020, FW-D-0021, FW-D-0023, FW-D-0024, FW-D-0027, FW-D-0050, FW-D-0051, FW-D-0067, FW-D-0068, FW-D-1001, FW-D-1002, FW-D-1003, FW-D-1005, FW-D-1006, FW-D-1007, FW-D-1009, FW-D-1010, FW-D-1016, FW-D-1017, FW-D-1020, FW-D-1024, FW-D-1033, FW-D-1035, FW-D-1037, FW-D-1038, FW-D-1039, FW-D-1040, FW-D-1044, FW-D-1047, FW-D-1055, FW-D-1070, FW-D-1089, FW-D-1092, FW-D-1093, FW-D-1102, FW-D-1103, FW-S-1016, FW-S-1019, HW-D-0001, HW-D-0002, HW-D-0006, HW-D-0009, HW-D-0013, HW-D-0016, HW-D-0017, HW-D-0020, HW-D-0021, HW-D-0022, HW-D-0023, HW-D-0025, HW-D-0026, HW-D-0027, HW-D-0028, HW-D-0029, HW-D-0030, HW-D-0031, HW-D-0034, HW-D-0038, HW-D-0039, HW-D-0040, HW-D-0042, HW-D-0043, HW-D-0044, HW-D-0045, HW-D-0046, HW-D-0047, HW-D-0049, HW-D-0050, HW-D-0051, HW-D-0052, HW-D-0054, HW-D-0055, HW-D-0058, HW-D-0059, HW-D-0062, HW-D-0064, HW-D-0067, HW-D-0069, HW-D-0072, HW-D-0073, HW-D-0075, HW-D-0079, HW-D-0086, HW-D-0087, HW-D-0088, HW-D-0089, HW-D-0091, HW-D-0092, HW-D-0099, HW-D-0100, HW-D-0101, HW-D-0102, HW-D-0103, HW-D-0104, HW-D-0105, HW-D-0106, HW-D-0107, HW-D-0108, HW-D-0118, HW-D-0122, HW-D-0123, HW-D-0127, HW-D-0128, HW-D-0131, HW-D-0136, HW-D-0137, HW-D-0139, HW-D-0140, HW-D-0143, HW-D-0146, HW-D-0149, HW-D-0152, HW-D-0153, HW-D-0154, HW-D-0156, HW-D-0157, HW-D-0160, HW-D-0166, HW-D-0168, HW-D-0170, HW-D-0171, HW-D-0172, HW-D-0173, HW-D-0174, HW-D-0177, HW-D-0178, HW-D-0185, HW-D-0186, HW-D-0187, HW-D-0188, HW-D-0190, HW-D-0192, HW-D-0199, HW-D-0200, HW-D-0201, HW-D-0204, HW-D-0205, HW-D-0206, HW-D-0208, HW-D-0211, HW-D-0218, HW-D-0220, HW-D-0221, HW-D-0222, HW-D-0246, HW-D-0248, HW-D-0252, HW-D-0253, HW-D-0258, HW-D-0259, HW-D-0263, HW-D-0265, HW-D-0278, HW-D-0279, HW-D-0297, HW-D-0298, HW-D-0299, HW-D-0335, HW-D-0336, HW-D-0337, HW-D-0338, HW-D-0354, HW-D-0357, HW-D-0358, HW-D-0359, HW-D-0363, HW-D-0365, HW-D-0366, HW-D-0367, HW-D-0377, HW-D-0378, HW-D-0380, HW-D-0381, HW-D-0384, HW-D-0385, HW-D-0388, HW-D-0389, HW-D-0391, HW-D-0395, HW-D-0396, HW-D-0404, HW-D-0405, HW-D-0406, HW-D-0407, HW-D-0408, HW-D-0409, HW-D-0410, HW-D-0411, HW-D-0412, HW-D-0413, HW-D-0414, HW-D-0415, HW-D-0416, HW-D-0417, HW-D-0441, HW-D-0442, HW-D-0447, HW-D-0456, HW-D-0457, HW-D-0460, HW-D-0465, HW-D-0467, HW-D-0468, HW-D-0478, HW-D-0479, HW-D-0524, HW-D-0531, HW-D-0536, HW-D-0538, HW-D-0539, HW-D-0540, HW-D-0542, HW-D-0546, HW-D-0547, HW-D-0548, HW-D-0549, HW-D-0553, HW-D-0560, HW-D-0561, HW-D-0562, HW-D-0564, HW-D-0566, HW-D-0567, HW-D-0568, HW-D-0569, HW-D-0570, HW-D-0571, HW-D-0572, HW-D-0577, HW-D-0578, HW-D-0580,



Bruce Mahrenholz, Director North American Certification Program

UL LLC

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CERTIFICATE OF COMPLIANCE

Certificate Number 20151218-R10905
Report Reference R10905
Issue Date 2015-December-18

Type SAF mineral wool batts for use in Joint System Nos. HW-D-0582, HW-D-0583, HW-D-0584, HW-D-0590, HW-D-0591, HW-D-0597, HW-D-0612, HW-D-0614, HW-D-0617, HW-D-0619, HW-D-0631, HW-D-0633, HW-D-0634, HW-D-0635, HW-D-0636, HW-D-0639, HW-D-0640, HW-D-0642, HW-D-0643, HW-D-0644, HW-D-0645, HW-D-0649, HW-D-0650, HW-D-0661, HW-D-0662, HW-D-0687, HW-D-0697, HW-D-0698, HW-D-0702, HW-D-0703, HW-D-0704, HW-D-0725, HW-D-0726, HW-D-0735, HW-D-0740, HW-D-0741, HW-D-0742, HW-D-0743, HW-D-0747, HW-D-0748, HW-D-0750, HW-D-1001, HW-D-1002, HW-D-1003, HW-D-1004, HW-D-1005, HW-D-1006, HW-D-1007, HW-D-1010, HW-D-1013, HW-D-1014, HW-D-1015, HW-D-1016, HW-D-1020, HW-D-1021, HW-D-1022, HW-D-1023, HW-D-1024, HW-D-1028, HW-D-1032, HW-D-1033, HW-D-1034, HW-D-1037, HW-D-1040, HW-D-1042, HW-D-1044, HW-D-1045, HW-D-1050, HW-D-1060, HW-D-1066, HW-D-1067, HW-D-1068, HW-D-1069, HW-D-1070, HW-D-1073, HW-D-1074, HW-D-1075, HW-D-1076, HW-D-1077, HW-D-1079, HW-D-1080, HW-D-1089, HW-D-1094, HW-D-1097, HW-D-1102, HW-D-1103, HW-D-1104, HW-D-1110, HW-S-0001, HW-S-0009, HW-S-0010, HW-S-0053, HW-S-0054, HW-S-0080, HW-S-0083, HW-S-1015, WW-D-0013, WW-D-0018, WW-D-0019, WW-D-0020, WW-D-0063, WW-D-1001, WW-D-1002, WW-D-0022, WW-D-0089, WW-D-0090, WW-D-0103, WW-D-0171, WW-D-0140, WW-D-0141, WW-D-1003, WW-D-1004, WW-D-1005, WW-D-1006, WW-D-1007, WW-D-1010, WW-D-1015, WW-D-1016, WW-D-1023, WW-D-1027, WW-D-1036, WW-D-1037, WW-D-1042, WW-D-1047, WW-D-1089, WW-D-1090, WW-D-1091, WW-D-1128, WW-D-1129, WW-S-0064, WW-S-1035.

TYPE SAF MINERAL WOOL BATTS FOR USE IN PERIMETER FIRE CONTAINMENT SYSTEM NOS. CW-D-1001, CW-D-1002, CW-D-1003, CW-D-1004, CW-D-1005, CW-D-1006, CW-D-1007, CW-D-1008, CW-D-1009, CW-D-1010, CW-D-1011, CW-D-1012, CW-D-1013, CW-D-1014, CW-D-1015, CW-D-1016, CW-D-1017, CW-D-1018, CW-D-1019, CW-D-1020, CW-D-1021, CW-D-1022, CW-D-1023, CW-D-1028, CW-D-1029, CW-D-1030, CW-D-2001, CW-D-2002, CW-D-2003, CW-D-2005, CW-D-2006, CW-D-2008, CW-D-2009, CW-D-2010, CW-D-2011, CW-D-2012, CW-D-2013, CW-D-2036, CW-D-2037, CW-D-2038, CW-D-2039, CW-D-2040, CW-D-2041, CW-D-2042, CW-D-2046, CW-D-2047, CW-D-2048, CW-D-2049, CW-D-2050, CW-D-2051, CW-D-2052, CW-D-2055, CW-D-2056, CW-D-2057, CW-D-2058, CW-D-2059, CW-D-2063, CW-D-2064, CW-D-2065, CW-D-2066, CW-S-0001, CW-S-0002, CW-S-0003, CW-S-0004, CW-S-1001, CW-S-1002, CW-S-1003, CW-S-1007, CW-S-1010, CW-S-1016, CW-S-1017, CW-S-1020, CW-S-1022, CW-S-1023, CW-S-1024, CW-S-1025, CW-S-1026, CW-S-2001, CW-S-2002, CW-S-2003, CW-S-2006, CW-S-2008, CW-S-2014, CW-S-2021, CW-S-2022, CW-S-2023, CW-S-2025, CW-S-2029, CW-S-2034, CW-S-2035, CW-S-2036, CW-S-2058, CW-S-2059, CW-S-2060, CW-S-2061, CW-S-2062, CW-S-2064, CW-S-2065, CW-S-2066.

TYPE SAF MINERAL WOOL BATTS FOR USE IN THROUGH-PENETRATION FIRESTOP SYSTEM NOS. C-AJ-1020, C-AJ-1081, C-AJ-3045, W-L-1027, W-L-1039, W-L-1064, W-L-1065, W-L-2023, W-L-2036, W-L-3023, W-L-3034, W-L-7001, W-L-7002.

TOPSTOP MINERAL WOOL DECK PLUGS TYPE SAF BATTS FOR USE IN JOINT SYSTEM NOS. HW-D-0001, HW-D-0002, HW-D-0020, HW-D-0022, HW-D-0034, HW-D-0039, HW-D-0043, HW-D-0086, HW-D-0088, HW-D-0160, HW-D-0161, HW-D-0456, HW-D-0612, HW-D-0644.



Bruce Mahrenholz, Director North American Certification Program

UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at <http://ul.com/aboutul/locations/>



Material Information Statement

Articles

According to Regulation (EC) 1907/2006, Article 32
Revision: 11.08.2021

Version: 20

1 Identification of the articles and of the company undertaking

1.1 Product identifier

Trade name:

- Firestop Bandage CFS-B / 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
- Firestop Coated Board CFS-CT B / 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 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 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



July 19, 2021

To Whom It May Concern:

Re: **Hilti Mineral Wool-LEED Information**

Item Number:

236993

The Hilti Mineral Wool is manufactured in Wabash, Indiana.

The post-consumer recycled content in the Hilti Mineral Wool is 0%. The pre-consumer recycled content in the Hilti Mineral Wool is 90%. There is no detectable VOC content in this product.

Hilti Mineral Wool is not regulated as a hazardous waste by the Federal EPA Standards. The regulations for the disposal of non-regulated industrial waste can vary from state to state and even city to city. For this reason, you should consult your local and state regulatory agencies for direction on disposal.

Please feel free to contact me at (918) 872-3704 if you have questions.

Sincerely,

Jerry Metcalf MPH, CHMM
Sr. Manager, Safety/Environmental
Hilti Inc.
918 872 3704
jerry.metcalf@hilti.com

Rev. Date: 7/16/21

The manufacturing plant location on this certificate has been provided for LEEDS reporting purposes only. It should never be used for Country of Origin certification or a representation of compliance/non-compliance with Buy American or Buy America requirements, as those requirements differ.

The manufacturing plant location(s) identified on the certificate represent standard Hilti catalog products only. "Specially" produced non-catalog Hilti products may have differing manufacturing plant locations.

Contact your Hilti representative in cases of "specially" produced products for a custom LEEDS certificates.

Hilti, Inc.
5400 South 122nd East Avenue
Tulsa, OK 74146

1-800-879-8000
www.hilti.com