

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.*

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Hilti Firestop
Saving lives
through innovation
and education

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Classified by
Underwriters Laboratories, Inc.
to UL 2079 and CAN/ULC-S115

System No. HW-D-1009

Assembly Rating — 2 Hr

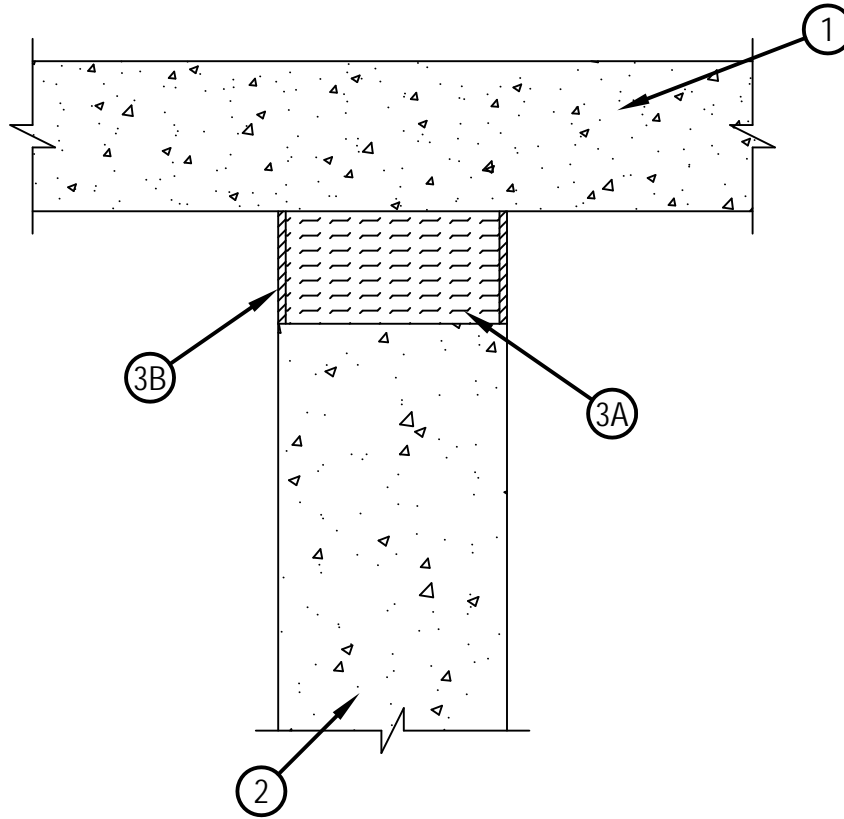
L Rating at Ambient — Less than 1 CFM/Lin Ft

L Rating at 400 F — Less than 1 CFM/Lin Ft

Nominal Joint Width — 3-3/4 in.

Class II Movement Capabilities — 7% Compression Or Extension

HWD 1009



1. Floor Assembly — Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) structural concrete.
2. Wall Assembly — Min 5 in. thick reinforced lightweight or normal weight (100-150 pcf) structural concrete. Wall may also be constructed of any UL Classified Concrete Blocks*.
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
3. Joint System — Max separation between bottom of floor and top of wall (at time of installation of joint system) is 3-3/4 in. The joint system is designed to accommodate a max 7 percent in compression or extension from its installed width. The joint system shall consist of the following:
 - A. Forming Material — Min 4 pcf mineral wool batt insulation installed in joint opening as a permanent form. Pieces of batt cut to min width of 4 in. and installed edge-first into joint opening, parallel with joint direction, such that batt sections are compressed min 42 percent in thickness and that the compressed batt sections are recessed from both surfaces of the wall as required to accommodate the required thickness of fill material. Adjoining lengths of batt to be tightly-butted with butted seams spaced min 24 in. apart along the length of the joint.
FIBREX INSULATIONS INC — FBX Safing Insulation
 - B. Fill, Void or Cavity Material* — Sealant — Min 1/2 in. thickness of fill material applied within the joint, flush with both surfaces of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF
HILTI INC — CP606 Flexible Firestop Sealant

*Bearing the UL Classification Mark



Hilti Firestop Systems

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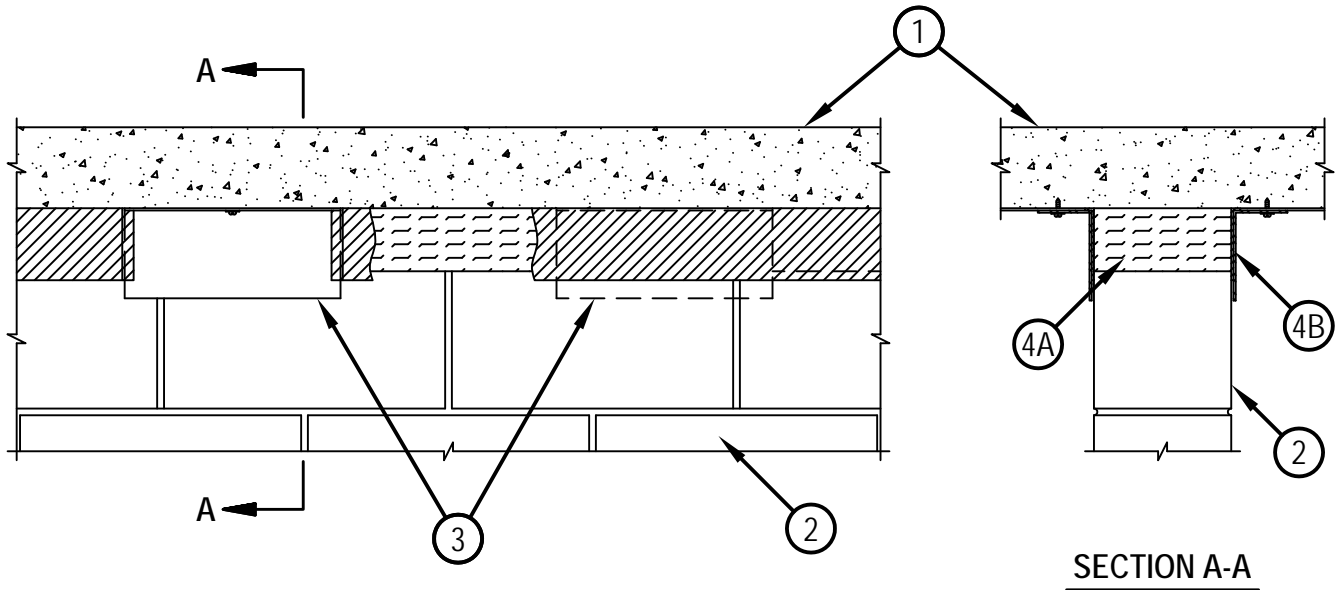
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System No. HW-D-1045

Assembly Rating — 2 Hr
Nominal Joint Width — 3-1/2 In.

Class II Movement Capabilities — 14% Compression and Extension

HWD 1045



1. Floor Assembly — Min 4-1/2 in. thick steel reinforced lightweight or normal weight (100-150 pcf) structural concrete.
2. Wall Assembly — Min 8 in. thick steel reinforced lightweight or normal weight (100-150 pcf) structural concrete. Wall may also be constructed of any UL Classified Concrete Blocks*.
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
3. Steel Angles — Nom 5 in. by 3 in. by 12 MSG (or heavier) steel angles, max 12 in. long, staggered max 24 in. OC on opposite sides of wall with 3 in. leg fastened to concrete floor assembly.
4. Joint System — Max separation between bottom of floor units and top of concrete wall at time of installation is 3-1/2 in. The joint system is designed to accommodate a max 14 percent compression or extension from its installed width. The joint system shall consist of the following:
 - A. Forming Material* — Nominal 4 in thick pieces of nominal 4 pcf forming material, min 8 in. wide, shall be compressed 50 percent in thickness and installed edge first into joint opening between bottom of floor assembly and top of concrete wall.
THERMAFIBER INC — Type SAF
 - B. Fill, Void or Cavity Material* - Sealant — A 1/8 in. wet thickness of fill material sprayed or trowled on each side of wall to completely cover mineral wool forming material and to overlap a min 1/2 in. onto steel angles, concrete floor assembly and concrete wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF
HILTI INC — CP672 Firestop Spray or CFS-SP WB Firestop Joint Spray

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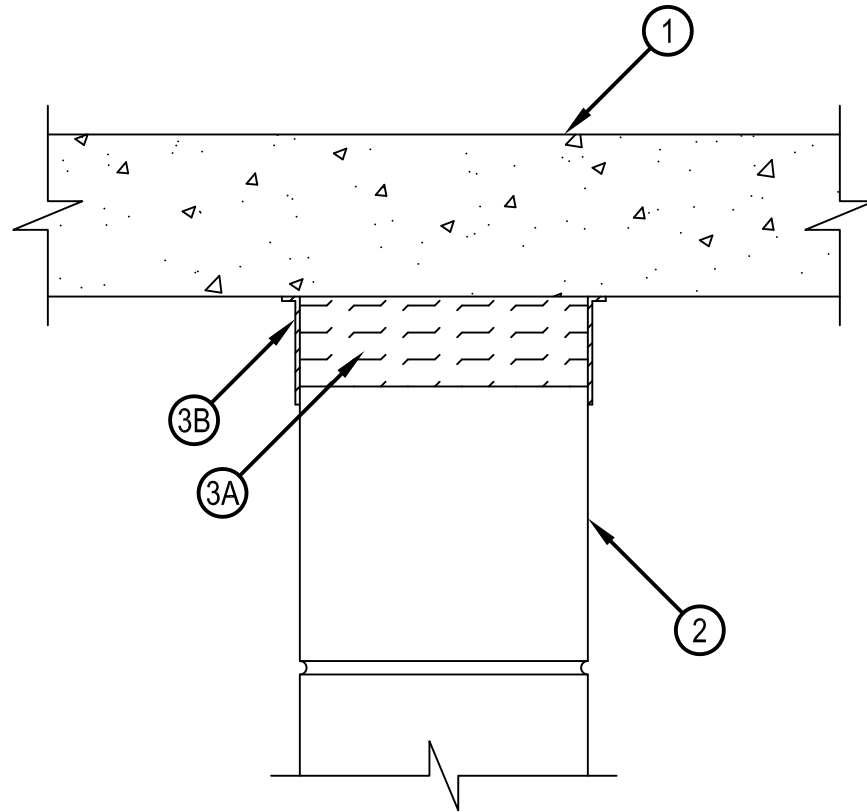
System No. HW-D-1070

Assembly Rating — 2 Hr

Nominal Joint Width — 2-1/2 In.

Class II Movement Capabilities — 40% Compression or Extension

HWD 1070



1. Floor Assembly — Min 4-1/2 in. (114 mm) thick steel-reinforced lightweight or normal weight (100-150 pcf, 1600-2400 kg/m³) structural concrete.
2. Wall Assembly — Min 6 in. (152 mm) thick steel-reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) structural concrete. Wall may also be constructed of any UL Classified Concrete Blocks*.

See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

3. Joint System — Max width of joint (at time of installation of joint system) is 2-1/2 in. (64 mm). The joint system is designed to accommodate a max 40 percent compression or extension from its installed width. The joint system shall consist of the following:
 - A. Forming Material* — Min 4 pcf (64 kg/m³) mineral wool batt insulation installed in joint opening as a permanent form. Batt cut to width equal to thickness of wall, compressed 50 percent in thickness and installed edge-first into joint opening such that the compressed batt sections are flush with both surfaces of wall. Adjoining lengths of batt to be tightly butted with butted seams spaced min 48 in. (1219 mm) apart along the lengths of the joint.
ROCK WOOL MANUFACTURING CO — Delta Board
THERMAFIBER INC — Type SAF
 - B. Fill, Void or Cavity Material* — Min 1/16 in. (1.6 mm) dry thickness (min 1/8 in. or 3.2 mm wet thickness) of fill material sprayed on each side of the wall to completely cover mineral wool forming material and to overlap a min of 1/2 in. (13 mm) onto wall and floor surfaces on both sides of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP672 Firestop Spray or CFS-SP WB Firestop Joint Spray

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



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System No. WW-D-0017

Assembly Rating — 2 Hr

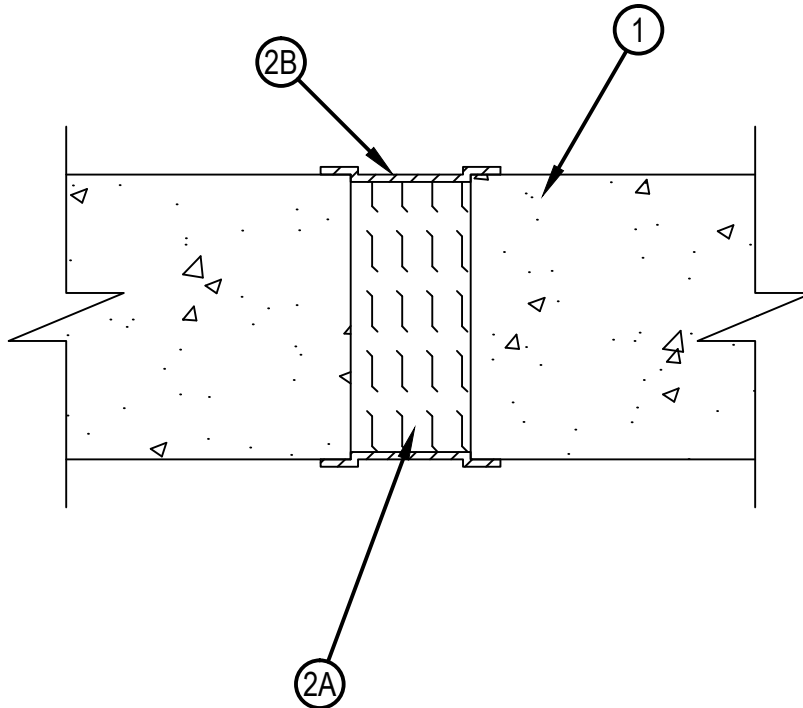
Nominal Joint Width — 2 In.

L Rating At Ambient — Less Than 1 CFM/Lin Ft

L Rating At 400°F — Less Than 1 CFM/Lin Ft

Class II Movement Capabilities — 12.5% Compression or Extension

WWD 0017



1. Wall Assembly — Min 4-1/2 in (114 mm) thick steel-reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) structural concrete. Wall may also be constructed of any UL Classified Concrete Blocks*.
2. Joint System — Max width of joint (at time of installation of joint system) is 2 in. (51 mm). The joint system is designed to accommodate a max 12.5 percent compression or extension from its installed width. The joint system shall consist of the following:
 - A. Forming Material* — Min 4 pcf (64 kg/m³) mineral wool batt insulation installed in joint opening as a permanent form. Batt cut to min width of 4-1/4 in. (108 mm) and installed cut edge-first into joint opening, parallel with joint direction, such that batt sections are compressed min 50 percent in thickness and such that the compressed batt sections are recessed from both surfaces of wall to accommodate the required thickness of fill material. Adjoining lengths of batt to be tightly butted with butted seams spaced min 48 in. (1.2 m) apart along the lengths of the joint.
ROCK WOOL MANUFACTURING CO — Delta Board
 - B. Fill, Void or Cavity Material* — 1/16 in. (1.6 mm) dry thickness (min 1/8 in. or 3.2 mm wet thickness) of fill material applied within the joint, flush with both surfaces of wall and lapping 1/2 in. (13 mm) onto surfaces of wall on both sides of wall assembly.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP672 Firestop Spray or CFS-SP WB Firestop Joint Spray

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System No. WW-D-0064

Assembly Rating — 3 Hr

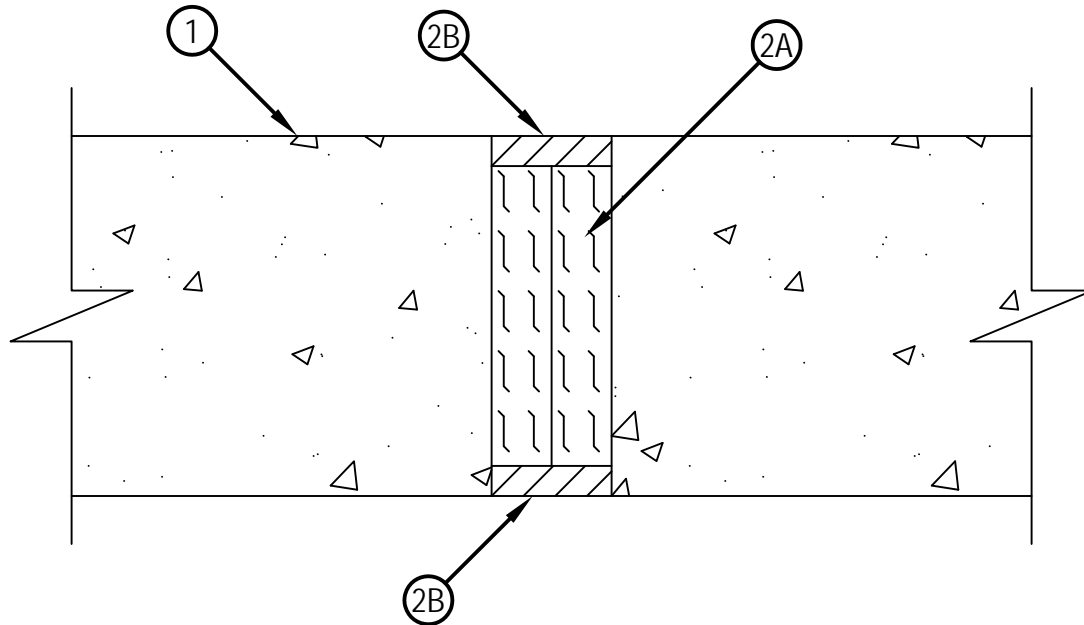
L Rating at Ambient — Less than 1 CFM/Lin Ft

L Rating at 400 F — Less than 1 CFM/Lin Ft

Nominal Joint Width — 2 in.

Class II Movement Capabilities — 6% Compression Or Extension

WW-D-0064



1. Wall Assembly — Min 6 in. (152 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) structural concrete. Walls may also be constructed of any UL Classified Concrete Blocks*.
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Joint System — Max width of joint (at time of installation of joint system) is 2 in. (51 mm). The joint system is designed to accommodate a max 6 percent compression or extension from its installed width. The joint system shall consist of the following:
 - A. Forming Material* — Min 4 pcf (64 kg/m³) mineral wool batt insulation installed in joint opening as a permanent form. Pieces of batt cut to min width of 5 in. (127 mm) and installed edge-first into joint opening, parallel with joint direction, such that batt sections are compressed min 50 percent in thickness and such that the compressed batt sections are recessed from both surfaces of the wall as required to accommodate the required thickness of fill material. Adjoining lengths of batt to be tightly-butted with butted seams spaced min 24 in. (610 mm) apart along the length of the joint.
FIBREX INSULATIONS INC — FBX Safing Insulation
 - B. Fill, Void or Cavity Material* — Sealant — Min 1/2 in. (13 mm) thickness of fill material applied within the joint, flush with both surfaces of the wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF
HILTI INC — CP606 Flexible Firestop Sealant

*Bearing the UL Classification Mark



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May 18, 2009



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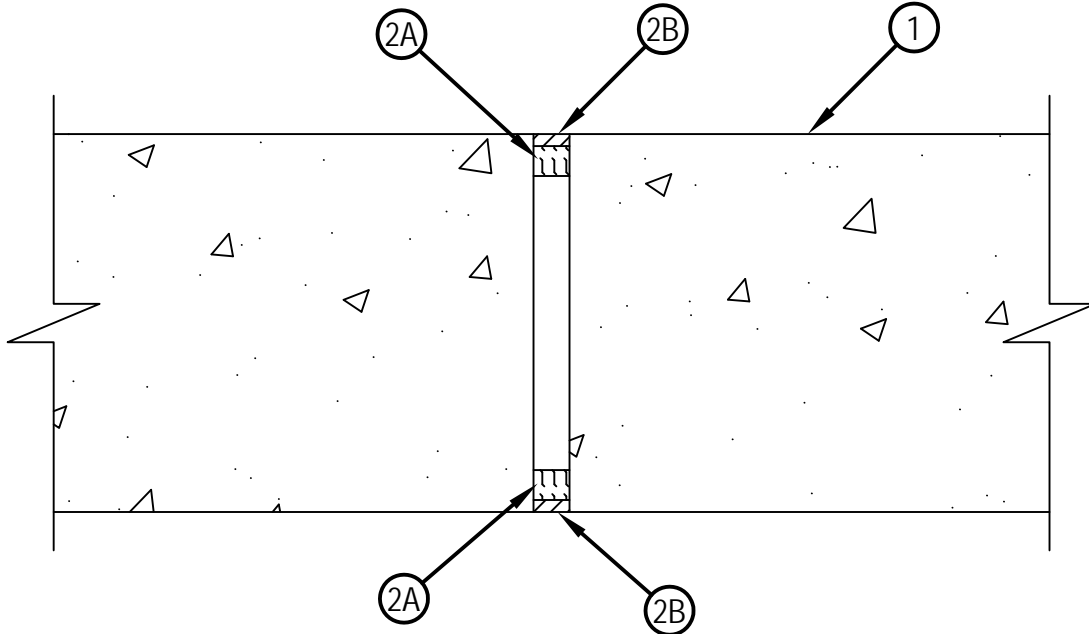
System No. WW-D-0082

Assembly Rating — 2 Hr

Nominal Joint Width — 3/4 in.

Class II Movement Capabilities — 17% Compression Or Extension

WW-D-0082



1. Wall Assembly — Min 7-7/8 in. (194 mm) thick steel reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*.

See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufactures.

2. Joint System — Max width of joint (at time of installation of joint system) is 3/4 in. (19 mm). The joint system is designed to accommodate a max 17 percent compression or extension from its installed width. The joint system consists of a forming material and a fill material between the wall sections, as follows:

A. Forming Material* - Strips — Nom 5/8 in. (16 mm) wide precut mineral wool strips. The strips are compressed 25 percent and firmly packed, cut edge first, into the gap between the walls on both sides of the wall assembly. Adjoining lengths of strip to be tightly-butted with butted seams spaced min 24 in. (610 mm) apart along the length of the joint. Forming material to be recessed from wall surfaces to accommodate fill material.

HILTI CONSTRUCTION CHEMICALS, DIV OF
HILTI INC — CP 767 Speed Strips

A1. Forming Material* — As an alternate to Item 2A, min 4 pcf (64 kg/m³) density mineral wool batt forming material shall be cut into min 5/8 in. (16 mm) wide by 1 in. (25 mm) thick strips to fill the gap between the walls on both sides of the wall assembly. The strips are compressed 25 percent and firmly packed, cut edge first, into the gap between the walls on both sides of the wall assembly. Adjoining lengths of strip to be tightly-butted with butted seams spaced min 24 in. (610 mm) apart along the length of the joint. Forming material to be recessed from wall surfaces to accommodate fill material.

FIBREX INSULATIONS INC — FBX Safing Insulation

B. Fill, Void or Cavity Material* - Sealant — Min 1/4 in. (6 mm) thickness of fill material applied within the joint, flush with both surfaces of the wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF
HILTI INC — CP606 Sealant

*Bearing the UL Classification Mark



Hilti Firestop Systems

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April 15, 2009

Firestop Joint Spray (CFS-SP WB)

Product description

- A sprayable fire-rated mastic for construction joints where maximum movement is required

Product features

- Sprayable or apply by brush
- Maximum flexibility, meets 500 cycle requirements (Class II and III Approval) (ASTM E 1966 and UL 2079)
- Quick and easy installation with the Titan 600 or 1100 Sprayers can help save you time and money
- Contains no halogens, solvents or asbestos
- Water based formulation so spills and over-spray clean up quickly and easily
- Paintable
- Meets LEED™ requirements for indoor environmental quality credit 4.1 Low Emitting Materials, Sealants and Adhesives and 4.2 Paints and Coatings

Areas of application

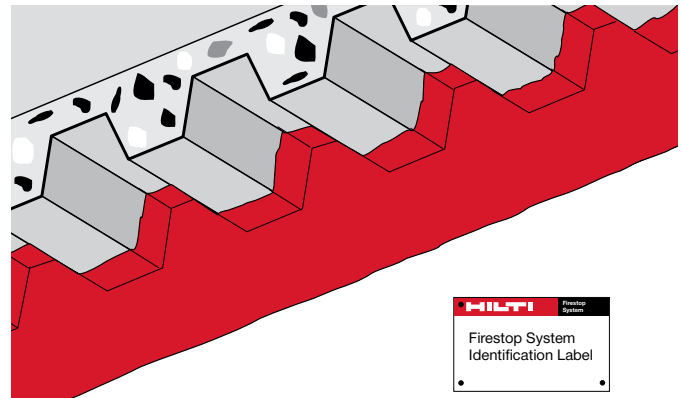
- Top-of-wall joints
- Curtain wall/edge of slab
- Expansion joints

For use with

- Concrete, masonry and gypsum wall assemblies
- Wall and floor/wall assemblies rated up to 4 hours

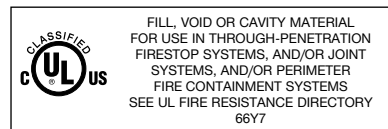
Examples

- Where a gypsum wall assembly meets the underside of a metal or concrete deck
- Where a concrete floor assembly meets with non-rated exterior wall (concrete, glass, etc.)
- Where two concrete floor/wall assemblies meet



Technical Data*	CFS-SP WB
Density	Approx. 10.8 lb/gal (1.3 g/cm³)
Color	Available in red, white and gray**
Application temperature	39°F to 104°F (4°C to 40°C)
Temperature resistance	-40°F to 176°F (-40°C to 80°C)
Consistency	Sprayable liquid
Chemical basis	Acrylic-water-based-dispersion
Curing time	Approx. 24 hours @ 73°F, 50% humidity for 1/8" depth
Average volume shrinkage (ASTM C1241)	51.1%
Ph-value	Approx. 8-9
Movement capability	Up to 50%
Surface burning characteristics (CAN/ULC-S102)	Flame spread: 15 Smoke development: 10
Sound transmission classification (ASTM E 90-99)	59 (per tested construction type)
Tested in accordance with	
<ul style="list-style-type: none"> • UL 2079 • UL 1479 	<ul style="list-style-type: none"> • ASTM E 1966 • ASTM E 814 • ASTM E 84 • ASTM E 2337 • ASTM E 2307

*At 73°F (23°C) and 50% relative humidity
 **Gray color requires six (6) weeks lead time



Installation instructions for Firestop Joint Spray CFS-SP WB

Notice

- Before handling, read Material Safety Data Sheet and product label for safe usage and health information.
- Instructions below are general guidelines — always refer to the applicable drawing in the UL Fire Resistance Directory or Hilti Firestop Systems Guide for complete installation information

Opening

1. Clean the opening. Surfaces to which Firestop Joint Spray will be applied should be cleaned of loose debris, dirt, oil, wax and grease. The surface should be moisture and frost free.

Application of Firestop Joint Spray

2. Mineral wool packing: Install the prescribed back filling material type and depth to obtain desired rating.
3. Application of Firestop Joint Spray: Apply Firestop Joint Spray to the required depth in order to obtain the desired rating. Make sure Firestop Joint Spray contacts all surfaces and overlaps beyond all surrounding surfaces (Refer to UL System). Titan Sprayers have been successful in applying Firestop Joint Spray. Hilti recommends the use of the Titan 600 (for application temperatures above 50°F) or

Firestop Joint Spray may also be brushed on with a paint brush. Contact Hilti Technical Support for more information.

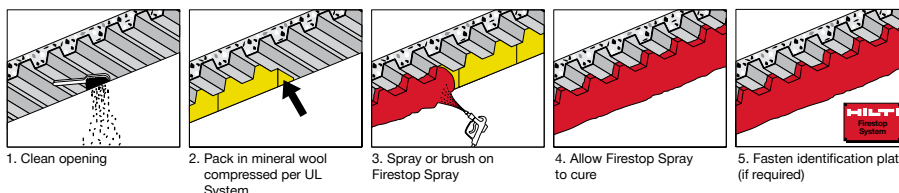
4. Curing time: Allow approx. 24 hours for typical application thickness (@ 73°F / 23°C) 50% humidity for 1/8" depth for the Firestop Joint Spray to fully cure.
5. Identification: For maintenance reasons all Firestop Joint Spray applications can be permanently marked with an identification plate and fastened in a visible position next to the seal.

Not for use

- In areas immersed in water
- On hot surfaces (above 176°F)

Storage

- Store only in the original packaging at temperatures 39°F to 77°F (4°C to 25°C)
- Observe expiration date on package



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CERTIFICATE OF COMPLIANCE

Certificate Number 20170203 – R13240
Report Reference R13240 - 20100527
Issue Date 2017-FEBRUARY-03

Issued to: HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC
7250 Dallas Pky, Legacy Tower Suite 1000
Plano, TX 75024 USA

This is to certify that representative samples of Fill, Void or Cavity Materials
CFS-SP WB Firestop Joint Spray

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," ANSI/UL 2079, "Tests for Fire Resistance of Building Joint Systems," ANSI/ASTM E2307, "Standard Test Method for Determining Fire Resistance of Perimeter Fire Barriers Using Intermediate-Scale, Multi-story Test Apparatus" and CAN/ULC-S115, "Standard Method of Fire Tests of Firestop Systems."

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

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

Look for the UL Certification Mark on the product.



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/>



1 Identification

- **Product identifier**
- **Trade name:**
CP 672
Hilti Firestop Joint Spray CFS-SP WB
- **Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.
- **Application of the substance / the mixture** Construction chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 Hilti, Inc.
 5400 South 122nd East Ave.
 US-Tulsa, OK 74146
 Phone: (800) 879-8000
 Fax: (800) 879-7000
 Español: (800) 879-5000
- **Information department:**
 chemicals.hse@hilti.com
 see section 16
- **Emergency telephone number:**
 Tox Info Suisse - 24 h Service
 Tel.: 0041 / 44 251 51 51 (international)
- Chem-Trec
 Tel.: 1 800 424 9300

2 Hazard(s) identification

- **Classification of the substance or mixture**
 Repr. 2 H361 Suspected of damaging fertility or the unborn child.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** not applicable
- **Classification system:**
 The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.
- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS08

- **Signal word** Warning
- **Hazard-determining components of labeling:**
 Zinc borate
 [Zn4B12O22*7H2O]
- **Hazard statements**
 H361 Suspected of damaging fertility or the unborn child.
- **Precautionary statements**
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
- **Classification system**
- **NFPA ratings (scale 0-4)**



Health = 1
 Fire = 0
 Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Watery, intumescent fire prevention coating

Dangerous components:

138265-88-0	Zinc borate [Zn4B12O22*7H2O]	Xn R63; N R50/53-51 Repr. Cat. 3	<2.5%
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(Contd. on page 2)

(Contd. of page 1)

· **Additional information** For the wording of the listed risk phrases refer to section 16.

4 First-aid measures

- **Description of first aid measures**
- **General information** No special measures required.
- **After inhalation** Take affected persons into fresh air and keep quiet.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing** Seek immediate medical advice.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents** CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide (CO)
Carbondioxide (CO₂)
- **Advice for firefighters**
- **Protective equipment:** Ensure adequate ventilation

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Wear protective clothing.
Particular danger of slipping on leaked/spilled product.
- **Environmental precautions:** Do not allow product to reach sewage system or any water course.
- **Methods and material for containment and cleaning up:**
Pick up mechanically.
Dispose contaminated material as waste according to item 13.
- **Reference to other sections**
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** keep containers securely closed and dry, store at 5 - 25 °C / 41 - 77 °F
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Protect from frost.
- **Storage class** 12
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
The usual precautionary measures for handling chemicals should be followed.
Avoid contact with the eyes and skin.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not necessary if room is well-ventilated.

(Contd. on page 3)

US

(Contd. of page 2)

Protection of hands:


Protective gloves.

EN 374

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

 · **Material of gloves** Nitrile rubber, NBR

 · **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

 · **Eye protection:**


Tightly sealed goggles.

EN 166 + EN 170

 · **Body protection:**


Protective work clothing.

9 Physical and chemical properties

Information on basic physical and chemical properties
General Information
Appearance:

· Form:	Fluid
· Color:	Various colors
· Odor:	Characteristic

Change in condition

· Melting point/Melting range:	Not determined.
· Boiling point/Boiling range:	undetermined

 · **Flash point:** Not applicable

 · **Auto igniting:** Product is not selfigniting.

 · **Danger of explosion:** Product does not present an explosion hazard.

 · **Density:** Not determined

Solubility in / Miscibility with

 · **Water:** Not miscible or difficult to mix

 · **Other information** VOC Content: 34 g/l (EPA Method 24)

10 Stability and reactivity

Reactivity
Chemical stability

 · **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

 · **Possibility of hazardous reactions** No dangerous reactions known

 · **Conditions to avoid** No further relevant information available.

 · **Incompatible materials:** No further relevant information available.

 · **Hazardous decomposition products:** No dangerous decomposition products known

11 Toxicological information

Information on toxicological effects
Acute toxicity:
Primary irritant effect:

 · **on the skin:** No irritant effect.

 · **on the eye:** No irritating effect.

 · **Sensitization:** No sensitizing effects known.

Additional toxicological information:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

(Contd. on page 4)

US

(Contd. of page 3)

 · **NTP (National Toxicology Program)**

None of the ingredients is listed

 · **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:** Not determined
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
Do not allow product to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

 · **European waste catalogue:**

08 04 10 waste adhesives and sealants other than those mentioned in 08 04 09

- **Uncleaned packagings:**
- **Recommendation:**
Disposal must be made according to official regulations.
Dispose of packaging according to regulations on the disposal of packagings.

14 Transport information

- | | |
|----------------------------------------------------------------------------------|------------------------------------------------------|
| · UN-Number | |
| · DOT, ADR, IMDG, IATA | Void |
| · UN proper shipping name | |
| · DOT, ADR, IMDG, IATA | Void |
| · Transport hazard class(es) | |
| · DOT, ADR, IMDG, IATA | |
| · Class | Void |
| · Packing group | |
| · DOT, ADR, IMDG, IATA | Void |
| · Environmental hazards: | |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

 · **Section 355 (Extremely hazardous substances):**

None of the ingredients is listed.

 · **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

 · **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

(Contd. on page 5)

(Contd. of page 4)

· **Proposition 65:**· **Chemicals known to cause cancer:**

28553-12-0 | di-"isononyl" phthalate

· **Carcinogeny categories**· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **Chemical safety assessment:** not required.**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R51 Toxic to aquatic organisms.

R63 Possible risk of harm to the unborn child

· **Department issuing SDS:**

Hilti Corporation

Business Unit Chemicals

Quality/Safety/Environment

FL-9494 Schaan / Liechtenstein

chemicals.hse@hilti.com

Tel.: +423 234 3004

FAX.: +423 234 3462

· **Date of preparation / last revision** 05/18/2015 / 3· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

Repr. 2: Reproductive toxicity, Hazard Category 2

· *** Data compared to the previous version altered.**

US



August 26, 2015

To Whom It May Concern:

Re: **Hilti CFS-SP WB Firestop Joint Spray – LEED Information**

Item Numbers:

430792
430793
430802

The Hilti CFS-SP WB Firestop Joint Spray is manufactured in Florida.

The CP 572 pail is made of polyethylene and can be completely recycled.

There is no post-consumer or post-industrial content in CFS-SP WB Firestop Joint Spray and it cannot be recycled. The CFS-SP WB does not contain any Rapidly Renewable Materials.

The VOC content for CFS-SP WB Firestop Joint Spray is 34 g/l.

CFS-SP WB Firestop Joint Spray is not regulated as 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: 8/14/15

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

Flexible Firestop Sealant (CP 606)

Product description

- An acrylic based firestop sealant that provides movement capability in fire rated joints and seals through-penetrations applications

Product features

- Silicone free
- Halogen, asbestos and solvent free
- Paintable
- Tested up to 33% movement with 500 cycles in accordance to UL 2079 and ASTM 1966
- Smoke and fume resistant
- Easy clean up with water
- Single component systems available
- Meets LEED™ requirements for indoor environmental quality credit 4.1 Low Emitting Materials, Sealants and Adhesives and 4.2 Paints and Coatings

Areas of application

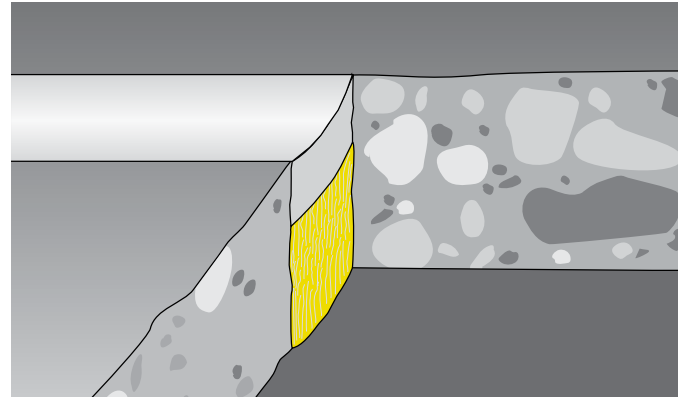
- Sealing construction/expansion joints
- Top-of-wall joints
- Metal pipes
- Cable bundles
- HVAC penetrations

For use with

- Various base materials such as masonry, concrete, gypsum, etc.
- Wall and floor assemblies rated up to 3 hours

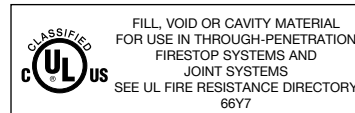
Examples

- Where a gypsum wall assembly meets the underside of a metal or concrete deck
- Sealing expansion joints to impede the passage of fire, smoke and toxic fumes
- Sealing around HVAC penetrations through fire-rated assemblies



Technical Data*	CP 606
Chemical basis	Acrylic based firestop sealant
Color	Available in red, white and gray
Application temperature	40°F to 104°F (5°C to 40°C)
Skin-forming time	Approx. 15 min
Curing time	Approx. 3 mm / 3 days
Average volume shrinkage (ASTM C1241)	22.2%
Movement capability	Approx. 10%
Temperature resistance	-22°F to 176°F (-30°C to 80°C)
Surface burning characteristics (ASTM E 84-96)	Flame Spread: 10 Smoke Development: 0
Sound transmission classification (ASTM E 90-99)	56 (Relates to specific construction)
Tested in accordance with	<ul style="list-style-type: none"> • UL 2079 • ASTM E 814 • ASTM E 1966 • ASTM E 84 • UL 1479 • ASTM G21

*At 73°F (23°C) and 50% relative humidity



Installation instructions for CP 606

Notice

- Before handling, read Material Safety Data Sheet and product label for safe usage and health information.
- Instructions below are general guidelines — always refer to the applicable drawing in the UL Fire Resistance Directory or Hilti Firestop Systems Guide for complete installation information
- The use of backing material is recommended to control the sealant depth and help ensure assembly seal is complete

Opening

1. Clean the opening. Surfaces to which CP 606 will be applied should be cleaned of loose debris, dirt, oil, wax and grease. The surface should be moisture and frost free.

Application of firestop

2. Insert fill of mineral wool or backer (as required).
3. Apply firestop over backer.
4. Smooth firestop sealant with a trowel before the skin forms. Once cured, CP 606 can only be removed mechanically.
5. For maintenance reasons, a penetration seal can be

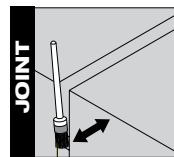
permanently marked with an identification plate and fastened in a visible position next to the seal.

Not for use

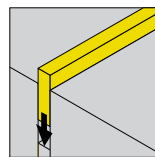
- On areas immersed in water

Storage

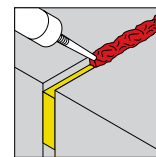
- Store only in the original packaging in a location protected from moisture at a temperature of 40°F to 77°F (5°C to 25°C)
- Observe expiration date on package



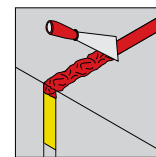
1. Clean opening



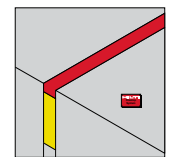
2. Insert backing material compressed per UL System



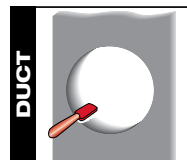
3. Apply CP 606



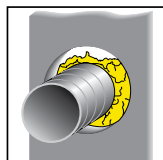
4. Smooth CP 606



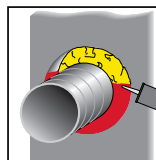
5. Fasten identification plate (if required)



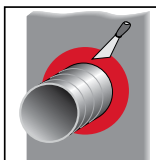
1. Clean opening



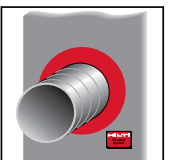
2. Insert backing material



3. Apply CP 606



4. Smooth CP 606



5. Fasten identification plate (if required)

Hilti. Outperform. Outlast.

CERTIFICATE OF COMPLIANCE

Certificate Number 20160930-R13240
Report Reference R13240
Issue Date 2016-September-30

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

CP 606 Sealant for use in Through-Penetration Firestop, Joint in wall and partition Systems as currently described 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,"
ANSI/UL 2079, "Tests for Fire Resistance of Building Joint Systems,"
CAN/ULC-S115, "Standard Method of Fire Tests of Firestop Systems."

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

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

Look for the UL Certification Mark on the product.



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/>



Hilti Firestop Acrylic Sealant CFS-S ACR; CP 606

Safety Data Sheet

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

Date of issue: 01/07/2016


Revision date: 01/07/2016

Supersedes: 01/07/2016

Version: 4.2

SECTION 1: Identification

1.1. Identification

Product form	Mixture
Name	Hilti Firestop Acrylic Sealant CFS-S ACR; CP 606
Product code	BU Chemicals
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
------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------

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

Hilti Firestop Acrylic Sealant CFS-S ACR; CP 606

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

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	Recover mechanically the product.
-------------------------	-----------------------------------

6.4. Reference to other sections

For further information refer to section 13.

Hilti Firestop Acrylic Sealant CFS-S ACR; CP 606

Safety Data Sheet

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	Wear personal protective equipment.
Hygiene measures	Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	Keep cool. Store in a dry place.
Storage temperature	41 - 77 °F

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Personal protective equipment Protective clothing. Safety glasses. Gloves.



Hand protection	Protective gloves. EN 374.
Eye protection	Safety glasses. EN 166. EN 170.
Skin and body protection	Wear suitable protective clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Pasty.
Colour	red white Grey
Odour	characteristic
Odour threshold	Not determined
pH	≈ 9 Not applicable
Melting point	Not applicable
Freezing point	No data available
Boiling point	No data available
Flash point	Not applicable
Relative evaporation rate (butylacetate=1)	No data available
Flammability (solid, gas)	No data available
Explosive limits	No data available
Explosive properties	No data available
Oxidising properties	No data available
Vapour pressure	No data available
Relative density	No data available
Relative vapour density at 20 °C	No data available
Density	1.6 g/cm ³
Molecular mass	Not determined
Solubility	No data available

Hilti Firestop Acrylic Sealant CFS-S ACR; CP 606

Safety Data Sheet

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

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

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

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: ≈ 9 Not applicable
Serious eye damage/irritation	Not classified pH: ≈ 9 Not applicable
Respiratory or skin sensitisation	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified

Hilti Firestop Acrylic Sealant CFS-S ACR; CP 606

Safety Data Sheet

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

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	The product is not considered harmful to aquatic organisms or 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 ecological damage caused by 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

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Proper Shipping Name (ADR)	Not applicable
Proper Shipping Name (IMDG)	Not applicable
Proper Shipping Name (IATA)	Not applicable
Proper Shipping Name (ADN)	Not applicable
Proper Shipping Name (RID)	Not applicable

14.3. Transport hazard class(es)

ADR
Transport hazard class(es) (ADR) Not applicable

IMDG
Transport hazard class(es) (IMDG) Not applicable

IATA
Transport hazard class(es) (IATA) Not applicable

ADN
Transport hazard class(es) (ADN) Not applicable

RID

Hilti Firestop Acrylic Sealant CFS-S ACR; CP 606

Safety Data Sheet

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

Transport hazard class(es) (RID) Not applicable

14.4. Packing group

Packing group (ADR)	Not applicable
Packing group (IMDG)	Not applicable
Packing group (IATA)	Not applicable
Packing group (ADN)	Not applicable
Packing group (RID)	Not applicable

14.5. Environmental hazards

Dangerous for the environment	No
Marine pollutant	No
Other information	No supplementary information available

14.6. Special precautions for user

- Overland transport

- Transport by sea

No data available

- Air transport

No data available

- Inland waterway transport

Carriage prohibited (ADN)	No
Not subject to ADN	No

- 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

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

Hilti Firestop Acrylic Sealant CFS-S ACR; CP 606	
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

No additional information available

Hilti Firestop Acrylic Sealant CFS-S ACR; CP 606

Safety Data Sheet

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

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 01/07/2016

HMIS III 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

**Speed Strips
(CP 767)**

**Speed Plugs
(CP 777)**

Product description

- CP 777: Pre-formed mineral wool plugs for 1.5", 2" and 3" decks
- CP 767: Pre-formed mineral wool strips suitable for joint applications

Product features

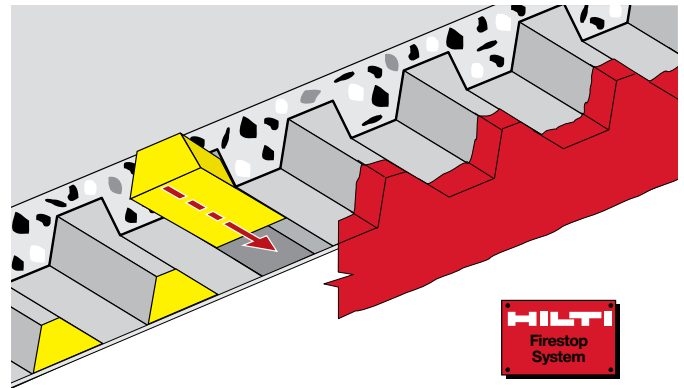
- Pre-cut to industry standard size decking flutes
- Reduces material waste
- 3 sizes available
- Pre-cut — leaves no gaps or voids
- Smooth surface provides cost effective spray coverage
- Safe to use — no asbestos/inorganic, will not mildew
- Up to 60% faster than castle cutting!

Areas of application

- Top-of-wall

Tested and approved

- UL Classified when used in conjunction with CP 606 Flexible Firestop Sealant, CP 601S Elastomeric Firestop Sealant, CP 672 Speed Spray, or CFS-SP WB Firestop Joint Spray

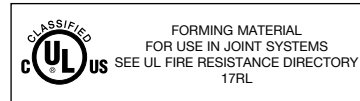


Technical Data

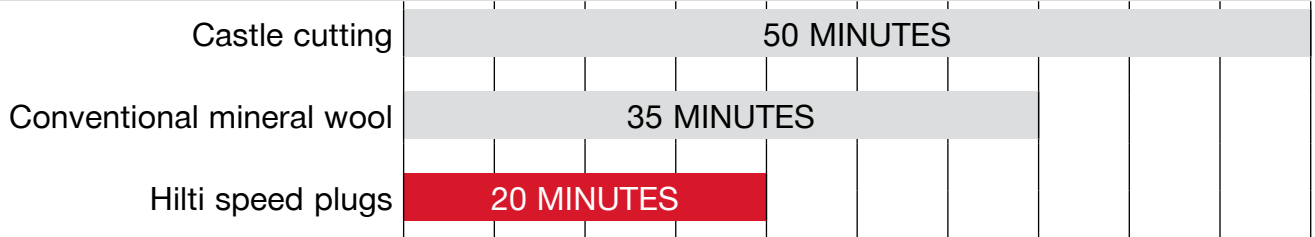
CP 767 and CP 777

Tested in accordance with

- UL 2079
- ASTM E 1966
- ASTM C G12 Type I-IUB



Saves time and money!



60% Faster than castle cutting
43% Faster than conventional mineral wool

*Based upon 40 linear feet of installation. Actual results may vary.

Installation instructions for CP 777

Notice

- Before handling, read Material Safety Data Sheet and product label for safe usage and health information.
- Instructions below are general guidelines — always refer to the applicable drawing in the UL Fire Resistance Directory or Hilti Firestop Systems Guide for complete installation information



Easy one step installation — simply cut to length and install.



Full coverage pre-cut flute configuration leaves no gaps or voids.



Superior finish smooth surface allows quick and cost effective coverage with Hilti CFS-SP WB Firestop Joint Spray.



Easy to utilize — Speed Strips in joints between wall substrate and bottom of deck. Compress per UL System.



Hilti. Outperform. Outlast.

CERTIFICATE OF COMPLIANCE

Certificate Number 20160829-R13081
Report Reference R13081
Issue Date 2016-August-29

Issued to: Hilti Construction Chemicals, Div of Hilti Inc.
7250 Dallas Pky, Legacy Tower Ste 1000
Plano, TX 75024 USA

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

Forming Materials
Forming Materials Certified for Canada

CP767 Speed Strips and CP777 Speed Plugs Speed Strips
for use in Joint Systems as currently described 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,"
CAN/ULC-S115, "Standard Method of Fire Tests of Firestop
Systems."

Additional Information:

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

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

Look for the UL Certification Mark on the product.



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/>



1 Identification

- **Product identifier**
- **Trade name:** Hilti Firestop Coated Board CFS-CT B
Hilti Firestop Coated Board CP 670
Hilti Firestop Coated Board CP 673
Hilti Firestop Coated Board CP 676
Hilti Firestop Cord CFS-CO
Hilti Firestop Sleeve CP 645
Hilti Speed Strip CP 767
Hilti Speed Plug CP 777
- **Relevant identified uses of the substance or mixture or uses advised against** No further relevant information available.
- **Application of the substance / the mixture** Construction chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Hilti, Inc.
5400 South 122nd East Ave.
US-Tulsa, OK 74146
Phone: (800) 879-8000
Fax: (800) 879-7000
Español: (800) 879-5000
- **Information department:**
chemicals.hse@hilti.com
see section 16
- **Emergency telephone number:**
Tox Info Suisse - 24 h Service
Tel.: 0041 / 44 251 51 51 (international)
- Chem-Trec
Tel.: 1 800 424 9300

2 Hazard(s) identification

- **Classification of the substance or mixture** The product is not classified according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Classification system**
- **NFPA ratings (scale 0-4)**



- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:**
Mineral wool plate with coating
Article made from mineral wool and fibre glass
- **Dangerous components:** Void

4 First-aid measures

- **Description of first aid measures**
- **General information** No special measures required.
- **After inhalation** Supply fresh air.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing** Seek immediate medical advice.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents** CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents** Water with full jet.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mount respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Avoid formation of dust.
Wear protective clothing.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections**
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling** Prevent formation of dust.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Store in dry conditions.
- **Storage class** 11
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

287922-11-6 HT stone wool (90%)

AGW(Germany) 3*; 10** mg/m³

*inhalable (long term); **respirable (short term)

- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Do not inhale dust / smoke / mist.
- **Breathing equipment:** If dust is produced.
- **Protection of hands:**



Protective gloves.

- **Material of gloves** Strong gloves
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles.

(Contd. of page 2)

· Body protection:


Protective work clothing.

9 Physical and chemical properties
· Information on basic physical and chemical properties
· General Information
· Appearance:
Form: Solid material.

Color: Green

· Odor: Odorless

· pH-value: Not applicable

· Change in condition
Melting point/Melting range: > 1000 °C (> 1832 °F)

Boiling point/Boiling range: undetermined

· Flash point: Not applicable

· Ignition temperature: Not applicable

· Auto igniting: Product is not selfigniting.

· Danger of explosion: Product does not present an explosion hazard.

· Density at 20 °C (68 °F): 100-250 g/cm³ (834.5-086.25 lbs/gal)

· Solubility in / Miscibility with
Water: Insoluble

· Solvent content:
Solids content: 100.0 %

· Other information No further relevant information available.

10 Stability and reactivity
· Reactivity
· Chemical stability
· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

· Possibility of hazardous reactions No dangerous reactions known

· Conditions to avoid No further relevant information available.

· Incompatible materials: No further relevant information available.

· Hazardous decomposition products: No dangerous decomposition products known

11 Toxicological information
· Information on toxicological effects
· Acute toxicity:
· Primary irritant effect:
· on the skin: Irritant to skin and mucous membranes.

· on the eye: Irritating effect.

· Sensitization: No sensitizing effects known.

· Additional toxicological information:

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information
· Toxicity
· Aquatic toxicity: No further relevant information available.

· Persistence and degradability No further relevant information available.

(Contd. on page 4)

(Contd. of page 3)

- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:** Not determined
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation** For disposal, local regulations issued by the authorities must be observed.

· European waste catalogue:	
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03
08 04 10	waste adhesives and sealants other than those mentioned in 08 04 09

- **Uncleaned packagings:**
- **Recommendation:**
 Disposal must be made according to official regulations.
 Dispose of packaging according to regulations on the disposal of packagings.
 Empty packs: May be disposed via the local Green Dot collecting system or EAK waste material code 150102 (plastic packaging materials)

14 Transport information

· UN-Number	
· DOT, ADR, ADN, IMDG, IATA	Void
· UN proper shipping name	
· DOT, ADN, IMDG, IATA	Void
· ADR	Void
· Transport hazard class(es)	
· DOT, ADR, ADN, IMDG, IATA	
· Class	Void
· Packing group	
· DOT, ADR, IMDG, IATA	Void
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	-

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· Section 355 (Extremely hazardous substances):
None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):
None of the ingredients are listed.

· TSCA (Toxic Substances Control Act):
All ingredients are listed.

· Proposition 65:
· Chemicals known to cause cancer:
None of the ingredients are listed.

· Carcinogenicity categories
· EPA (Environmental Protection Agency)
None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)
None of the ingredients is listed.

· MAK (German Maximum Workplace Concentration)
None of the ingredients is listed.

(Contd. on page 5)

(Contd. of page 4)

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· National regulations

· Information about limitation of use: None

· Chemical safety assessment: not required.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS:

Hilti Corporation

Business Unit Chemicals

Quality/Safety/Environment

FL-9494 Schaan / Liechtenstein

chemicals.hse@hilti.com

Tel.: +423 234 3004

FAX.: +423 234 3462

· Date of preparation / last revision 05/19/2015 / -

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

· * Data compared to the previous version altered.

US



January 27, 2016

To Whom It May Concern:

Re: **Hilti CP767 Speed Strips and CP777 Speed Plugs – LEED Information**

Item Numbers:

CP 767	CP 777
374505	340998
374506	340999
374507	371925
374508	

The Hilti CP767 Speed Strips and CP777 Speed Plugs are manufactured in North Carolina.

Post-consumer recycled content of Hilti CP767 Speed Strips and CP777 Speed Plugs is 0%. Pre-consumer recycled content of Hilti CP767 Speed Strips and CP777 Speed Plugs is 0%. There is no detectable VOC content either product.

Hilti CP767 Speed Strips and CP777 Speed Plugs are 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: 1/27/16

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

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 compressed 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: 20040809-R10905

ISSUE DATE: August 9, 2004

Page 1 of 1

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

Report Reference: R10905


**This is to Certify that
representative samples of:** Forning Material, designated as Type SAF mineral wool batts.

**Have been investigated by Underwriters Laboratories Inc.® in accordance with the Standard(s) indicated
on this Certificate.**

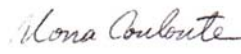
Standard(s) for Safety: ANSI/UL 1479, Fire Tests of Through-Penetration Firestops. ANSI/UL 2079,
Test for Fires Resistance of Building Joint Systems. ASTM E2307-04, Standard
Test Method for Determining Fire Resistance of Perimeter Fire Barrier Systems
Using Intermediate-Scale, Multi-story Test Apparatus


Additional Information: Type SAF mineral wool batts for use as a forming material for use in various
Through-Penetration FireStop Systems, Joint Systems and Perimeter Fire Barrier
Systems as Specified in UL's Fire Resistance Directory Volume 2.

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

The UL Classification Marking includes: UL in a circle symbol:  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 MARKING ON THE PRODUCT!

Engineer:
Mona Couloute 
Underwriters Laboratories Inc.

Review Engineer: 
Chris Johnson
Underwriters Laboratories Inc.





September 24, 2015

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: 9/24/15

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

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5400 South 122nd East Avenue
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