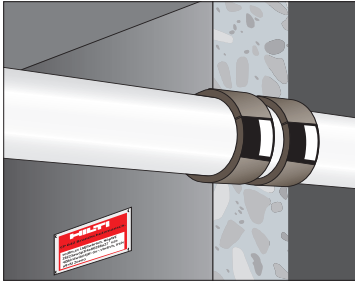


CP 648-S

Firestop Wrap Strip



System Advantage / Customer Benefits

- Quick and easy closure without tools
- Ideal for very tight installations

Installation instructions for CP 648-S

Installation

1. Clean the plastic pipe. Expansion of the intumescent material during a fire closes the plastic pipe. Very dirty pipes with, for example, remains of mortar, may lead to a delay in the closing action. Badly soiled plastic pipes should, therefore, be cleaned in the area where the CP 648-S Firestop Wrap Strip is to be installed.
2. Install Wrap Strip. First check the annular space to ensure compatibility with the appropriate UL/cUL System. Use the CP 648-S Firestop Wrap Strip corresponding to the diameter of the pipe to be installed. Wrap the CP 648-S strip around the pipe and fasten it tightly using the integrated adhesive strip.
Push the CP 648-S Firestop Wrap Strip into the annular space in accordance with the UL/cUL listing.
3. Seal against smoke and gas. Seal the remaining gap with Hilti FS-ONE sealant.
4. For maintenance reasons, a penetration seal can be permanently marked with an identification plate and fastened in a visible position next to the seal.

Product description

- An intumescent, flexible firestop single wrap strip for plastic and insulated pipe penetrations

Product features

- Highly Intumescent
- Pre-measured—no cutting required
- Integrated fastening tape
- Cost effective

Areas of application

- Firestopping combustible pipe penetrations
- Difficult applications where space is limited
- Penetrations through concrete over metal deck
- Suitable for the following plastic pipe materials: PVC, CPVC, ABS

For use with

- Concrete, masonry, wood floor and gypsum wall assemblies
- Wall and floor assemblies rated up to 2 hours

Examples

- Waste water pipes
- Fresh water pipes
- Decking penetrations

Notice about approvals

- When making a pipe seal using Hilti CP 648-S Firestop Wrap Strip, please refer to the UL/cUL Fire Resistance Directory or the Hilti Firestop Manual for complete details, including restrictions as to opening size, type and thickness of wall or floor, maximum pipe diameter, etc.

Not for use...

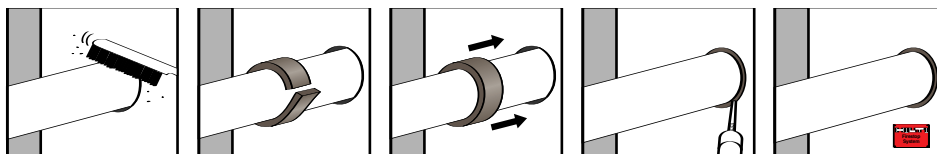
- In highly corrosive surroundings
- In outdoor areas

Safety precautions

- Read the Material Safety Data Sheet
- Keep out of the reach of children

Storage

- Store only in the original packaging in a location protected from moisture at temperatures between 23°F and 86°F (-5°C and 30°C).



1. Clean penetration
- 2A. Wrap the CP 648-S Wrap Strip around the pipe and fasten it tightly with the adhesive strip.
- 2B. Push the CP 648-S Wrap Strip along the pipe and into the annular space as indicated above.
3. Seal penetration against smoke with FS-ONE sealant.
4. Fasten installation plate (if required)

CP 648-S

Technical Data

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

Density

Approx. 1.35 g/cm³

Approx. Dimens. (thkns" x width" x length")

1.5" :	3/16" x 1" x 6-3/4"
2" :	3/16" x 1" x 8-1/4"
3" :	3/16" x 1-3/4" x 11-1/2"
4" :	3/8" x 1-3/4" x 15"
6" :	1/2" x 1-3/4" x 22-1/4"

Color

Black with foil backing

Temperature resistance

-40°F to 212°F (-20°C to 100°C)

Intumescent activation

Approx. 320°F (160°C)

Expansion ratio (unrestricted)

1:40

Surface burning characteristics (ASTM E 84-96)

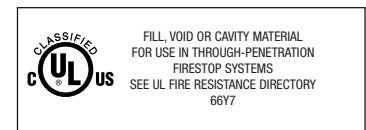
Flame Spread Index: In progress

Smoke Development Index: In progress

Tested in accordance with

- UL 1479
- ASTM E 814
- ASTM E 84
- ULC-S115-95M

Internationally tested and approved



latest product information : www.ca.hilti.com

ordering information see page:

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MSDS No.: 302C
 Revision No.: 000
 Revision Date: 03/16/04
 Page: 1 of 2

Product identifier: **CP 648S & CP 648E Firestop Wrap Strip**
 Product description: 1" or 1-3/4" wide intumescent wrap for plastic or insulated pipe
 Supplier: Hilti (Canada) Corporation, 6790 Century Avenue, Suite #300, Mississauga, Ontario L5N 2V8
 Originator: Hilti, Inc., P. O. Box 21148, Tulsa, Oklahoma, USA 74121
 Emergency phone number: Chem-Trec: 1 800 424 9300

INGREDIENTS INFORMATION

Not a hazardous chemical as defined by the Controlled Products Regulations SOR/88-66; considered to be a manufactured "article".

PHYSICAL PROPERTIES

Appearance / Physical state:	Dark gray colored putty strips	Odor:	Mild odor
Density	1.3-1.4 g/cm ³	Odor threshold:	Not available.
Vapor pressure (at 20°C):	Not applicable.	Vapor density:	Not applicable.
Evaporation rate:	Not applicable.	Boiling point:	Not applicable.
Freezing point:	Not applicable.	pH:	Not applicable.
Coefficient of H2O / oil distrib:	Not applicable.	Solubility in water:	Insoluble.

FIRE AND EXPLOSION DATA

Flash point / Method:	Not applicable. Flammable limits: Not applicable.
Conditions of flammability:	Non-flammable. Auto-ignition temperature: Not available.
Means of extinction:	Not applicable. As appropriate for surrounding fire (e.g. Water, CO ₂ , Dry Chemical, Foam).
Special fire fighting procedures:	None known. Product serves as a Firestop; intumescent material begins to expand when exposed to temperatures > 160°C (320°F).
Hazardous combustion products:	None known.
Sensitivity to mechanical impact / static discharge:	Not susceptible to mechanical impact or to a static discharge.

REACTIVITY DATA

Stability:	Stable. Hazardous polymerization will not occur.
Incompatible materials:	None identified.
Conditions of reactivity:	None known.
Hazardous decomposition products:	None known.

TOXICOLOGICAL PROPERTIES

Routes of exposure:	<input checked="" type="checkbox"/> N/A <input type="checkbox"/> Skin contact <input type="checkbox"/> Skin absorption <input type="checkbox"/> Eye contact <input type="checkbox"/> Inhalation <input type="checkbox"/> Ingestion
Exposure limits:	Not available.
Acute effects of exposure:	None known.
Chronic effects of exposure:	None known.
Synergistic materials:	None known.

INTRODUCTION

APPLICATIONS / PRODUCTS

SYSTEM DETAILS

ESTIMATING TABLES / TECH DATA

MSDS No.:	302C
Revision No.:	000
Revision Date:	03/16/04
Page:	2 of 2

FIRST AID MEASURES

Eyes:	Flush with water if dust, debris, etc. from work overhead gets into eyes. Do not rub eyes as this can cause corneal abrasion. Call a physician if irritation continues, or if redness, swelling, or similar symptoms occur.
Skin:	Practice good hygiene; i.e. wash hands during breaks, before eating or smoking and after work.
Inhalation:	No first aid should be needed. If ill effects occur, move to fresh air. If symptoms persist, seek medical attention.
Ingestion:	Not a likely route of exposure.
Other:	Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure.

CONTROL MEASURES AND PERSONAL PROTECTIVE EQUIPMENT

Engineering controls:	General (natural or mechanically induced fresh air movements).
Eye protection:	Safety glasses are recommended for most industrial settings.
Skin protection:	None required; however (cotton) gloves are recommended.
Respiratory protection:	None normally required.
Other:	No additional measures are normally required.

PRECAUTIONS FOR SAFE HANDLING AND USE

Handling procedures and equipment:	No special requirements. Follow installation instructions.
Storage requirements:	Store in a cool dry area.
Spill, leak or release:	No special requirements.
Waste disposal:	Consult federal, provincial, and local regulations for allowed means of disposal.
Special shipping instructions:	None known.

REGULATORY INFORMATION

WHMIS classification:	None (exempt/manufactured article)
HMIS codes:	Health 0, Flammability 0, Reactivity 0, PPE A
TDG shipping name:	Not regulated.

PREPARATION INFORMATION / CONTACTS

Prepared by:	Hilti, Inc., Tulsa, OK USA	Emergency phone number:	1 800 424 9300
Customer Service:	Hilti (Canada) Corporation, Mississauga, Ontario; 1 800 363 4458		
Health / Safety contacts:	Hilti, Inc., Tulsa, OK USA; 1 800 879 6000, Jerry Metcalf (x6704)		
Abbreviations used:	N/E = None Established. N/Ap = Not Applicable. N/Av = Not Available. HMIS : Hazardous Materials Identification System		

The information and recommendations contained herein are based upon data believed to be correct; however, no guarantee or warranty of any kind expressed or implied is made with respect to the information provided.

Certificate of Compliance

Certificate Number **20060214-R13240L**
Report Reference **2006 February 14**
Issue Date **2006 February 14**

Page 1 of 1



Issued to: **Hilti, Inc.**
5400 S 122ND East Ave
Tulsa, OK 74146 USA


This is to certify that representative samples of **Fill, Void or Cavity Materials**
CP 648E, CP 648S

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


Standard(s) for Safety: ANSI/UL 1479, CAN/ULC-S115-05

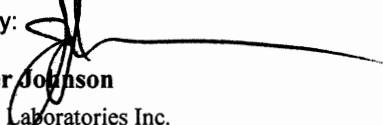
Additional Information: CP 648E and CP648S (Product number may be suffixed to denote size) Wrap Strip for use in Through-Penetration Firestop Systems as currently described in the UL Fire Resistance Directory.

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 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 Mark on the product

Issued by:

Mona Couloute
Underwriters Laboratories Inc.

Reviewed by:

Christopher Johnson
Underwriters Laboratories Inc.