



Hilti CF125-50 Insulating Foam Sealant

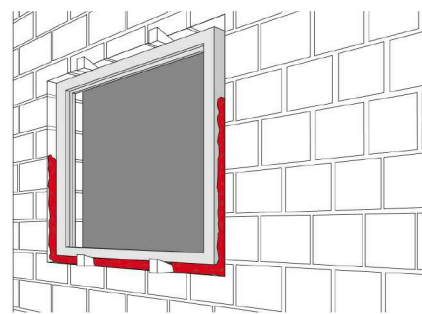
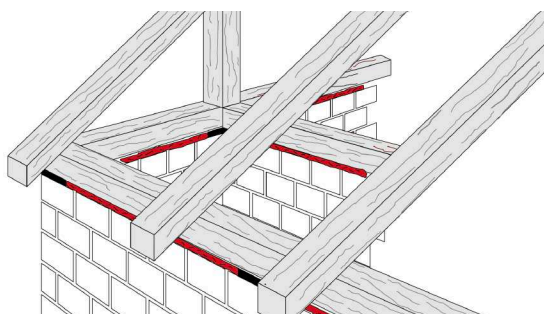
Submission Folder

Product Information	2
Method Statement	3
Test Reports	
- Resistance to Air and Water penetration	4-5
- Inspection of the Adhesive condition of cement	6-7
- RED R23B17-A	8-19
Letters	
Country of Origin	20
Material Safety Data Sheet	21-28
Job Reference	29



Recycling one ton of paper saves 17 trees and 7000 gallons of water.
Please consider your environmental responsibility before using the hard copy version!

Dispenser foam CF125-50



APPLICATIONS

- Insulating gaps around window frames, cooling equipment and pipes, heating pipes, baths, wood floors, air-conditioning equipment, air ducts

ADVANTAGES

- High yield
- Stop-and-go controlled dispensing
- Economical in use

Technical data

Chemical basis	Polyurethane
Content per can/cartridge	750 ml
Foam yield (up to)	50 l
Approx. tack-free time (at 23°C / 50% rel. humidity)	10 min
Approx. cut time (at 23°C / 50% rel. humidity)	20 min
Min. time before loadbearing	Approx. 3-5 h
Temperature resistance range	-30 - 80 °C
Storage and transportation temperature range	5 - 25 °C
Thermal conductivity (λ approx. value)	0.04 W/mK
Shelf life¹⁾	12 Months

¹⁾ at 77°F/25°C and 50% relative humidity; from date of manufacture



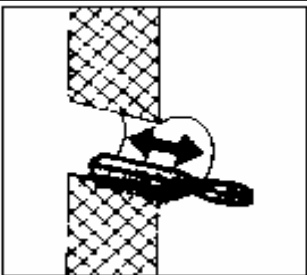
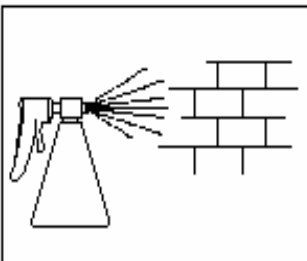
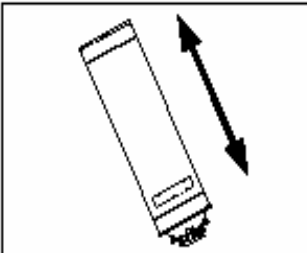
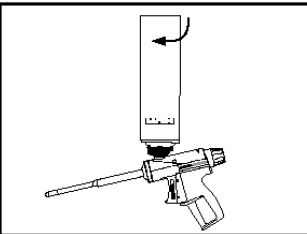
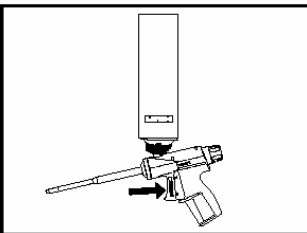
Order Now



Ordering designation	Sales pack quantity	Item number
CF 125-50 750ML	1 pc	259628

Please visit Hilti website for the latest item numbers and related products

Hilti CF125-50 Single Component Filling Foam for Wall Tie Hole For Wall Tie Hole or Any Filling Applications

Method Statement:	
1. Clean the wall tie hole by using a brush.	
2. Insert a wooden cork to close the end of the wall tie hole.	
3. Use a fine water spray to pre-moisten the hole, however, avoid the formation of large water droplets on the surface.	
4. Shake the can thoroughly before use.	
5. Screw the foam can onto the dispenser (CF-DS1).	
6. Apply the foam from the dispenser	

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.materiallab.com.hk

MaterialLab



Client Ref. : --
Report No. : 154693ST160085(1)A

Page 1 of 2

REPORT ON RESISTANCE TO AIR AND WATER PENETRATION OF EXPANDING FOAM

Information Supplied by Client

Client : Hilti (HK) Ltd.
Project : Testing of Expanding Foam
Sample Description : "HILTI" Dispenser Foam CF125-50

Laboratory Information

Lab. Sample I.D. : ST160085/4-6
Address of Test Location : DD111, Lot 3028, Wang Toi Shan Village, Pat Heung, Kam Tin, N.T.
Date Received : 28 April 2016
Date Test Started : 26 May 2016
Date Test Completed : 30 May 2016
Test Size : 1200 x 1200 mm x 70mm thk concrete wall with six numbers of 20mmØ hole filled with "HILTI" Dispenser Foam CF125-50
Test Method : Ref. to BS 4315 : Part 2 : 1970, Method C
Test Procedure : The water flow in the spraying system during test was no less than 0.5 L/min. x 1.44m² = 0.72L/min.m².
At the same time wind pressure of 360Pa was applied to the test specimen.
The test was continued for 2 days with daily test period of 6 hours.
Inspection was carried out to identify the penetration of water on the test specimen after the completion of each test period.
Test Equipment : The test pressure was supplied by a centrifugal fan. The water pressure of the spraying system was supplied by a high-pressure water pump. The adjustment of water flow was controlled by a valve and a flow monitoring device.

Test Results

During the 1st test period :
After 6-hours of water spraying, no water penetration was observed on the expanding foam.

During the 2nd test period :
After 6-hours of water spraying, no water penetration was observed on the expanding foam.

Remarks :

- 1.) The test results relate only to the sample tested.
- 2.) The test sample, test configuration and sample after test are shown in the photographs on page 2 of this report.
- 3.) This report is to supersede our previous test report no. 154693ST160085(1).

Checked by : 2 Date : 26 AUG 2016 Certified by : Chan Chun Wai Ivan Date : 26 AUG 2016

Chan Chun Wai Ivan
Manager (Product Testing Laboratory)

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.materialab.com.hk

Materialab

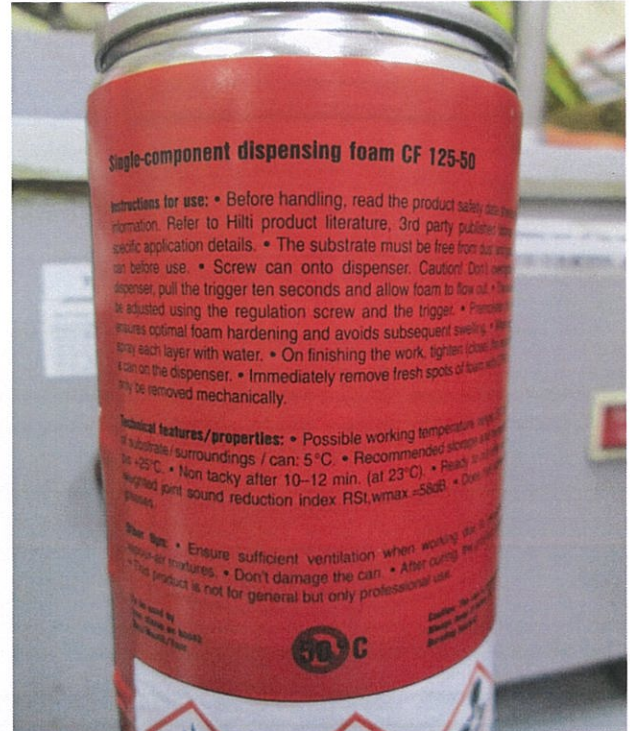
Client Ref. : --

Report No. : 154693ST160085(1)A

Page 2 of 2



Test Sample
Sample I.D.: ST160085/4-6



Test Sample
Sample I.D.: ST160085/4-6



Test Configuration
Sample I.D.: ST160085/4-6



Sample After Test
Sample I.D.: ST160085/4-6

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.materiallab.com

MaterialLab

Client Ref. : --
Report No. : 154693ST160085(3)A

Page 1 of 2

REPORT ON INSPECTION OF THE ADHESIVE CONDITION OF CEMENT (1:3:CEMENT:SAND) APPLIED TO THE EXPANDING FOAM

Information Supplied by Client

Client : Hilti (HK) Ltd.
Project : Testing of Expanding Foam
Sample Description : "HILTI" Dispenser Foam CF-125-50

Laboratory Information

Lab. Sample I.D. : ST160085/4-6
Address of Test Location : DD111, Lot 3028, Wang Toi Shan Village, Pat Heung, Kam Tin, N.T.
Date Received : 28 April 2016
Date Test Started : 31 May 2016
Date Test Completed : 01 June 2016
Test Size : 1200 x 1200 mm x 70mm thk concrete wall with six numbers of 20mmØ hole filled with "HILTI" filling foam CF-F750

Test Results

Lab. Sample I.D.	Test Time (day)	Observation
ST160085/4	1	No detachment of cement sand
ST160085/5	1	No detachment of cement sand
ST160085/6	1	No detachment of cement sand

Remarks :

- 1.) The test results relate only to the sample tested.
- 2.) The sample after test are shown in the photographs on page 2 of this report.
- 3.) This report is to supersede our previous test report no. 154693ST160085(3).

Checked by : i Date : 15 JUL 2016 Certified by : K. T. Leung Date : 15 JUL 2016
Leung Kwok Tai / Stanley
Assistant Manager (Product Testing Laboratory)

FUGRO TECHNICAL SERVICES LIMITED

Fugro Development Centre,
5 Lok Yi Street, Tai Lam,
Tuen Mun, N.T.,
Hong Kong.

Tel : +852 2450 8233
Fax : +852 2450 6138
E-mail : matlab@fugro.com
Website : www.materialab.com

MaterialLab

Client Ref. : --

Report No. : 154693ST160085(3)A

Page 2 of 2



Sample After Test
Sample I.D.: ST160085/4-6

**** End of Report ****

ASSESSMENT REPORT

The Fire Resistance Performance of Hilti “CF125-50” and “CP606” for the wall tie hole sealing application

Report No.: R23B17-1A
Issue Date: 27 March, 2023
Date of Review: 26 March, 2026

Report Sponsor

Hilti (Hong Kong) Limited
701-704 & 708B, Tower A Manulife Finance Centre,
223 Wai Yip Street, Kwun Tong, Kowloon, HK

This report only relates to the specimen(s) tested and may only be reproduced by the sponsor in full, without comment, abridgement and modifications.

CONTENT

Section	Description	Page
1	INTRODUCTION	3
2	ASSUMPTIONS	3
3	SUPPORTING DATA	4
4	PROPOSAL & DISCUSSION	7
5	CONCLUSION	10
6	DECLARATION BY APPLICANT	10
7	VALIDITY	10
8	SIGNATORIES	10
APPENDIX – DRAWINGS PROVIDED BY THE CLIENT		11

REVISION HISTORY

Issue date (DD/MM/YYYY)	Issue number	Remark
27/03/2023	0	Initial version

THE FIRE RESISTANCE PERFORMANCE OF WALL TIE HOLE SEALING APPLICATION

1 INTRODUCTION

This assessment report presents an appraisal for the use of the Hilti "CF125-50" for wall tie holes sealing application. The appraisal will be based on the test evidence WARRES no. 110715 and 69754/C issued by Warringtonfire. This report is prepared for Hilti (Hong Kong) Limited of 701-704 & 708B, Tower A, Manulife Finance Centre, 223 Wai Yip Street, Kwun Tong, Kowloon, HK.

The proposed sealing for the cables penetration systems are required to provide a fire resistance performance of up to 120 minutes or 240 minutes integrity and 120 minutes insulation with respect to BS 476: Part 20: 1987.

2 ASSUMPTIONS

The proposed systems are assumed to be installed in a similar manner to that of the previously tested system by competent installers. It is assumed that the modified systems will be constructed in a similar manner from materials and components of the same manufacture and equivalent quality as tested with supporting test evidence or otherwise appraised by RED. Further assumptions related to the specific modifications will be stated in the report.

It is also assumed that the supporting structures to which the perimeter of the systems will be fixed are capable of supporting the proposed structure effectively.

Assuming that the issue of the original test report is valid, the current testing standard or testing experience has not been changed and the procedures adopted for the original report have been re-examined and reviewed that there have been no changes to the specification of the construction considered in the original report. If contradictory data or any related evidence becomes available to RED, the assessment will be unconditionally withdrawn and the sponsor will be notified. This report is based on the given information, in which is declared by report sponsor that no contradictory data has become available.

3 SUPPORTING DATA

3.1 Summary of Supporting Test Evidence

Report no.	Sections	Description
Primary Test Evidence		
WARRES report no. 110715	4.1	Supporting indicative test evidence for the use of the Hilti "CF125-50" foam for sealing up of linear gap within a softwood to blockwork gap face combinations. The test was conducted in accordance with BS476: Part 20: 1987.
WARRES report no. 69754/C	4.1	Supporting test evidence for the use of the Hilti "CP606" sealant with various backing materials for the purpose of sealing floor mounted linear gap joint. The test was conducted in accordance with BS 476: Part 20.

3.2 Primary Test Evidence

3.2.1 Warringtonfire Test Report No. 110715[#]

A fire resistance test stated to be in accordance with BS 476: Part 20: 1987 and reference to the additional guidelines from the draft document prEN1366: Part 4. to evaluate the fire resistance performance of four specimens of wall linear gap sealing system was performance by the Warringtonfire testing laboratory on 11th November, 1999. The report was prepared for Hilti (GB) Limited, the Hilti Entwicklungsgesellschaft mbH had given permission to use this data.

Four specimens being evaluated were proprietary gap sealing system, each nominally 100 mm deep by 15 mm wide, installed between softwood to blockwork/brickwork wall. The specimens were referenced 'A', 'B', 'C', and 'D' for the purpose of the test.

The specimens satisfied the performance requirements specified in BS 476: Part 20: 1987 for the following periods:

Specimen Ref:	Gap interface	Specimen description	Integrity	Insulation
A	Softwood to brickwork	CF 125-45/B1	150 minutes	150 minutes
B	Softwood to blockwork	CF 125-45/B1	146 minutes	146 minutes
C	Softwood to blockwork	CF 125-50	136 minutes	131 minutes
D	Softwood to brickwork	CF 125-50	150 minutes	137 minutes

The test was discontinued after a heating period of 150 minutes (See WARRES no. 110715 for full details).

[#]Note: the test data is more than five years old; we have reviewed this data against the current test procedures as per BS 476: Part 20: 1987 and found it suitable for this assessment.

3.2.2 WARRES Test Report No. 69754/C*

A fire resistance test on four specimens of proprietary gap sealing systems incorporated between various floor sections used the general principles of BS 476: Part 20: 1987 and in conjunction with additional guidelines from the draft document CENT/TC127 N579 was performed at the WARRES laboratory on 14th November 1996. The test sponsor was Hilti Ag, the Hilti Entwicklungsgesellschaft mbH had given permission to use this data.

The test was performed on four different specimens of gap sealing systems referenced 1 to 4 for the purposes of the test. Three specimens were incorporated between aerated concrete gap faces, the fourth between steel gap faces. The gap referenced 1 and 2 were of nominal width 20 mm, those referenced 3 and 4 were of nominal width of 30 mm, all were of nominal length 950 mm. Each gap was sealed using Hilti CP606 in conjunction with a proprietary backing material.

The performance of each specimen assessed against the integrity and insulation (maximum temperature rise) criteria of BS 476: Part 20: 1987, the results were expressed as follow:

Specimen Ref:	Gap Width (mm)	Gap Faces	CP606 Depth	Backing Material	Integrity (Min)	Insulation (Min)
1	20	AAC/AAC	10	PE	240	130
2	20	AAC/AAC	15	CF125-50	240	208
3	30	Steel/Steel	15	Rockfibre	240	36
4	30	AAC/AAC	15	Rockfibre	240	216

The test was discontinued after a period of 240 minutes (See WARRES no. 69754/C for full details).

*Note: the test data is more than five years old; we have reviewed this data against the current test procedures as per BS 476: Part 20: 1987 and found it suitable for this assessment.

4 PROPOSAL & DISCUSSION

4.1 The fire resistance performance of linear joint or wall tie hole sealing system using the Hilti "CF125-50" with respect to BS 476: Part 20: 1987.

Proposal

It is proposed that Hilti "CF125-50" is used for the purpose of the following applications:

- (a) For sealing of linear gaps up to 15 mm wide provided within concrete wall construction. The wall shall be minimum 100 mm thick and the depth of the Hilti "CF125-50" shall be minimum 100 mm as well. For this application, the seals are required to provide 120 minutes integrity and insulation performance;
- (b) For sealing of wall tie hole up to 25 mm diameter provided within concrete wall construction. The wall shall be minimum 100 mm thick and the depth of the Hilti "CF125-50" shall be minimum 100 mm as well. For this application, the seals are required to provide 120 minutes integrity and insulation performance;
- (c) For sealing of linear gaps up to 20 mm wide provided within concrete wall construction. The wall shall be minimum 200 mm thick, the Hilti "CF-125-50" shall be minimum 185 mm with the seal up of 15 mm deep Hilti CP 606 on the unexposed face. For this application, the seals are required to provide 240 minutes integrity and 120 minutes insulation performance;
- (d) For sealing of wall tie hole up to 20 mm diameter provided within concrete wall construction. The wall shall be minimum 200 mm thick and the depth of the Hilti "CF125-50" shall be minimum 185 mm with the seal up of 15 mm deep Hilti CP 606 on the unexposed face. For this application, the seals are required to provide 240 minutes integrity and 120 minutes insulation performance;

Table 1: Application of Hilti "CF125-50" for different configuration

Sealing description	Maximum gap width	Min. wall thickness	Seal configuration	Integrity	Insulation
Linear joint	15 mm	100 mm	"CF125-50" 100 mm deep	120	120
Linear joint	20 mm	200 mm	"CF125-50" 185 mm deep + "CP606" 15 mm on unexposed side	240	120
Wall tie hole	Ø 25 mm	100 mm	"CF125-50" 100 mm deep	120	120
Wall tie hole	Ø 20 mm	200 mm	"CF125-50" 185 mm deep + "CP606" 15 mm on unexposed side	240	120

Discussion

The test evidence WARRES 110715 described the test of four specimens and the ability of the wall mounted linear gap sealing purpose comprising of 15 mm wide by 100 mm deep Hilti “CF125-50” foam (Specimen C). To provide 136 minutes integrity and 131 minutes insulation with respect to BS 476: Part 20: 1987. Although the tested linear gap was installed against one softwood face and one AAC block gap face, the application of the proposed use of both masonry face is considered acceptable. Since the linear gap formed by both masonry face shall be a less onerous condition, compared to the softwood face which may be charred during the heating.

The test evidence WARRES 69754/C described the test of four specimens sealing up the linear gap on the floor. In which, Specimen ‘2’ comprising a 20 mm wide by 135 mm deep Hilti “CF125-50” foam with the 15 mm deep Hilti “CP606” on top (unexposed face). This system achieved the fire resistance performance of 240 minutes integrity and 208 minutes insulation with respect to BS 476: Part 20: 1987.

- a) The application as mentioned is considered as directly adopted the tested application except that the linear gap of concern is formed by both masonry construction faces. The gap formed by both masonry wall faces is considered as a less onerous situation since the linear gap may not be deformed or deteriorated compared to the face formed by timber that may charred away. In such case, the tested conditions is considered applicable to the proposed scenario.
- b) The application of the use of the Hilti “CF125-50” and “CP606” to seal up the wall tie hole up to 25 mm diameter is reference to the application as mentioned in (a). Although the proposal hole diameter is wider than that described in (a), the geometry of the proposed hole sealing actually provide increased support to the foam, a much larger proportion of the total surface area being in direct contact of the supporting construction. Therefore, the proposed condition is considered acceptable.
- c) The proposed application is referenced to the application of Specimen 2 as tested under WARRES 69754/C. In the test, the linear gap is formed within a floor construction, which is generally considered as a more onerous situation since the sealing material is subjected to the self-weight that may have the chance to fall. Combining the tested application under the wall mounted situation in WARRES no. 110715, the application of the floor sealing applies to the wall mounted situation is considered acceptable with the conservative provision. In this proposal, the Hilti “CF125-50” that proposed to seal up the 20 mm wide by 200 mm deep masonry wall linear gap and the application of the Hilti “CF125-50” is increased from 135 mm to 185 mm. The proposed increased is considered as an enhancement to the overall fire resistance performance. Since the original application of 135 mm deep Hilti “CF125-50” and 15 mm deep Hilti “CP606” on the unexposed side already satisfy 240 minutes integrity and 120 minutes insulation. The

proposed enhanced thickness for the wall application is considered as acceptable with the conservative consideration.

- d) The application of the use of the Hilti “CF125-50” and “CP606” to seal up the wall tie hole up to 20 mm diameter is reference to the application as mentioned in (c). Although the proposal hole diameter is wider than that described in (c), the geometry of the proposed hole sealing actually provide increased support to the foam, a much larger proportion of the total surface area being in direct contact of the supporting construction. Therefore, the proposed condition is considered acceptable.

In summary, the proposed application conditions of the Hilti “CF125-50” are generally referenced to the tested condition, with some of them are appraised with a conservative approach.

5 CONCLUSION

The proposed use of Hilti “CF125-50” foam for wall tie hole or linear gap sealing application as discussed in Section 4 of this report, are capable to maintain the fire resistance performance of up to 120 minutes or 240 minutes integrity and 120 minutes insulation performance with respect to BS 476: Part 20: 1987.

6 DECLARATION BY APPLICANT

We, Hilti (Hong Kong) Limited, confirm that the material, component or element of structure, which is the subject of the test report being reviewed, has not to our knowledge been subjected to another test to the standard against which the assessment is being made.

We agree to withdraw this assessment from circulation should the component or element of structure be the subject of another test to the standard against which the assessment is being made.

We are not aware of any information that could affect the conclusions of this assessment.

If we subsequently become aware of any such information we agree to ask the assessing authority to withdraw the assessment.


7 VALIDITY

This assessment is based on test data, experience and the information supplied. The assessment will be invalidated if the assessed construction is subsequently tested since actual test data is deemed to take precedence over an expressed opinion. Any changes in the specification of product will invalidate this assessment. This assessment relates only to the specimen assessed and does not by itself infer that the product is approved under any other endorsements, approval or certification scheme. Since the appraisal method is under development, the laboratory reserved the right to supersede this assessment in case the appraisal method had been changed.

This report only relates to the specimen(s) tested and may only be reproduced by the sponsor in full, without comment, abridgement and modifications.

8 SIGNATORIES

Assessment by:



Dr. SZE Lip-kit

Test Consultant

Research Engineering Development

Façade Consultants Limited

Reviewed by:



Ir Dr. YUEN Sai-wing, MHKIE (Fire)

Authorized Signature

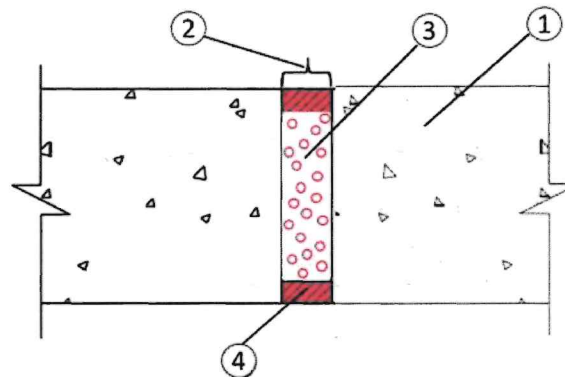
Research Engineering Development

Façade Consultants Limited

APPENDIX – DRAWINGS PROVIDED BY THE CLIENT

Drawing refers to section 4a on linear joint application by using CP606 and CF125-50

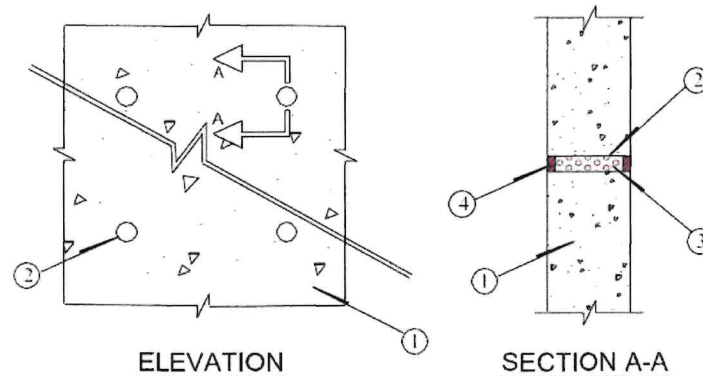
FIRE RESISTANCE RATING: UP TO -/120/120



1. CONCRETE WALL ASSEMBLY WITH MIN THICKNESS 100mm
2. LINEAR GAP WITH MAX 15mm WIDTH.
3. CF 125-50 FOAM WITH 100mm DEEP
4. MINIMUM 15 mm DEPTH CP 606 FIRESTOP SEALANT, FLUSH WITH THE CONCRETE WALL SURFACE

Drawing refers to section 4b on wall tie hole application by using CP606 and CF125-50

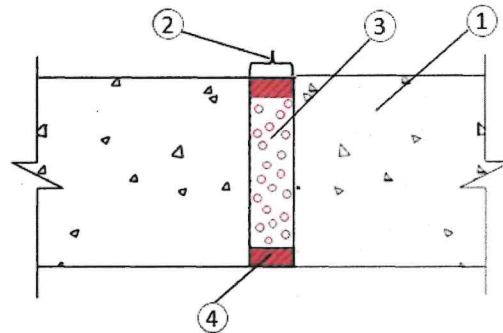
FIRE RESISTANCE RATING: UP TO -/120/120



1. CONCRETE WALL OR FIRE-RATED BLOCKWALL ASSEMBLY WITH MIN THICKNESS 100mm
2. WALL TIE HOLE WITH MAX 25mm DIAMETER.
3. CF 125-50 FOAM WITH 100mm DEPTH
4. MINIMUM 15 mm DEPTH CP 606 FIRESTOP SEALANT, FLUSH WITH THE CONCRETE WALL SURFACE

Drawing refers to section 4c on linear joint application by using CP606 and CF125-50

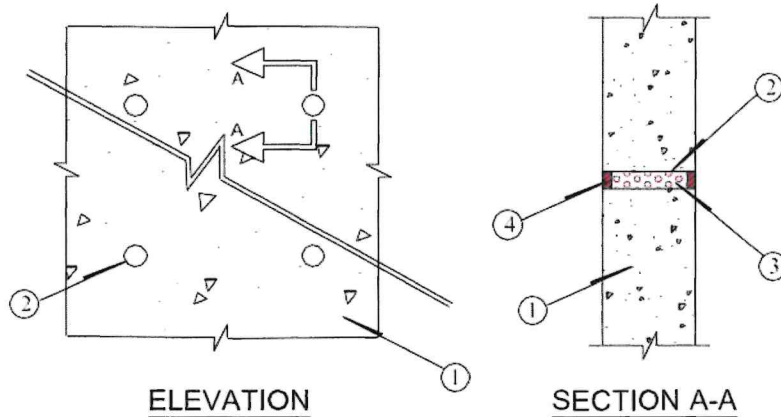
FIRE RESISTANCE RATING: UP TO -/240/120



1. CONCRETE WALL ASSEMBLY WITH MIN THICKNESS 200mm
2. LINEAR GAP WITH MAX 20mm WIDTH.
3. CF 125-50 FOAM WITH 185mm DEPTH
4. MINIMUM 15 mm DEPTH CP 606 FIRESTOP SEALANT ON UNEXPOSED SIDE

Drawing refers to section 4d on wall tie hole application by using CP606 and CF125-50

FIRE RESISTANCE RATING: UP TO -/240/120



1. CONCRETE WALL OR FIRE-RATED BLOCKWALL ASSEMBLY WITH MIN THICKNESS 200mm
2. WALL TIE HOLE WITH MAX 20mm GAP WIDTH.
3. CF 125-50 FOAM WITH 185mm DEEP
4. MINIMUM 15 mm DEPTH CP 606 FIRESTOP SEALANT ON UNEXPOSED SIDE

- End of Report -

Attn. : To whom it may concern

Date : 1 April 2025
Ref. : 017/FP/SC/25

Subject : Country of Origin - Hilti CF125-50 Insulating Foam Sealant

Dear Sir / Madam,

Enclosed please find the information of Hilti CF125-50 Insulating Foam Sealant.

Brand Name : Hilti

Model Name : Hilti CF125-50 Insulating Foam Sealant

Manufacturer : Hilti Corporation

Address of Manufacturer : FL-9494, Principality of Liechtenstein.

Supplier : Hilti (Hong Kong) Ltd

Address of Supplier : 701-704, 7/F, Tower A, Manulife Financial Centre,
223 Wai Yip Street, Kwun Tong, Kowloon, Hong Kong

Country of Origin : Germany

Should you have further questions, please do not hesitate to contact our Technical Representatives, Customer Service Hotline at 8228-8118, or email us at hksales@hilti.com.

Yours faithfully,



Spencer Cheung
Head of Product Leadership Strategy

13 Sep 2022
REF: 074/FP/SC/22

Subject: Hilti CF ISO 500+ Insulating foam – New product replacement of CF-F 750 GV

To whom it may concern,

Hilti has always been devoted in innovating and improving our products. We are pleased to introduce you CF ISO 500+ insulating foam, which replaced CF-F 750 GV. Both products are PU foams but CF ISO 500+ is with better performance and upgraded features. Below are the upgraded features of CF ISO 500+.

- Larger temperature resistance range at -40 – 90°C
- High yield formulation up to 44 litre
- Shorter cut time at 20 mins (at 23°C, 50% rel. humidity)

You can be certain to install CF ISO 500+ replacing CF-F 750 GV. Should you have further information or support, please do not hesitate to contact us at 8228-8118.

Yours Faithfully,



Sabrina Chow
Senior Marketing Specialist

1 Identification

Product identifier

Trade name: **CF-AS CJP; CF ISO 765; CF ISO 500+; CF-I ECO +; CS-F JS; CF 812 CC; CF-F ECO; CF-I 50 ECO GV; CF 125-50; CF 125-5W50; CF 126-N; CF 126; CF ISO 750; CF-I 750 B2 (-SV); CF 116-45; CF F 600; CF 116; CF-JI; CF 812; CF 812 WD; CF-I 65 ECO**

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

Sector of Use Building and construction work

Application of the substance / the mixture

Assembly foam

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:

see section 16

chemicals.hse@hilti.com

Emergency telephone number:

Chem-Trec

Tel.: 1 800 424 9300

Tox Info Suisse - 24 h Service

Tel.: 0041 / 44 251 51 51 (international)

2 Hazard(s) identification

Classification of the substance or mixture

Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurized container: May burst if heated.

Acute Tox. 4 H332 Harmful if inhaled.

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Carc. 2 H351 Suspected of causing cancer.

STOT SE 3 H335 May cause respiratory irritation.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xn; Harmful

R20-40-48/20: Harmful by inhalation. Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Xn; Sensitising

R42/43: May cause sensitization by inhalation and skin contact.

Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.

F+; Extremely flammable

R12: Extremely flammable.

Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Warning! Pressurized container.

Label elements

GHS label elements

Hazard pictograms



GHS02

GHS07

GHS08

Signal word

Hazard-determining components of labeling:

4,4'-diphenylmethanediisocyanate, isomers and homologues

Hazard statements

H222-H229 Extremely flammable aerosol. Pressurized container: May burst if heated.

H332 Harmful if inhaled.

H315 Causes skin irritation.

(Contd. on page 2)



Safety Data Sheet

acc. to ISO 11014

Printing date 05/19/2015

Version number 5

Reviewed on 05/19/2015

(Contd. of page 1)

- H319 Causes serious eye irritation.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H317 May cause an allergic skin reaction.
- H351 Suspected of causing cancer.
- H335 May cause respiratory irritation.
- H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P211 Do not spray on an open flame or other ignition source.
- P251 Pressurized container: Do not pierce or burn, even after use.
- P260 Do not breathe dust/fume/gas/mist/vapors/spray.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P302+P352 If on skin: Wash with plenty of water.
- P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Classification system

NFPA ratings (scale 0-4)



Health = 1
Fire = 4
Reactivity = 1

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

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture consisting of the following components.

Dangerous components:

9016-87-9	4,4'-diphenylmethanediisocyanate, isomers and homologues	Xn R20-40-48/20; Xn R42/43; Xi R36/37/38	>25%
13674-84-5	Tris(1-chloro-2-propyl)phosphate	Xn R22 R52/53	10-25%
75-28-5	isobutane	F+ R12	5-15%
106-97-8	butane, pure	F+ R12	5-15%
115-10-6	dimethyl ether	F+ R12	5-15%
74-98-6	propane liquefied	F+ R12	5-15%

- 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
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- After inhalation Supply fresh air; consult doctor in case of complaints.
- After skin contact Treat affected skin with cotton wool or cellulose. Then wash and rinse thoroughly with water and a mild cleaning agent.
- After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.
- Information for doctor
- Most important symptoms and effects, both acute and delayed Allergic reactions
- 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
Formation of toxic gases is possible during heating or in case of fire.
Can form explosive gas-air mixtures.
- Advice for firefighters
- Protective equipment:
Wear self-contained respiratory protective device.
Mount respiratory protective device.

(Contd. on page 3)

US

(Contd. of page 2)

· **Additional information** Cool endangered receptacles with water spray.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
 - Wear protective clothing.
 - Ensure adequate ventilation
 - Keep away from ignition sources
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
 - Allow to solidify. Pick up mechanically.
 - Dispose contaminated material as waste according to item 13.
 - Do not flush with water or aqueous cleansing agents
- **Reference to other sections**
 - See Section 7 for information on safe handling
 - See Section 8 for information on personal protection equipment.
 - See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling**
 - Keep receptacles tightly sealed.
 - Store in cool, dry place in tightly closed receptacles.
 - Keep away from heat and direct sunlight.
 - Ensure good ventilation/exhaustion at the workplace.
 - Open and handle receptacle with care.
- **Information about protection against explosions and fires:**
 - Don't spray on a naked flames or any incandescent material
 - Keep ignition sources away - Do not smoke.
 - Protect against electrostatic charges.
 - Contents under pressure. Do not store in direct sunlight. Do not store above 100°F. Do not open or burn even after use.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
 - Store in a cool location.
 - Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
 - Protect from heat and direct sunlight.
 - Store receptacle in a well ventilated area.
 - Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.
- **Storage class 2 B**
- **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:**

75-28-5 isobutane

TLV Short-term value: 2370 mg/m³, 1000 ppm

106-97-8 butane, pure

REL Long-term value: 1900 mg/m³, 800 ppm

TLV Short-term value: 2370 mg/m³, 1000 ppm

115-10-6 dimethyl ether

WEEL Long-term value: 1000 ppm

74-98-6 propane liquefied

PEL Long-term value: 1800 mg/m³, 1000 ppm

REL Long-term value: 1800 mg/m³, 1000 ppm

TLV refer to Appendix F: minimal oxygen content

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment**

- **General protective and hygienic measures**

Do not eat, drink, smoke or sniff while working.
 Keep away from foodstuffs, beverages and feed.
 Wash hands before breaks and at the end of work.
 Avoid contact with the eyes and skin.
 Immediately remove all soiled and contaminated clothing
 Do not inhale gases / fumes / aerosols.

(Contd. on page 4)

US

(Contd. of page 3)

Breathing equipment:

- Not necessary if room is well-ventilated.
- Use suitable respiratory protective device in case of insufficient ventilation.

Recommended filter device for short term use:

Filter AX
EN 371

Protection of hands:



Protective gloves.

EN 374

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
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 Value for the permeation: Level ≤ 60

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:	Aerosol
Color:	Different according to coloring
Odor:	Characteristic
Odour threshold:	Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range:	Not determined.
Boiling point/Boiling range:	<35 °C (<95 °F)

Flash point: <0 °C (<32 °F) (DIN 53213)

Flammability (solid, gaseous) Not applicable.

Ignition temperature: 235 °C (455 °F)

Decomposition temperature: Not determined.

Auto igniting: Product is not selfigniting.

Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

Explosion limits:

Lower:	1.5 Vol %
Upper:	11 Vol %

Vapor pressure: Not determined

Density: Not determined

Relative density: Not determined.

Vapour density: Not determined.

Evaporation rate: Not applicable.

Solubility in / Miscibility with

Water: Not miscible or difficult to mix

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

dynamic:	Not determined.
kinematic:	Not determined.

(Contd. on page 5)

US

(Contd. of page 4)

Other information

CF 116 - VOC Content: 2.1 g/l (EPA Method 24)
CF 812 - VOC Content: 2.4 g/l (EPA Method 24)
CF-AS CJP - VOC Content: 0.012 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**
Reacts with alcohols, amines, aqueous acids and alkalis
Danger of bursting
- **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:**

LD/LC50 values that are relevant for classification:

9016-87-9 4,4'-diphenylmethanediisocyanate, isomeres and homologues

Oral	LD50	>5000 mg/kg (rat)
Inhalative	LC50/4h	0.49 mg/l (rat)

13674-84-5 Tris(1-chloro-2-propyl)phosphate

Oral	LD50	1150 - 1750 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)
Inhalative	LC50/4h	>5 mg/l (rat)

74-98-6 propane liquefied

Inhalative	LC50/4h	513 mg/l (rat)
------------	---------	----------------

115-10-6 dimethyl ether

Inhalative	LC50/4h	308 mg/l (rat)
------------	---------	----------------

75-28-5 isobutane

Inhalative	LC50/4h	>50 mg/l (rat)
------------	---------	----------------

106-97-8 butane, pure

Inhalative	LC50/4h	658 mg/l (rat)
------------	---------	----------------

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:**
Sensitization possible through inhalation.
Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful
Irritant

IARC (International Agency for Research on Cancer)

9016-87-9	4,4'-diphenylmethanediisocyanate, isomeres and homologues	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:

13674-84-5 Tris(1-chloro-2-propyl)phosphate

EC50/48h	65 - 335 mg/l (magna daphnia)
EC50/72h	45 mg/l (Algae)
EC50/96h	56.2 mg/l (fish)

9016-87-9 4,4'-diphenylmethanediisocyanate, isomeres and homologues

EC50/96h	>1000 mg/l (fish)
----------	-------------------

115-10-6 dimethyl ether

EC50/96h	>1000 mg/l (fish)
----------	-------------------

(Contd. on page 6)

US

(Contd. of page 5)

74-98-6 propane liquefied

EC50/96h >1000 mg/l (fish)

- **Persistence and degradability** Based on previous experience, this product is inert and non-degradable.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** Does not accumulate in organisms
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Do not allow undiluted product or large quantities of it 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**
After curing, the product can be disposed of with household waste.
Full or only partially emptied cartridges must be disposed of as special waste in accordance with official regulations.

· European waste catalogue:

08 04 09*	waste adhesives and sealants containing organic solvents or other dangerous substances
20 01 27*	paint, inks, adhesives and resins containing dangerous substances

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

14 Transport information

- **UN-Number**
- **DOT, ADR, IMDG, IATA** UN1950
- **UN proper shipping name**
- **DOT** Aerosols, flammable
- **ADR** 1950 Aerosols
- **IMDG** AEROSOLS
- **IATA** AEROSOLS, flammable

· Transport hazard class(es)

· DOT



- **Class** 2.1
- **Label** 2.1

· ADR



- **Class** 2 - 5F Gases
- **Label** 2.1

· IMDG, IATA



- **Class** 2.1
- **Label** 2.1

· Packing group

- **DOT, ADR, IMDG, IATA** Void

· Environmental hazards:

- **Marine pollutant:** No
- **Special marking (ADR):** None
- **Special marking (IATA):** None

(Contd. on page 7)

US

(Contd. of page 6)

· Special precautions for user	Warning: Gases
· Danger code (Kemler):	Void
· EMS Number:	F-D,S-U
· Segregation groups	None
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· IATA	
· Remarks:	Packing Instruction No. 203
· UN "Model Regulation":	UN1950, Aerosols, 2.1

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):

9016-87-9 | 4,4'-diphenylmethanediisocyanate, isomeres and homologues

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65:

· Chemicals known to cause cancer:

None of the ingredients are listed.

· Cancerogenity categories

· EPA (Environmental Protection Agency)

9016-87-9 | 4,4'-diphenylmethanediisocyanate, isomeres and homologues

CBD

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· MAK (German Maximum Workplace Concentration)

9016-87-9 | 4,4'-diphenylmethanediisocyanate, isomeres and homologues

4

· 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

- R12 Extremely flammable.
- R20 Harmful by inhalation.
- R22 Harmful if swallowed.
- R36/37/38 Irritating to eyes, respiratory system and skin.
- R40 Limited evidence of a carcinogenic effect.
- R42/43 May cause sensitization by inhalation and skin contact.
- R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

· 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 / 4

· 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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

(Contd. on page 8)

US



(Contd. of page 7)

Flam. Aerosol 1: Flammable aerosols, Hazard Category 1
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Carc. 2: Carcinogenicity, Hazard Category 2
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
· * **Data compared to the previous version altered.**

US



CF125-50 INSULATING FOAM SEALANT