

HILTI CP 601S Elastomeric Firestop Sealant

The enclosed pages are taken from the
Hilti Firestop Systems Manual
Edition April 2011
Supported by additional standard details

For Material Safety data sheets
visit the technical library at www.hilti.co.uk/cfs

<p>Hilti (Gt Britain) Ltd TECHNICAL ADVISORY SERVICE TELEPHONE 0161 886 1144</p>

Quality Management System Certification

Standard: ISO 9001:2008

Issued by: The Swiss Association for Quality and Management Systems SQS.

Registration No: 12455 (The current certificate can be downloaded from www.hilti.co.uk)

Field of activity: Market Organisation.

Note: The certificate of Hilti (Gt. Britain) Ltd. is a sub-certificate to the master certificate of Hilti Aktiengesellschaft, FL-9494 Schaan with the field of activity: Research, Development, Manufacturing, Sales and Service.

Don't just use Hilti Firestop Products, use our Hilti Accredited Firestop Contractors

It is the combination of a quality conscious and third party accredited manufacturer working in close co-operation with a selected group of third party accredited installers that can offer you the best value.

Here are some of the benefits available to you by using this co-operation:-

- Reduce your liability; liability that comes from poor or incorrect installation and performance of products.
- Efficient Project Management based on the co-operation of a specialised manufacturer with a specialist contractor
- Commercially designed, effective Fire Protection solutions
- Products that adhere to 3rd party product conformity schemes such as FM, UL and Certifire.

These approvals are an assurance of product and manufacturer quality, they can also have an influence on the building insurance premium reducing the service costs of the building.

- Solutions that have been tested for long term performance.
- Solutions that offer business continuity and protections of premises.
- Certification of conformity of work completed.
- Installation work audited by FIRAS on site to ensure compliance with manufacturers' recommendations and Building regulations.
- Installer with site based manufacturer support.
- Installer having available site based manufacturers support when needed.
- Clear and comprehensive documentation of installation.
- Comprehensive support documentation for proposed solutions.
- Clarity and assistance understanding the role of Passive Fire measures in modern building construction.



Product Accreditation

Hilti Firestop Systems have been certified by a wide variety of international bodies, such as FM, UL, Certifire and iBMB

As part of this process products are monitored on an on-going basis so you can have absolute confidence in the quality and standard of the product you are specifying.

Installation Accreditation

Hilti-Accredited Firestop Contractors are also third party certified (e.g. FIRAS or LPCB).

This means that they work to agreed industry standards, employ trained operatives and are subject to on-site audits and inspection of representative samples of the work carried out to ensure compliance with manufacturers' recommendations and Building Regulations

Further details about Hilti accredited Firestop Contractors and the support that we can offer you can be obtained by telephoning Freephone 0800 083 8889 (GB only).



Association for Specialist Fire Protection

Hilti is proud to support and be a member of The Association for Specialist Fire Protection (ASFP)

ASFP Vision

To offer the industry it serves with:

- Knowledge / guidance on all aspects of 'built-in' fire protection
- Technical support / impartial advice
- Direction through industry authority

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	Hilti Firestop Systems Manual Pages for Hilti CP 601S
FS 057 - 01	Hilti CP 601S Metal pipe – Solid Floor
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FS 070 - 01	Hilti CP 601S Metal pipe – Hollow Core Floor
FS 081 - 01	Hilti CP 601S Insulated Steel Duct Solid Wall
FS 090 - 02	Hilti CP 601S Linear Joint Seal
Data summary	Additional Properties of CP 601S seals
Data summary	CP 601S-Fire Rated Sealant – BREEAM Criteria summary

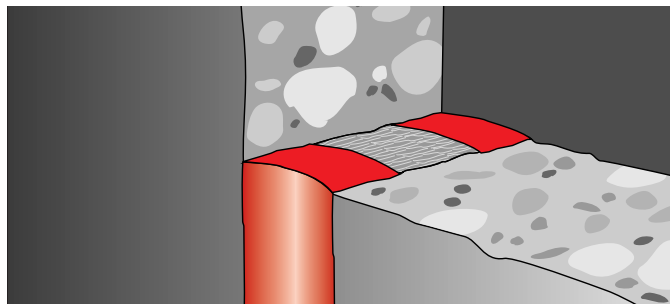
Material Safety Data Sheets and CAD files of the standard details FS ***-** can be downloaded from the technical library at www.hilti.co.uk/cfs

Revision History

May 2011	First release
June 2011	Update to FS 090-02
July 2011	Data Summaries added
May 2013	Update

Elastic firestop sealant CP 601S

Elastic firestop sealant that provides maximum movement in fire rated applications



Applications

- Expansion joints
- HVAC penetrations
- Metal pipes (allows movement)
- Top of wall joints
- Joint widths from 6-150mm with mineral wool backing
- Joint widths up to 50mm with PE rod or CF-125-50 foam backing

Advantages

- Good adhesion without use of a primer
- Smoke, gas and water tight
- Excellent movement capability (+/- 25%)
- Unlimited linear length approved
- Halogen and solvent free
- Weather and UV resistant

British Standard
BS 476

EN 1366-4
ISO 11600



Technical data

CP 601S	
Fire rating	Up to 4 hours
Base materials	Masonry, Metal, Concrete, Glass
Chemical basis	Silicone
Application temperature range	5°C - 40°C
Acoustics performance	Up to 58dB
Density	1.50 g/cm³
Colour	White
Skin forming time (at 23°C/50% r.H)	15 min
Air Leakage Rating	0 Permeability

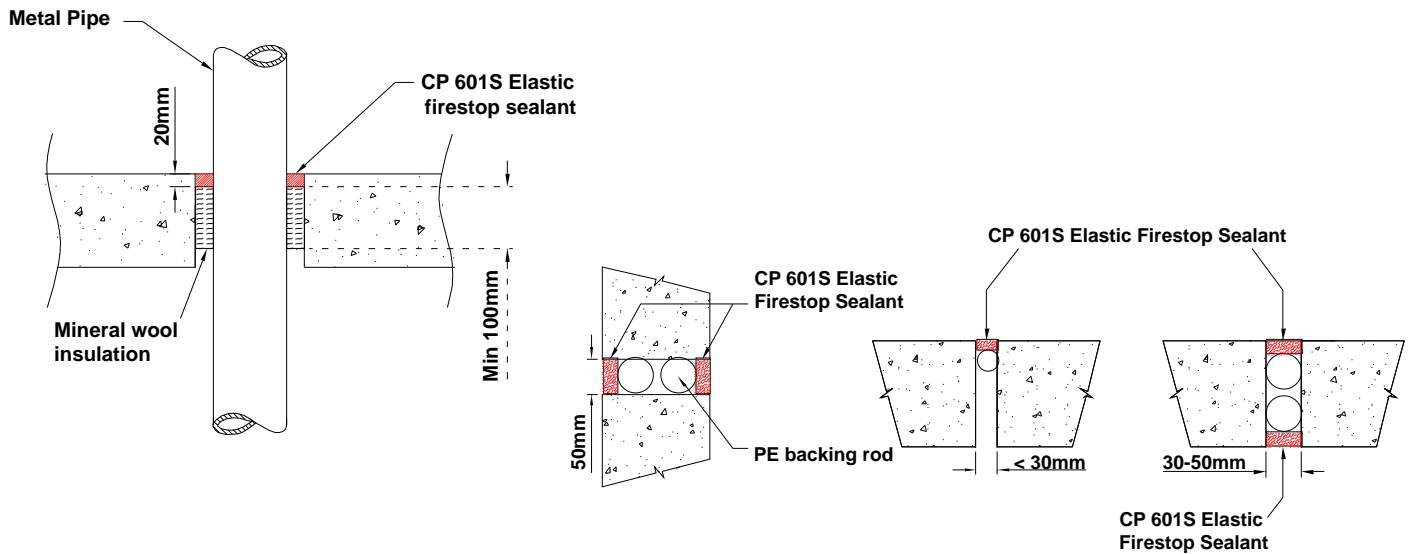
Max. joint width	Base material	Backfilling	Fire rating per BS 476	
			Insulation	Integrity
15 mm	Gas concrete	Mineral wool	4h	4h
30 mm	Gas concrete	Mineral wool	4h	4h
100 mm	Gas concrete	Mineral wool	4h	4h
10 mm	Masonry wall	PE Rod	4h	4h
30 mm	Masonry wall	PE Rod	4h	4h
50 mm	Masonry wall	PE Rod	4h	4h
10 mm	Concrete floor	PE Rod	4h	4h
30 mm	Concrete floor	PE Rod	4h	4h
50 mm	Concrete floor	PE Rod	4h	4h

Ordering

Order description	Package Contents	Package Quantity	Item number
Firestop sealant CP 601S 310ML white	20 x firestop sealant white (310ml)	20 pc	00310633
Firestop sealant CP 601S 310ML grey	20 x firestop sealant grey (310ml)	20 pc	00310635
Firestop sealant CP 601S 310ML anth	20 x firestop sealant anthracite (310ml)	20 pc	00310634
Dispenser CB 200-P1	manual dispenser (310ml)	1 pc	00055205

Each box of 20, 580ml foils come with 4 nozzles which are reusable with the dispenser.

Technical Information



	Wall (mm)	Floor (mm)
Joint width min.	10	10
Joint width max.	50	30-50
Joint depth	20	20
Min. thickness of building component	100	120
Max. pipe Ø	160	160
Base material	Concrete, Masonry, Glass, Metal	
Mineral wool	Min. 100kg/m³	
Metal pipe	Clean, dry and free from grease and oil	
CP 601S	Apply both sides	

For more standard details and technical information register online at the Hilti Firestop Design Centre at www.hilti.co.uk/cfs

Installation instructions for CP 601S

Notice

- Before handling, read Material Safety Data Sheet and product label for safe usage and health information.
- Instructions below are general guidelines

Opening

- Clean the opening. Surfaces to which CP 601S 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

- Insert fill of mineral wool (or backer as required).
- Apply firestop over backer.
- Smooth firestop sealant with a trowel before the skin forms. Once cured, CP 601S can only be removed mechanically.
- For maintenance reasons, a penetration seal can be permanently marked with an identification plate and fastened in a visible position next to the seal.

Chemical resistance

- At room temperature the cured silicone sealant is resistant for a short time to diluted (15%) acids and lyes/alkalis as well as most commercially available cleaning agents and disinfectants (except those containing iodine)

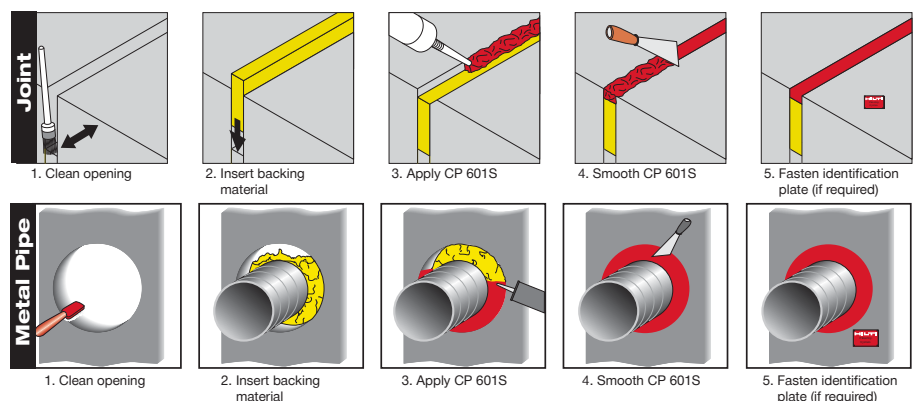
- Concentrated acids and lyes/alkalis destroy silicone rubber over time.
- Solvents and mineral oils cause cured silicone to swell. Consequently, proper functioning of the sealant should be checked after exposure to a solvent or mineral oil. Please contact your local sales representative or the nearest Hilti center if special requirements for chemical resistance have to be met.

Not for use

- In areas immersed in water
- Not to be painted

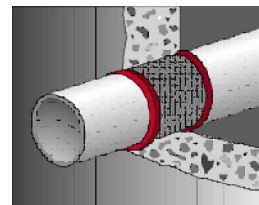
Storage

- Store only in the original packaging in a location protected from moisture at a temperature of 5°C to 25°C
- Observe expiry date on package



Hilti CP 601S Elastic Firestop Sealant

APPLICATION



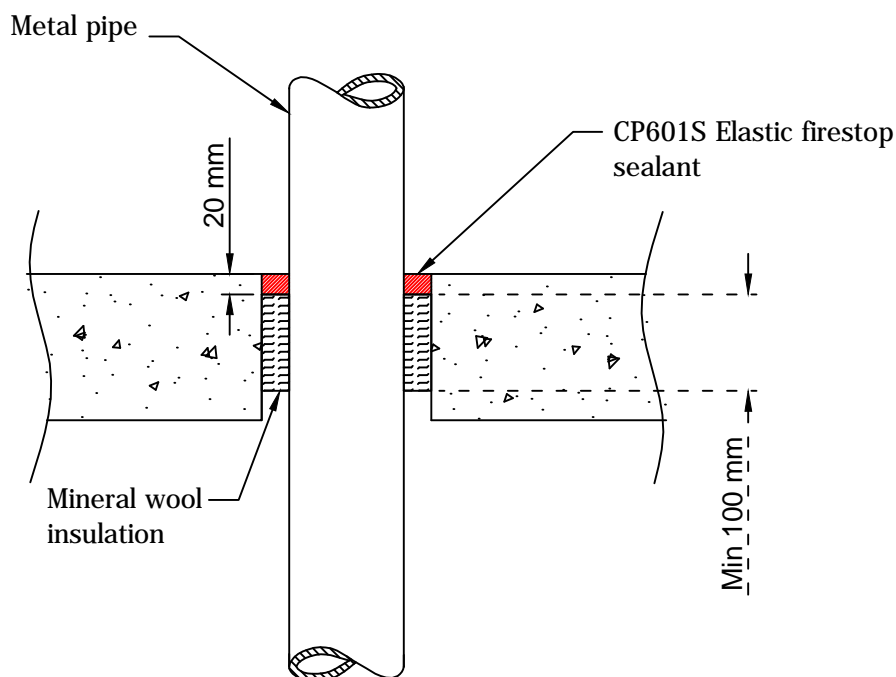
Metal pipe
passing through

Solid floor

Test	Up to
Fire Integrity	4 hr
Acoustics	58dB
Air Tightness	J
Age Testing	30 years

Approvals
BS476 pt 20
BSEN 1366-3
FM approved

Metal pipes up to 200mm diameter



The above applications are not exhaustive. For further details please contact

1. The application limits on this detail are for guidance purposes only. For more detailed information on the full range of available test results please contact a Hilti Firestop Specialist on 0800 886100.
2. The product and application has been fire tested as a minimum to BS 476. It may have additional European and worldwide testing. Please contact Hilti for further information.
3. All installations should be carried out in accordance with Hilti's installation instructions, by competent, experienced installers using Hilti branded products.

13.05.13

Drawn by

A Brockett

FS

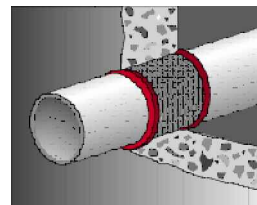
057

Issue

02

Hilti CP 601S Elastic Firestop Sealant

APPLICATION



Metal pipe

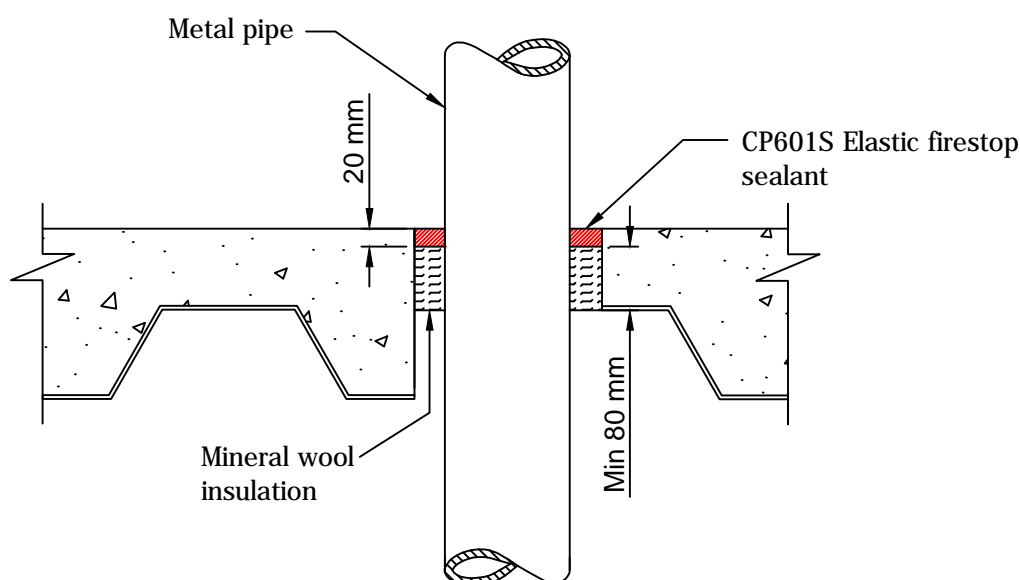
passing through

Metal deck

Test	Up to
Fire Integrity	2 hr
Air Tightness	J
Age Testing	30 Years

Approvals
BS476 pt 20
BSEN 1366-3
FM approved

Metal pipes up to 200mm diameter



This application requires a job-specific engineering judgement.
Please contact Hilti for advice

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A Brockett

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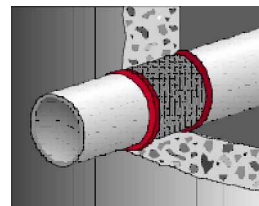
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Issue

02

Hilti CP 601S Elastic Firestop Sealant

APPLICATION



Metal pipe

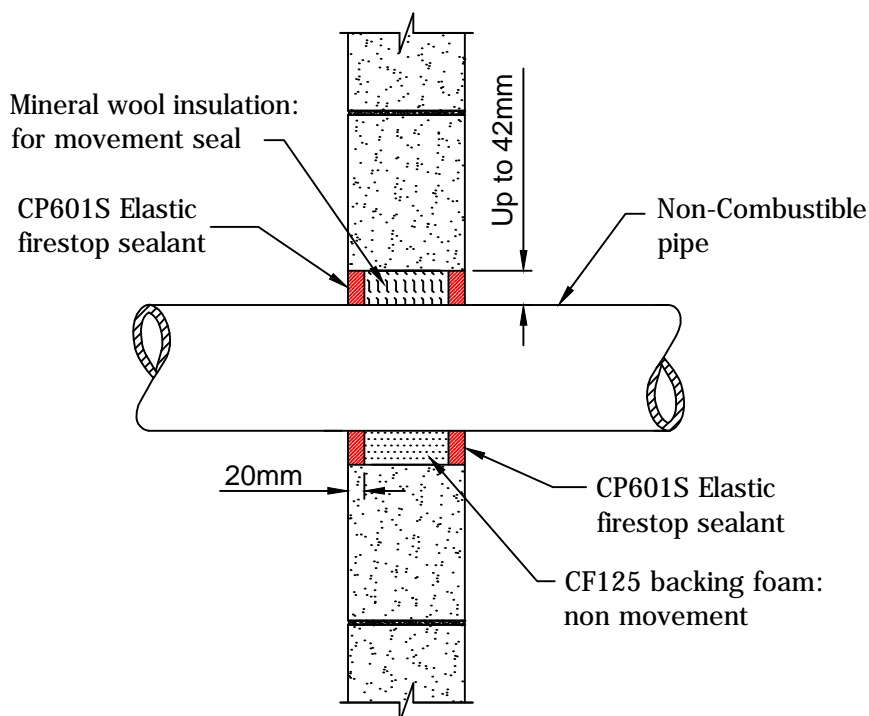
passing through

Solid wall

Test	Up to
Fire Integrity	4 hr
Acoustics	58dB
Air Tightness	J
Age Testing	30 years

Approvals
BS476 pt 20
BSEN 1366-3
FM approved

Metal pipes up to 200 mm diameter



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03.01.08

Drawn by

R. Wakefield

FS

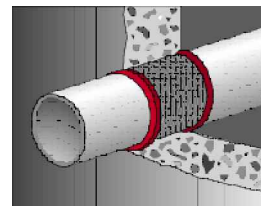
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Issue

01

Hilti CP 601S Elastic Firestop Sealant

APPLICATION



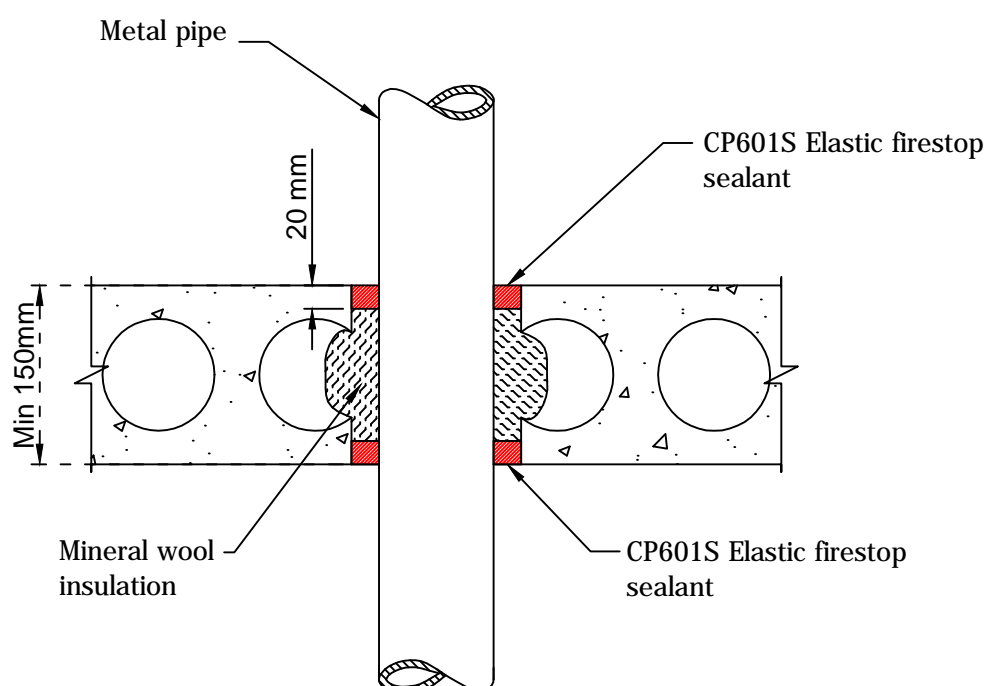
Metal pipe

passing through

Hollow core slab

Test	Up to
Fire Integrity	4 hr
Acoustics	58dB
Air Tightness	J
Age Testing	30 years

Approvals
BS476 pt 20
BSEN 1366-3
FM approved



This application requires a job-specific engineering judgement.
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13.05.13

Drawn by

A Brockett

FS

070

Issue

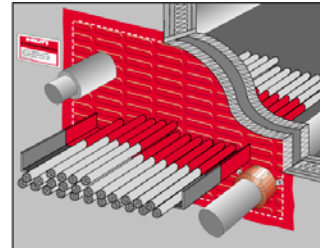
02

Hilti CP 601s Elastic firestop sealant

Test	Up to
Fire Integrity	2 hr
Insulation	2 hr
Air Tightness	✓
Age Testing	30 years

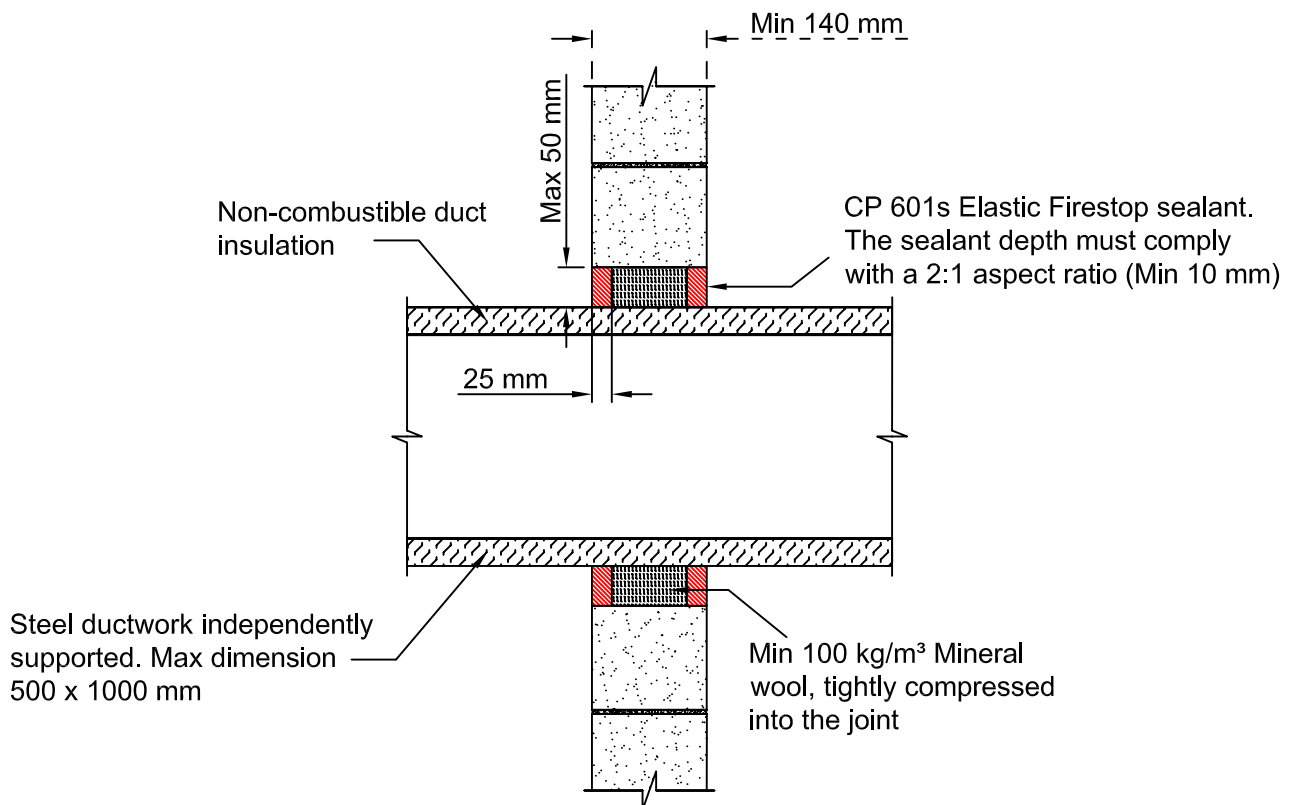
Approvals
EN 1366-3
FM Approval

APPLICATION



Insulated Steel duct passing through

Solid wall



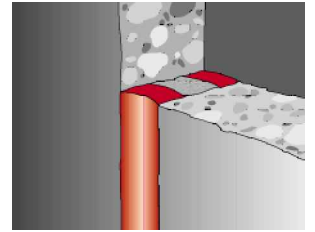
The performance of the Fire Rated Duct system must be proven by test to be capable of achieving the required fire rating of the seal system - up to 120 minutes Fire Performance.

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Hilti CP 601S Elastic firestop sealant

APPLICATION

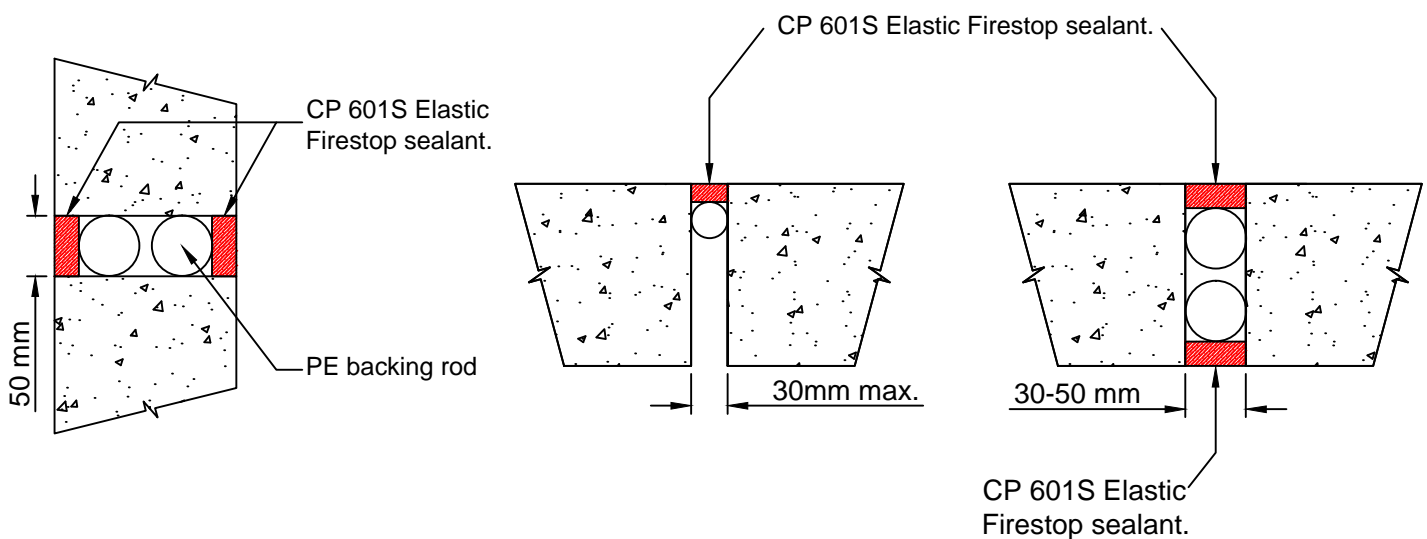


Linear joint
between

Solid wall and floor

Test	Up to
Fire Integrity	4 hr
Insulation	4 hr
Air Tightness	J
Age Testing	30 years

Approvals
BS476 pt 20
FM approved



Product	Gap width / mm	Seal depth / mm	Gap faces	Backing Material
CP 601S	> 0 - 15	6	AAC / AAC	PE rod or Mineral wool
CP 601S	15-30	15	AAC / AAC	PE rod or Mineral wool
CP 601S	30-50	20	AAC / AAC	PE rod or Mineral wool
CP 601S	50-100	15	AAC / AAC	Mineral Wool

Where the gap width exceeds 50 mm then mineral wool should be used as a backing material

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Additional Properties of CP 601S seals

Property	Test regime	Notes	
ETA	Linear Joint and Gap seals EN 1366-3 EN 1366-4 BS 476 - 20	ETA 10/0291 under the name CFS-S SIL Valid until 21.11.2015	
Fire tests	Certifire FM approval (Class 4990)		✓
Acoustic properties	EN ISO 20 140-10: 1992	Dnw	IAB Oberursel Cert no P43-A 46972en/3093 58 dB
Ageing tests	DAfSTB Fire test after ageing		✓ ✓
Air sealing	DIN 1026 Pressure difference 50Pa Pressure difference 200Pa		✓ ✓
Electrical resistance testing	Surface resistance Volume resistivity Insulator ISO 11600		✓ ✓ ✓ ✓
Movement	Fire test in accordance with UL2079 after dynamic loading Fire test in accordance with IBMB procedure		✓ ✓
Smoke sealing	?		?
Water resistance	Rain Resistance Mould and Mildew resistance Water tightness	ISO 846 UL 1479	✓ ✓ ✓
VOC	LEED 2009 (LEED 3.0)		3.0g/l
Chemical Resistance	Contact Hilti Technical Advisory Service with details of type, concentration, duration and ambient temperature of exposure conditions		
		✓	N.R Not relevant Meets standard

CP 601S-Fire Rated Sealant – BREEAM Criteria summary

BREEAM Section

Management construction site impact	No power tools required for installation (no energy source required)	✓
	Dust free installation	✓
	Saves water during application	✓
	No water pollution	✓
	Low VOC* (air quality)	✓
Health and wellbeing	No ozone depletion potential (ODP)	✓
	Low global warming potential (GWP)	✓
	Smoke and gas tightness	✓
	Noise reduction	✓
Energy	Air tightness	✓
	Avoidance of air infiltration	✓
Materials	Product Carbon Footprint or LCA Data	✓
	Thermal insulation	✓
	Recycling of packaging	✓
Waste	Reuse of materials	✗
	Re-penetration in existing opening (No waste)	✗
Product contributes to Green Building under this clause	✓	
Not applicable for this product	NA	
Product makes No contribution to green Building under this clause	✗	

Visit our web site at www.Hilti.co.uk/cfs to access our **Firestop Design Centre**

Penetration product selector	Other product features	Joints product selector
		
Interactive product selector for firestopping openings through walls and floors	Find out more about the benefits of using Hilti firestop systems	Interactive product selector for wall to wall, top of wall, curtain wall , floor to floor and floor to wall applications.

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A copy of these "Terms and Conditions of sale" is available on request.

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- shall be sent to the Company's premises at the Buyer's expense;
- may be subject to a handling charge of £10 or 20% Hilti Gt. Britain Ltd) of the value of the Goods, whichever amount is the greater; and
- Must be in the same condition as originally supplied to the Buyer.
- The Buyer may not cancel an order of the Goods including but without limitation, any Goods that involve special requirements of the Buyer once the order has been inputted onto the Company's ordering system, without the prior written consent of the Company.

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