

HILTI CP 636 Firestop Mortar

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

Contents

Hilti Firestop Systems Manual Pages for Hilti CP 636

FS 075 - 01	Hilti CP 636 - Plastic Pipe. – Solid Floor
FS 119 - 01	Hilti CP 636 – Damper in Masonry wall

Data summary	Additional Properties of CP 636 seals
Data summary	CP 636-Fire Rated mortar – BREEAM Criteria summary
Data summary	CP 636-Fire Rated mortar - NBS specification clauses

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
July 2011	Data summaries added
May 2013	Update

Firestop mortar (suitable for walls) CP 636

Fire resistant cement-based mortar with thermal insulating properties for fire stopping medium to large openings



Applications

- Cables and cable trays
- Ductwork dampers
- Metal pipes

Advantages

- Suitable for wall applications
- Excellent pot life / working time
- High yield
- Stiff (forms not always required)
- Contains no asbestos, phenol, or halogen constituents.
- Good adhesion to steel, concrete, and masonry
- Simple application by trowel
- paintable

British Standard
BS 476

EN 1366-3



Technical data

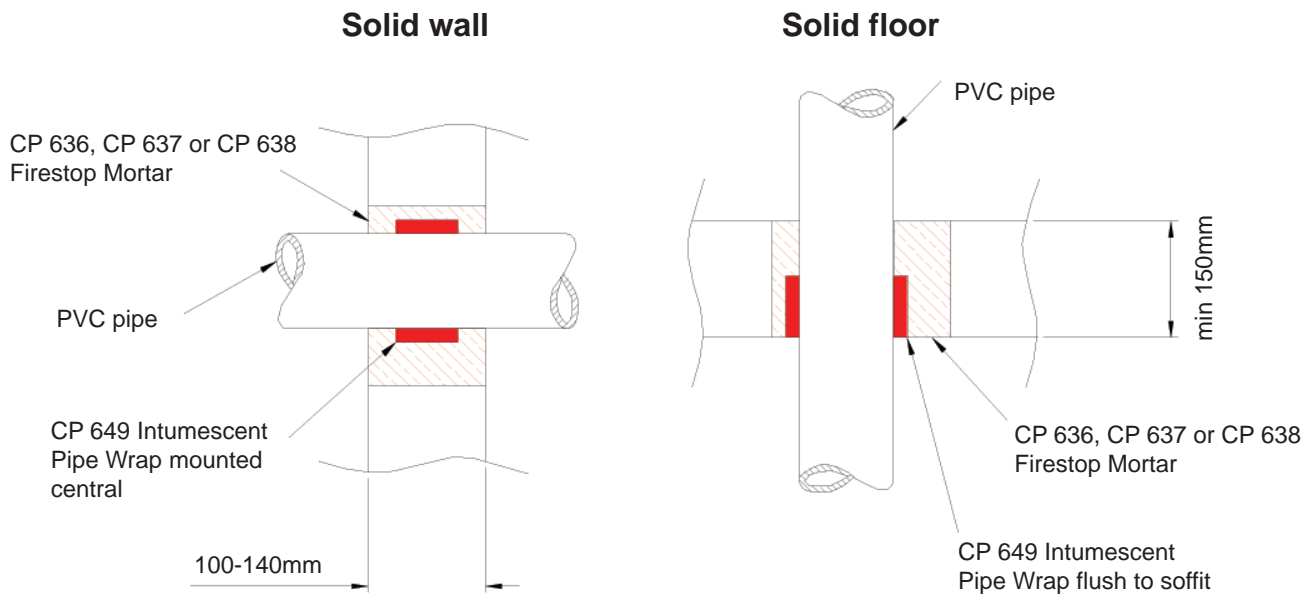
CP 636	
Fire rating	Up to 4 hours
Base materials	Concrete, Concrete (porous block), Masonry
Chemical basis	Concrete mortar with perlite
Application temperature range	5°C - 40°C
Colour	Grey
Acoustics performance	Up to 59dB
Air Leakage Rating	0.00047 m³/h (min)
Consumption	100kg per Sq metre for 100mm thick seal

	Wall	Floor with CP 611A included
Min. building component thickness	150 mm	100 mm
Max. opening size (width x height x length)	1200 x 2000 mm	600 x 600 mm
Min. distance from cable tray to opening	0 mm	0 mm
Min. distance between cables tray	40 mm	40 mm
Min. distance between openings	200 mm	200 mm
Re-installation possibility with CP 651 with CP 657 with CP 611 A	(max. opening) 250 x 170 mm 200 x 100 mm dia. ≤ 160 mm	
Max. cable loading (as % of pening size)	60%	60%

Ordering

Order description	Package Contents	Package Quantity	Item number
Firestop mortar CP 636 20KG	CP 636 firestop compound (20kg sack)	1 pc	00334897

Technical Information



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 636

Notice

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

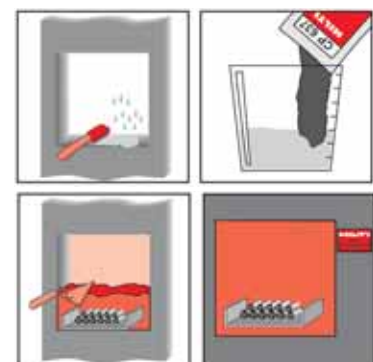
Application

- Preparation of the opening**
Clean and pre-moisten the opening sides. Cables and cable trays must be dry and free from dust, oil or grease. Cables must be laid and secured as stated in the respective standard.
- Mixing the firestop mortar**
Mix CP 636 firestop mortar in the mortar-to-water ratio of about 3:1 by volume. It is important that first water then CP 636 is poured into the bucket. Thoroughly mix small quantities using a drilling machine and mixer. It is important that no further binding agents or additives are used.

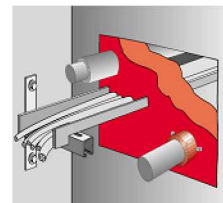
- Application of firestop mortar**
Forms should be placed on one or both sides of large openings. Openings in floors must have forming on the underside. Ready-mixed mortar should be applied with a trowel or pump and then compacted. Make sure that gaps, voids and remaining openings are completely closed and sealed. Smooth the surface like ordinary concrete.
- Follow-up installation/reworking**
CP 651 firestop cushions, CP 657 firestop bricks and CP 611 A intumescent mastic can be installed in the fire seal, while keeping in mind the maximum allowable size of the opening. Care must be taken to completely close any gaps, voids or remaining openings.

5. Identification plate

Some countries require the cable fire seal to be marked with a lasting identification plate. This plate must be given the appropriate wording and then fastened next to the cable fire seal in a clearly visible position.



Hilti CP 637 & CP 638 Structural Firestop Mortar

APPLICATION

Combustible Pipes

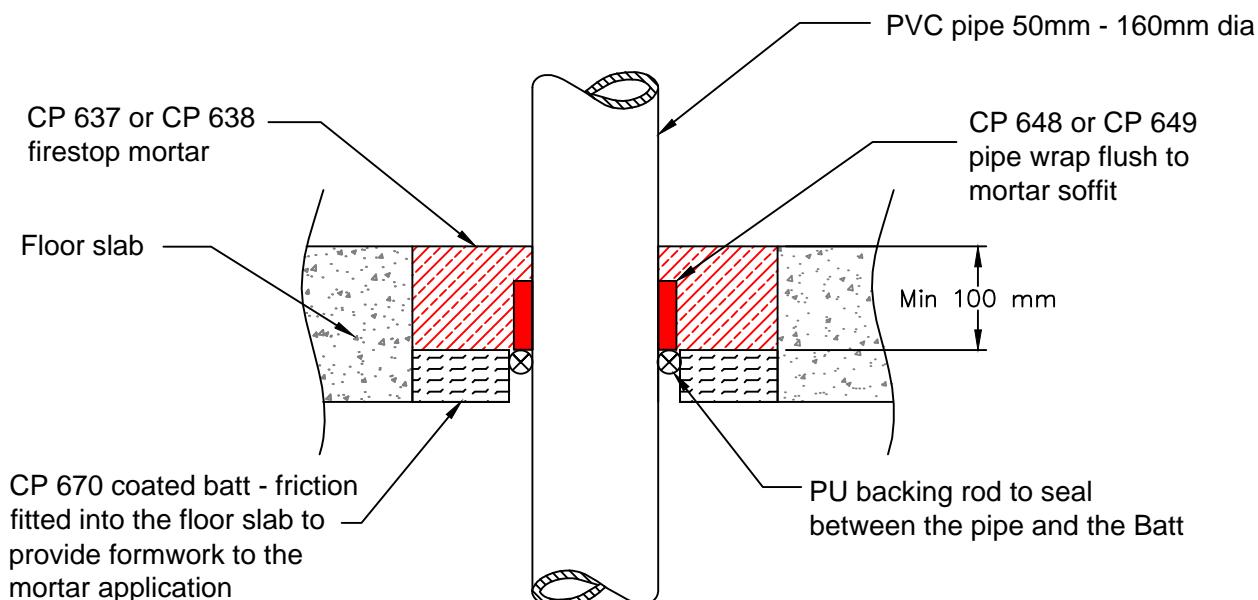
Through

Solid floor

Test	Up to
Fire Integrity	2 hr
Insulation	2 hr
Acoustics	50dB
Age Testing	30 Years

Approvals
BS476 pt 20
LUL

Solid floor


Notes:

The batt is designed to act as a sacrificial layer. In the event of a fire the PU backing rod is designed to allow the direct exposure of the wrap to heat to allow its activation.

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.

29.05.13

Drawn by

A Brockett

FS

075

Issue

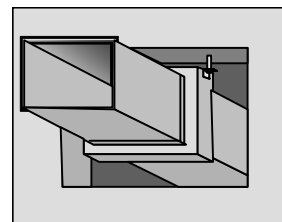
04

Hilti CP 636 Fire rated Mortar

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

Approvals
BS476 pt 20

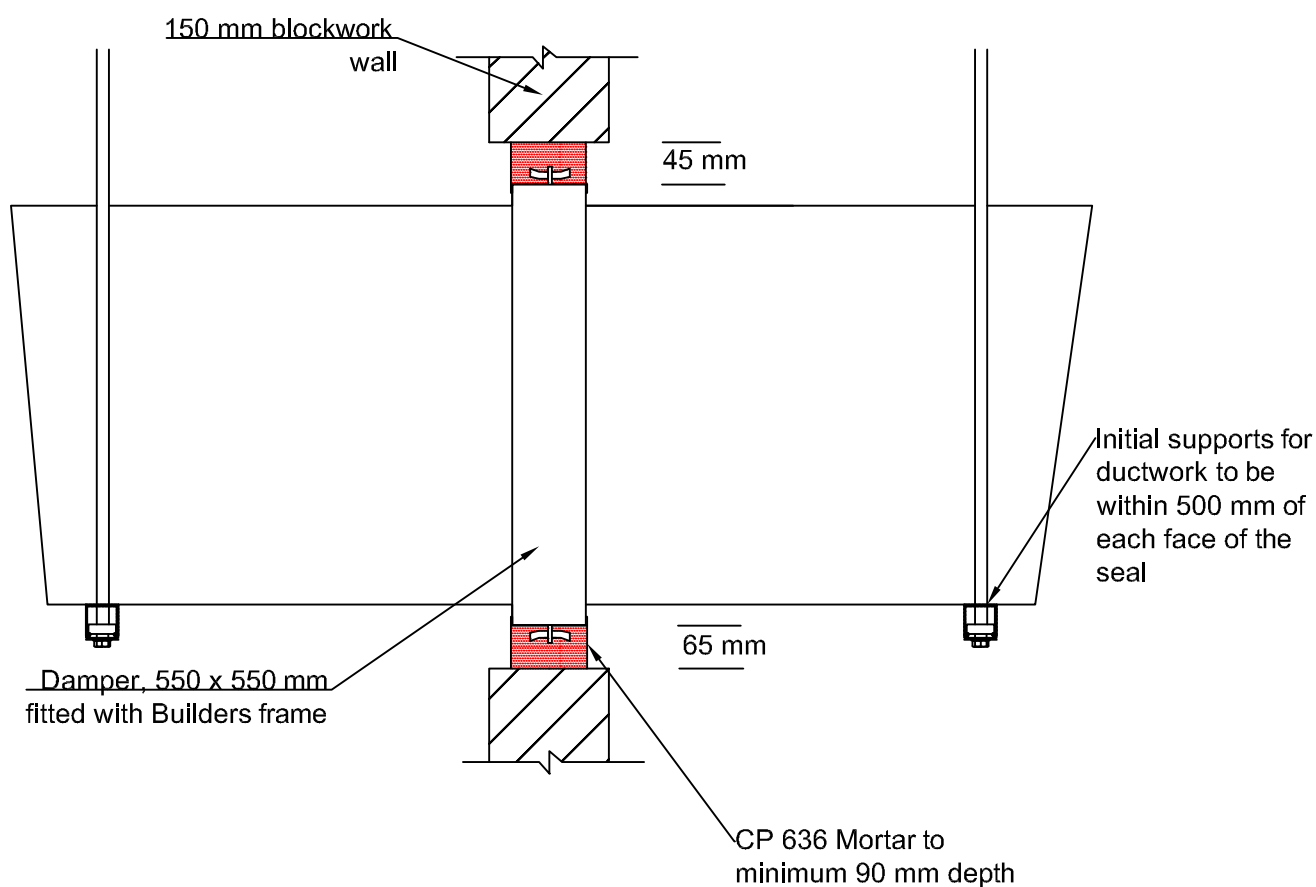
APPLICATION



Damper

in

Masonry wall



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Additional Properties of CP 636 Firestop mortar

Property	Test regime	Notes	
Fire	BS 476 - 20		✓
	BS EN 1366-3		pr EN
	FM approval (Class 4990)		✓
	ETA		
Acoustic	EN ISO 20 140-10: 1992	Dnw	59 dB
Ageing	DIBT		✓
	DAfSTB		✓
	Fire test after ageing		✓
Air sealing	DIN 1026		
	Pressure difference 50Pa		✓
	Pressure difference 200Pa		✓
	Pre sealing with Hilti Mastic/Mortar		
Electrical resistance	Surface resistance		✓
	Volume resistivity		✓
	Insulator		1088 Ohm-cm
Water resistance	Rain Resistance		✓
	Mold and Mildew resistance	ISO 846	Class 2-3
	Water tightness	UL 1479	N.R
VOC	LEED 2009	LEED 3.0	<1 g/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 636 - Firestop mortar - BREEAM criteria

BREEAM Section

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

CP 636 - Firestop mortar - NBS specification clauses

This page is to be used in conjunction with the NBS Specification clauses in the introduction to the Hilti Firestop Specifiers Binder.

340 INTUMESCENT MORTARS

- A fire resistant, gypsum based mortar with thermal insulating properties used to seal medium sized penetrations . Designed for use in walls and floors, in concrete, porous concrete and masonry.
- Tested to BS 476: Part 20, 1987 and EN 1366-3.
- Fire resistance 1 - 4 hours
- Manufacturer: Hilti (Gt Britain) Ltd, 1Trafford Wharf Road, Manchester M17 1BY, Tel no 0800 886 100, Fax 0800 886 200. Website www.hilti.com.uk.
- -Product reference: CP 636 Fire Resistant Compound

670 APPLYING FIRE RATED MORTAR

- Installers: use trained and 3rd party accredited installers as recommended by manufacturer of mortar
- Sequence: Install mortar after services have been permanently installed, allowing access to remote corners. Co-ordinate installation with mechanical and electrical service installers. Dampers to be fitted in line with floor or wall, with builders frames and to be held rigidly in position by adequate supporting framework
- Base material suitability: Remove loose builders material, degrease and ensure that opening bounded by suitable structural elements
- Shuttering: Install suitable shuttering panels to opening, providing adequate support for wet weight of mortar
- Support framework: Install support framework as recommended by manufacturer and in accordance with said manufacturer's recommendations where required
- Temperature: Do not apply mortar when it could be damaged by frost
- Powder : water ratio: To manufacturer's recommendations. Contractor to submit proposals and manufacturer's written instructions
- Mortar Cure: Do not disturb mortar before final set has taken place
- Load bearing: Only permit foot traffic after curing has taken place and only when manufacturer's written evidence has been provided to prove suitability
- Shuttering: Remove combustible shuttering after mortar has cured

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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- 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
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