

## **HILTI CP 611A**

### **Pressure exerting intumescent firestop mastic**

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](http://www.hilti.co.uk/cfs)

|   |
|---|
| <p><b>Hilti (Gt Britain) Ltd</b><br/><b>TECHNICAL ADVISORY SERVICE</b><br/><b>TELEPHONE 0161 886 1144</b></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](http://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 3<sup>rd</sup> 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 611A

|             |  |
|-------------|--|
| FS 006 - 01 | Hilti CP 611A Plastic Pipe max 40mm dia. – Solid Wall, Drywall |
| FS 046 - 02 | Hilti CP 611A PVC Pipe – Cables                                |
| FS 080 - 01 | Hilti CP 611A Plastic Pipe – Coated Batt                       |
| FS 085 - 01 | Hilti CP 611A Steel Trunking – Solid Floor                     |
| FS 086 - 01 | Hilti CP 611A Glass pipe – Solid Wall, Floor                   |
| FS 127 - 01 | Hilti CP 611A Cable penetration – solid floors                 |
| FS 129 - 01 | Hilti CP 611A Plastic pipe - solid floors                      |

|              |  |
|--------------|--|
| Data summary | Additional Properties of CP 611A seals               |
| Data summary | CP 611A-Fire Rated Sealant – BREEAM Criteria summary |

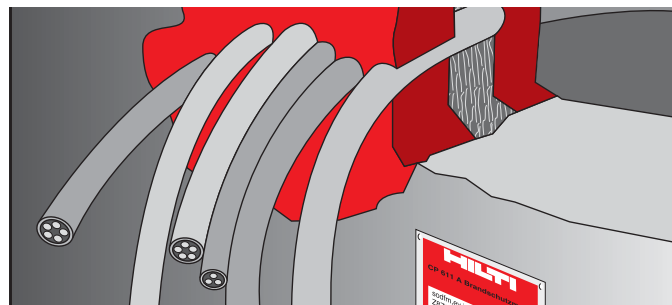
Material Safety Data Sheets and CAD files of the standard details FS \*\*\*-\*\* can be downloaded from the technical library at [www.hilti.co.uk/cfs](http://www.hilti.co.uk/cfs)

## Revision History

|            |   |
|------------|---|
| May 2011   | First release                             |
| July 2011  | Data summaries added, Updated FS 046 - 02 |
| March 2012 | FS 127 & FS 129 added.                    |
| May 2013   | Update                                    |

## Pressure exerting intumescent firestop mastic CP 611 A

High expansion intumescent protection



### Applications

- Permanent sealing of single and bunched cables
- Resealing penetrations formerly sealed with mortar
- Tested with PVC, PP, PE, HDPE and ABS
- Sealing around plastic pipes to 50mm (backed with mineral wool, PE rod or CF-125-50 foam)

### Advantages

- Easy to work with
- Paintable
- Particular suitable for laying new cables
- Can be used for outdoor applications
- Expansion pressure up to 7 Bar
- Expands in fire, protecting pipe and cable penetrations

### Technical data

| CP 611 A                               |   |
|--|---|
| Fire rating                            | Up to 4 hours                           |
| Base materials                         | Concrete, Brick, Masonry, Metal, Gypsum |
| Chemical basis                         | Water-based intumescent acrylate        |
| Application temperature range          | 5°C - 40°C                              |
| Acoustics performance                  | Up to 59dB                              |
| Density                                | 1.5 g/cm³                               |
| Colour                                 | Anthracite                              |
| Skin forming time<br>(at 23°C/50% r.H) | 15 min                                  |
| Air Leakage Rating                     | 0 Permeability                          |

British Standard  
BS 476

EN 1366



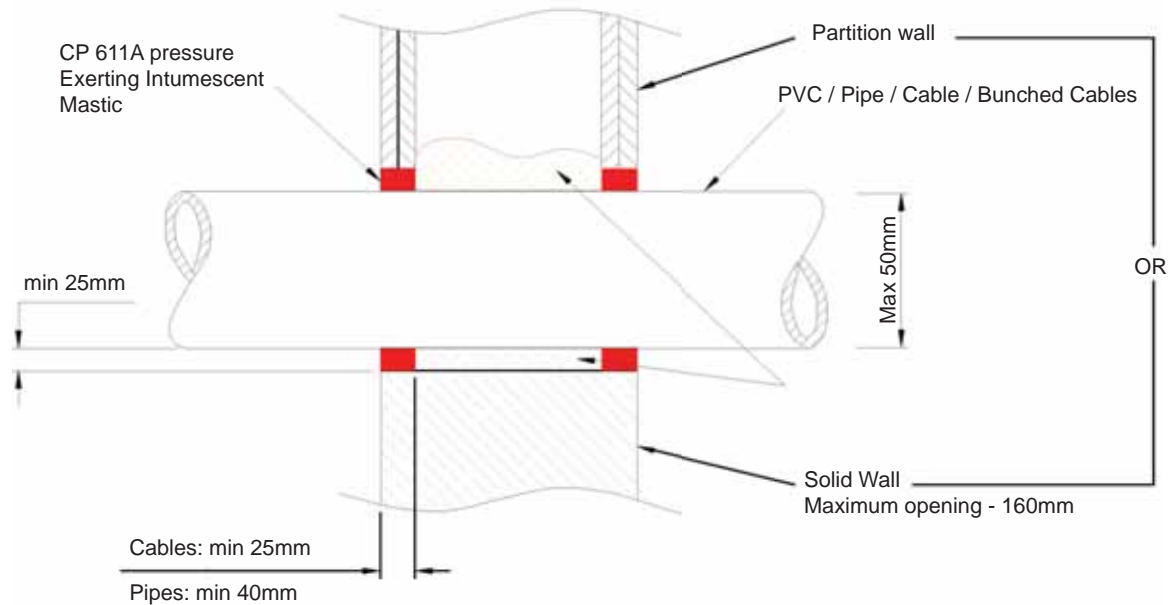
|   | Wall seal                | Floor seal               |
|---|--------------------------|--------------------------|
| Max. opening size<br>Diameter<br>Area   | 160 mm<br>300 cm²        | 160 mm<br>300 cm²        |
| Min. distance from cables<br>to edge of opening   | 10 mm                    | 10 mm                    |
| Min. distance to next opening   | 200 mm                   | 200 mm                   |
| Annular space around:<br>- Singles cables<br>- Bunched cables / inflammables<br>pipes (Ø ≤ 50 mm) | min. 20 mm<br>min. 25 mm | min. 20 mm<br>min. 25 mm |
| Max. cable loading<br>(as % of opening size)  | 60%                      | 60%                      |



### Ordering

| Order description           | Package Contents                 | Package Quantity | Item number |
|-----------------------------|----------------------------------|------------------|-------------|
| Firestop sealant<br>CP 611A | 20 x intumescent firestop mastic | 1 pc             | 00382848    |
| Dispenser CB 200-P1         | manual dispenser (310ml)         | 1 pc             | 00055205    |

## Technical Information



For more standard details and technical information register online at the Hilti Firestop Design Centre at [www.hilti.co.uk/cfs](http://www.hilti.co.uk/cfs)

## Installation instructions for CP 611A

### Notice

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

### Opening

1. 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

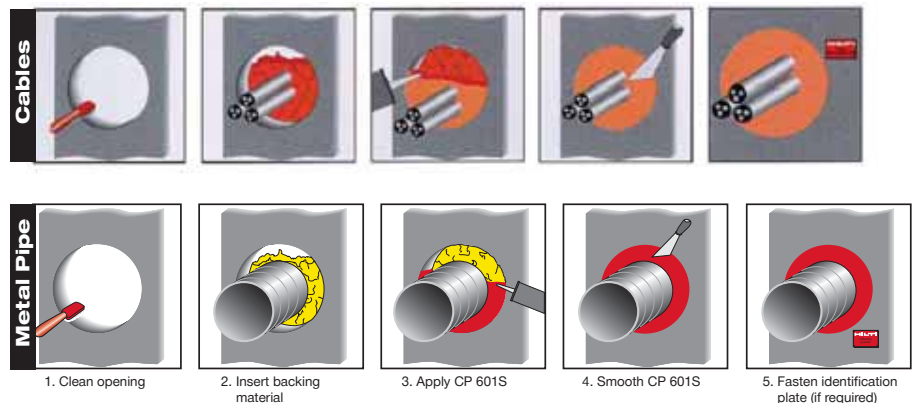
2. Insert fill of mineral wool (or backer as required).
3. Apply firestop over backer.
4. Smooth firestop sealant with a trowel before the skin forms. Once cured, CP 611A can only be removed mechanically.
5. For maintenance reasons, a penetration seal can be permanently marked with an identification plate and fastened in a visible position next to the seal.

### Not for use

- In areas immersed in water
- Not to be painted

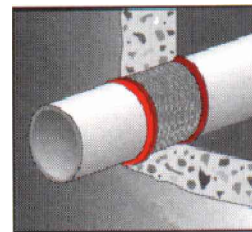
### Storage

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



# Hilti CP 611A High Pressure Intumescent Sealant

### APPLICATION



Plastic pipe  
passing through

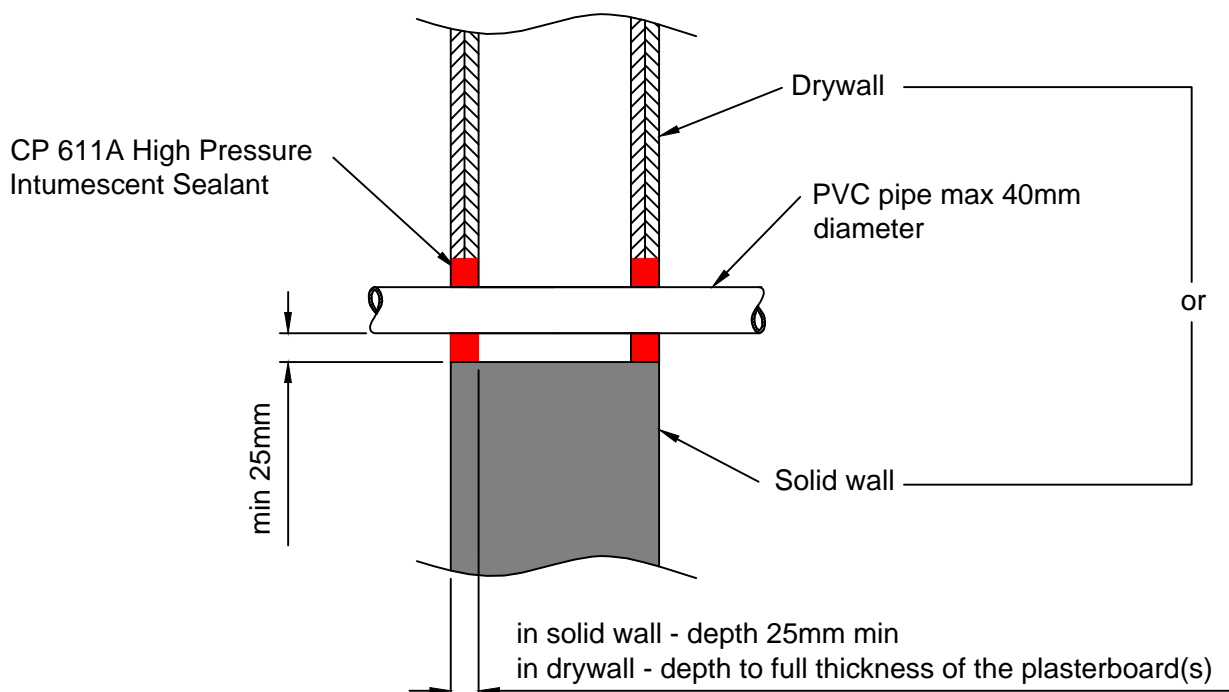
Drywall

Solid Wall

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

| Approvals          |
|--------------------|
| BS476 pt 20        |
| London Underground |
| Factory Mutual     |
|                    |
|                    |

PVC pipes up to 40mm 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

006

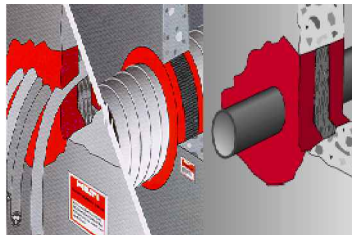
Issue

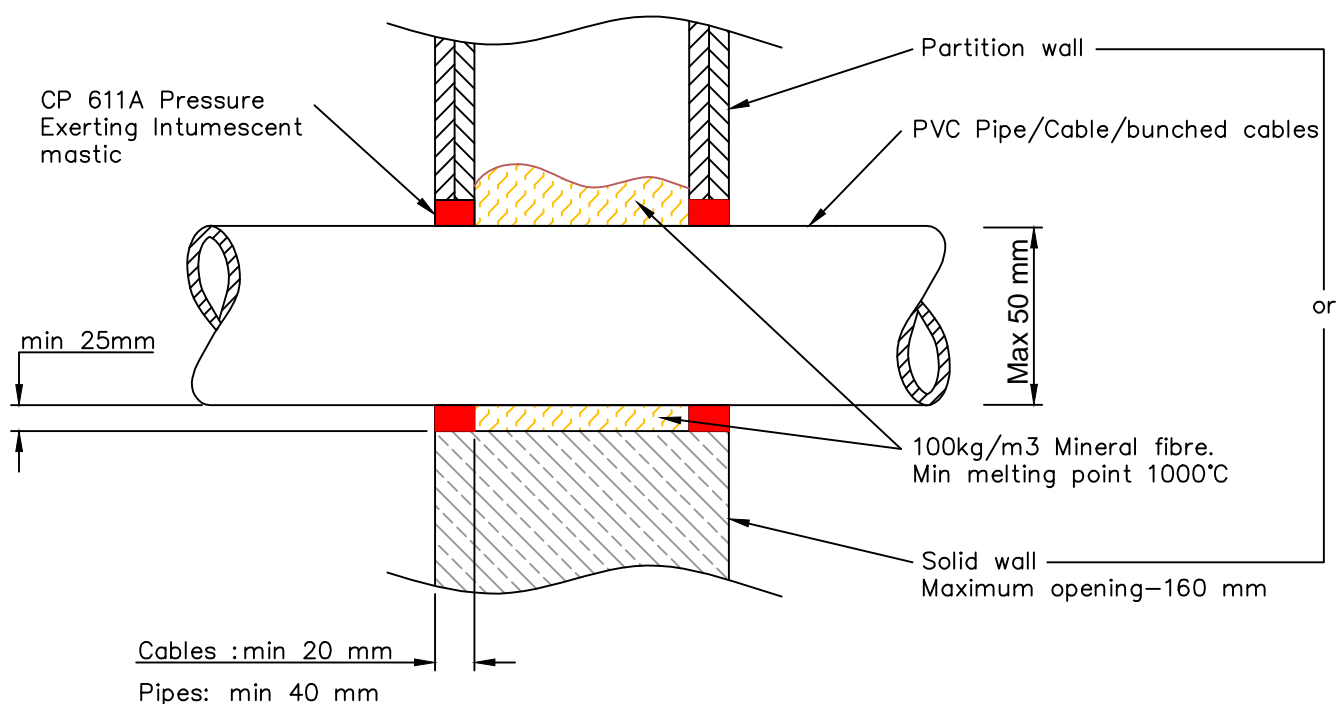
02

# Hilti CP 611A Pressure Exerting Intumescent Mastic

| Test           | Up to    |
|----------------|----------|
| Fire Integrity | 4 hr     |
| Insulation     | 4 hr     |
| Acoustics      | 59 db    |
| Air Tightness  | J        |
| Age Testing    | 30 years |

| Approvals          |
|--------------------|
| BS 476 pt 20       |
| BS EN 1366-3       |
| Factory Mutual     |
| London Underground |

| APPLICATION   |
|---|
|  |
| PVC Pipes, Cables   |
| Passing through   |
| Drywall   |
| Solid Wall  |



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

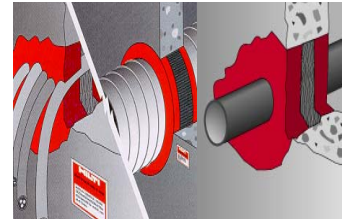
1. The application limits on this detail are for guidance purposes only. For more detailed information on the full range of available test results please contact a Hilti Firestop Specialist on 0800 886100.
2. The product and application has been fire tested as a minimum to BS 476. It may have additional 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.

# Hilti CP 611A High pressure intumescent sealant

| Test           | Up to    |
|----------------|----------|
| Fire Integrity | 1 hr     |
| Insulation     | 1 hr     |
| Acoustics      | 39dB     |
| Air Tightness  | ✓        |
| Age Testing    | 30 years |

| Approvals   |
|-------------|
| BS476 pt 20 |
| EN 1366-3   |
|             |
|             |
|             |

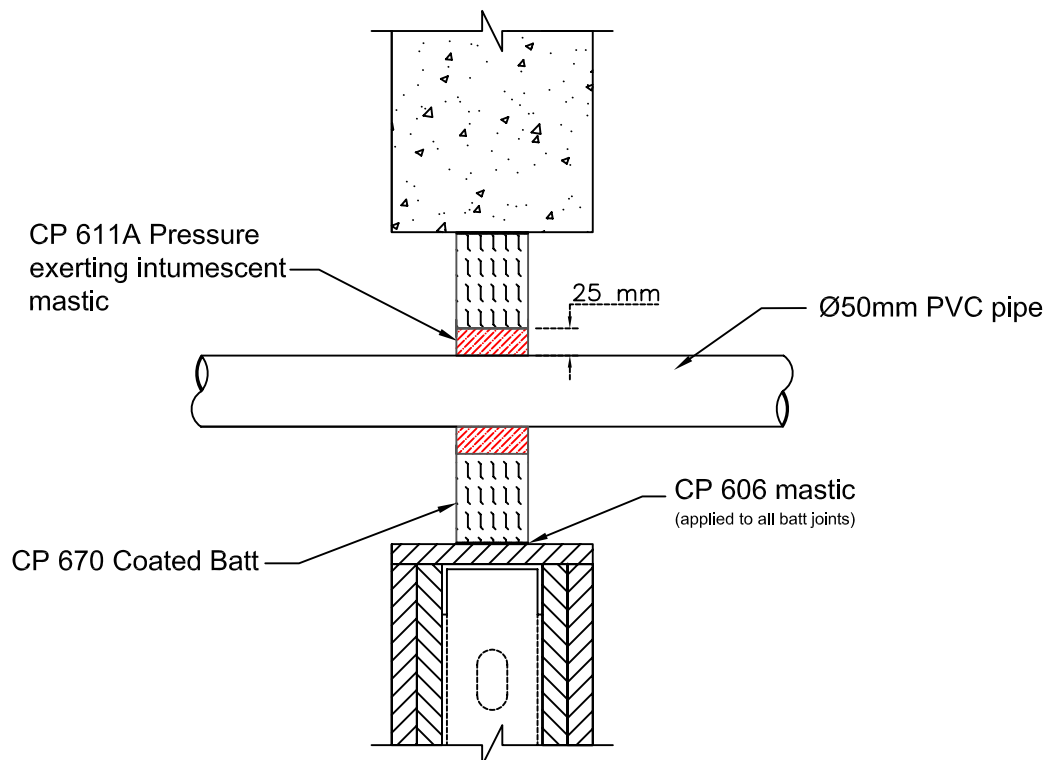
## APPLICATION



Plastic pipe

passing through

CP 670 coated batt



CP 611A high pressure intumescent mastic must be installed the full depth of the 50 mm CP 670 batt with an annular space around the pipe of 25 mm.

CP 606 Intumescent mastic must be used at all batt edges in accordance with the installation guidelines.

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.



18.03.09

Drawn by

R Wakefield

FS

080

Issue

01

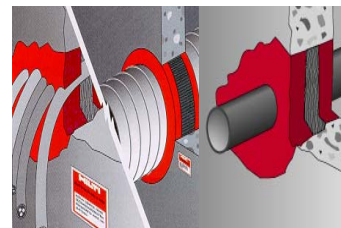


# Hilti CP 611A High pressure intumescent sealant

| Test           | Up to    |
|----------------|----------|
| Fire Integrity | 2 hr     |
| Insulation     | 1 hr     |
| Acoustics      | 39dB     |
| Air Tightness  | ✓        |
| Age Testing    | 30 years |

| Approvals   |
|-------------|
| BS476 pt 20 |
| EN 1366-3   |
|             |
|             |
|             |

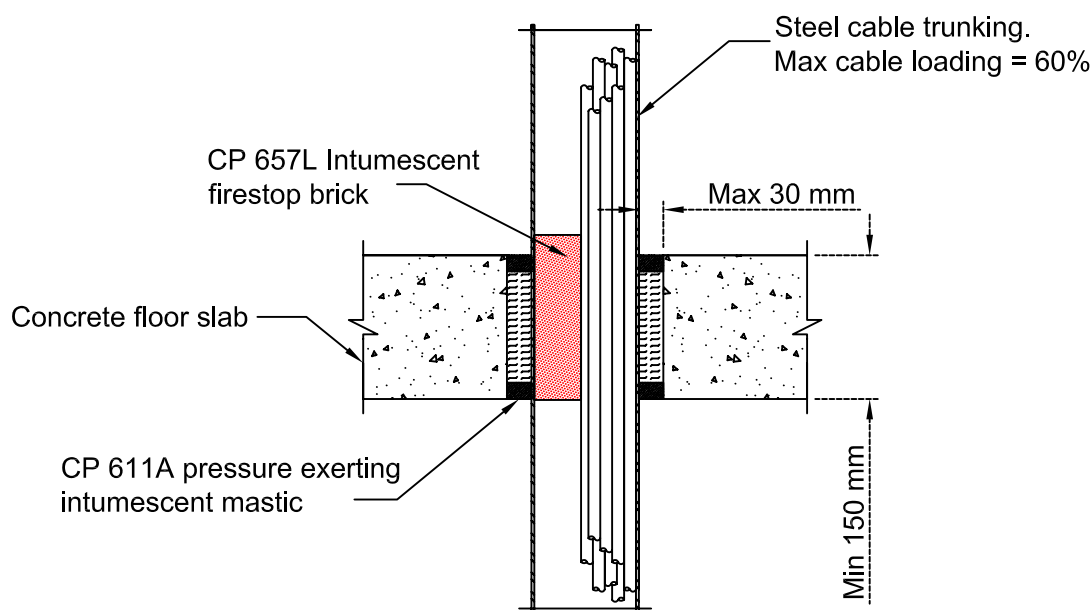
### APPLICATION



Steel cable trunking

passing through

Solid floor



CP 611A should be used to seal any spaces within the cable trunking between the cables and CP 657L Firestop brick

CP 657L should be installed longitudinally (200mm deep) through the cable trunking.

The steel trunking should be independently supported either side of the seal system.

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.

07.04.09

Drawn by

R Wakefield

FS

085

Issue

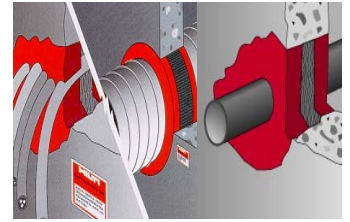
01

# Hilti CP 611A High pressure intumescent sealant

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

| Approvals |
|-----------|
| UL 1479   |
|           |
|           |

## APPLICATION

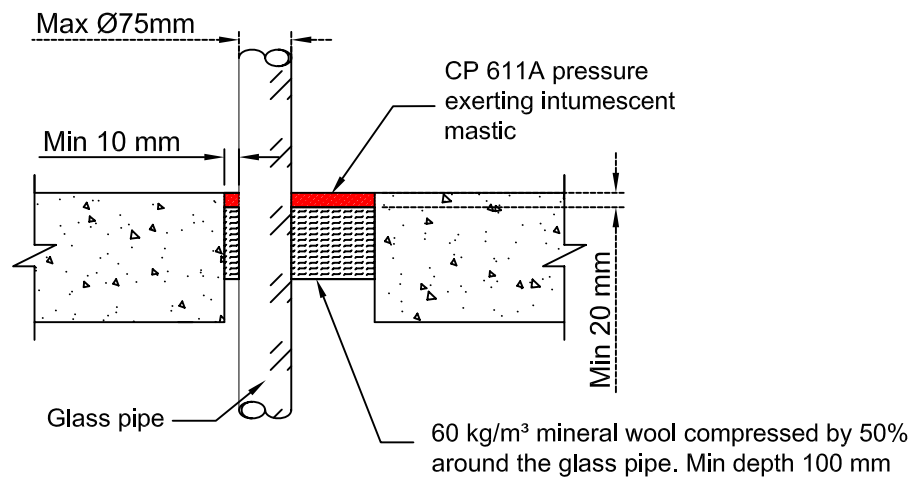


Glass pipe

passing through

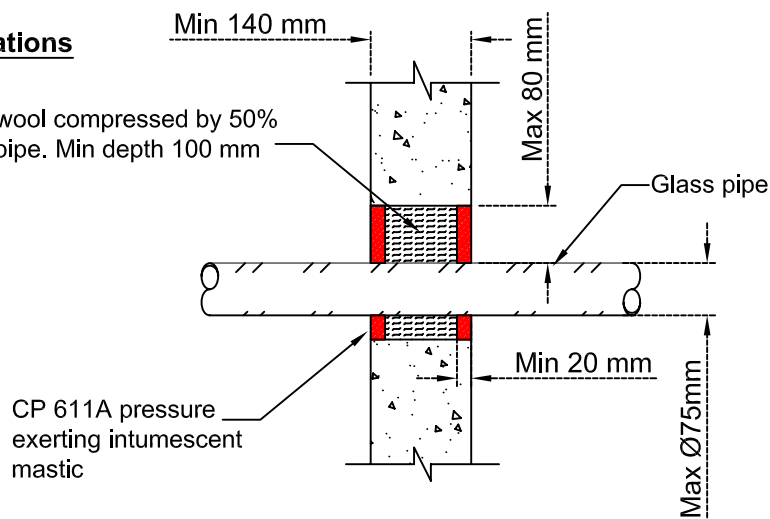
Solid wall / floor

### Floor applications



### Wall applications

60 kg/m³ mineral wool compressed by 50% around the glass pipe. Min depth 100 mm



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 UL 1479. It may have additional BS, 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.

07.04.09

Drawn by

R Wakefield

FS

086

Issue

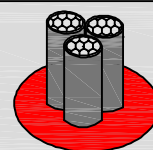
01

# Hilti CP 611A Intumescent Mastic

| Test           | Up to    |
|----------------|----------|
| Fire Integrity | 2 hr*    |
| Insulation     | 2 hr*    |
| Acoustics      |          |
| Air Tightness  | ✓        |
| Age Testing    | 30 years |

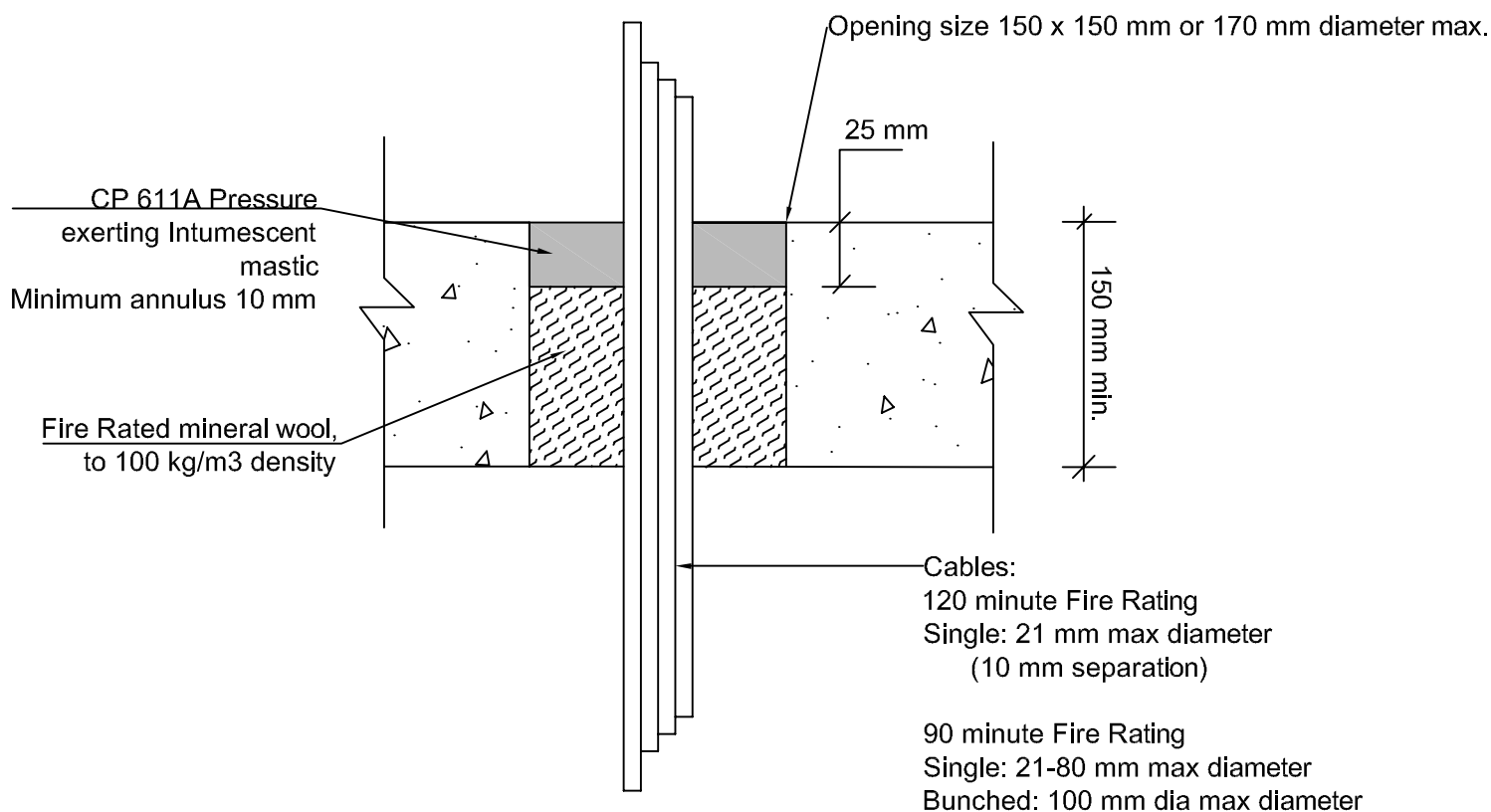
| Approvals |
|-----------|
|           |
| EN 1366-3 |
|           |
|           |
|           |

### APPLICATION



Cable penetration  
through  
solid floors

\* Cable size dependent. Confirm with Hilti



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.

12.09.11

Drawn by

A Brockett

FS

127

Issue

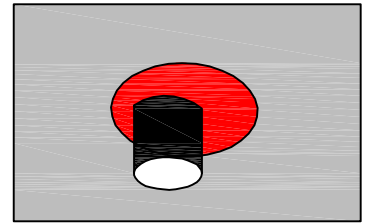
01

# Hilti CP 611A Intumescent Mastic

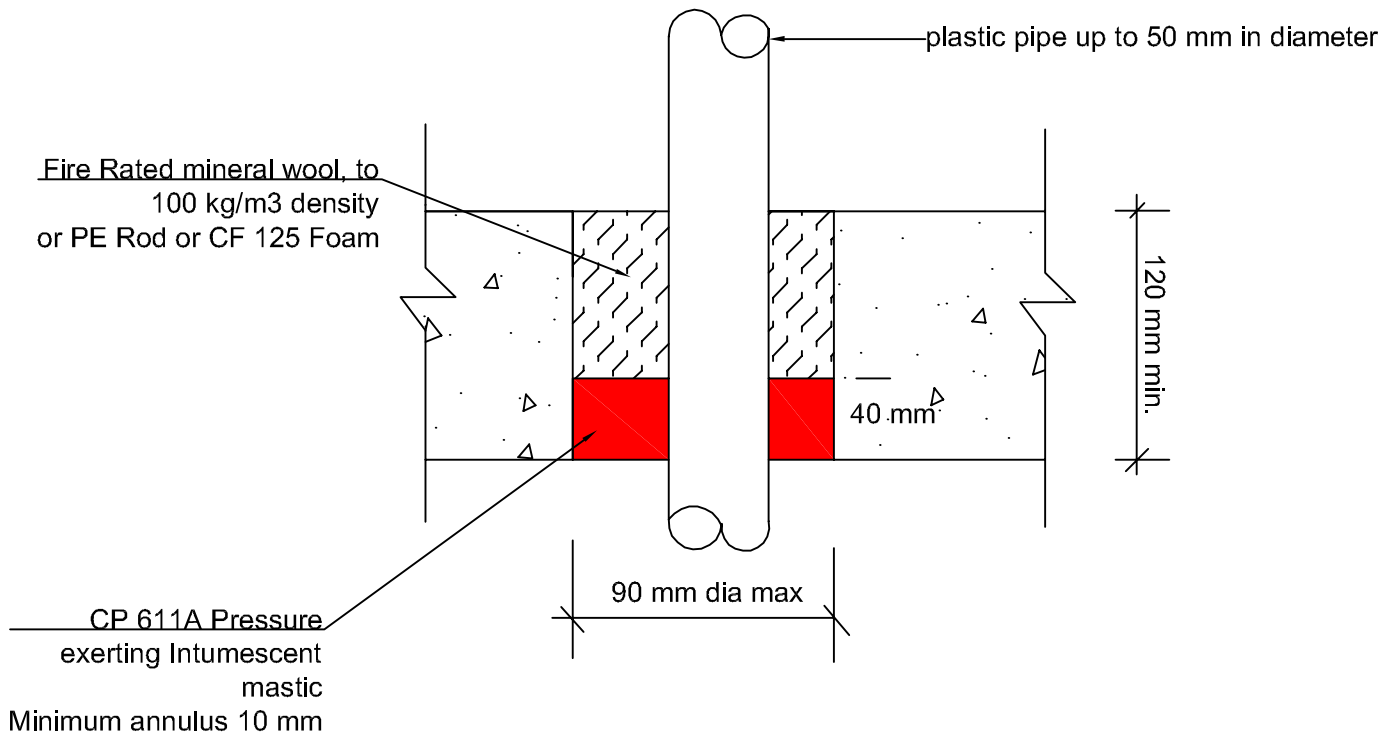
| Test           | Up to    |
|----------------|----------|
| Fire Integrity | 3 hr*    |
| Insulation     | 2 hr*    |
| Acoustics      |          |
| Air Tightness  | ✓        |
| Age Testing    | 30 years |

| Approvals |
|-----------|
| BS 476;20 |
|           |
|           |
|           |

### APPLICATION

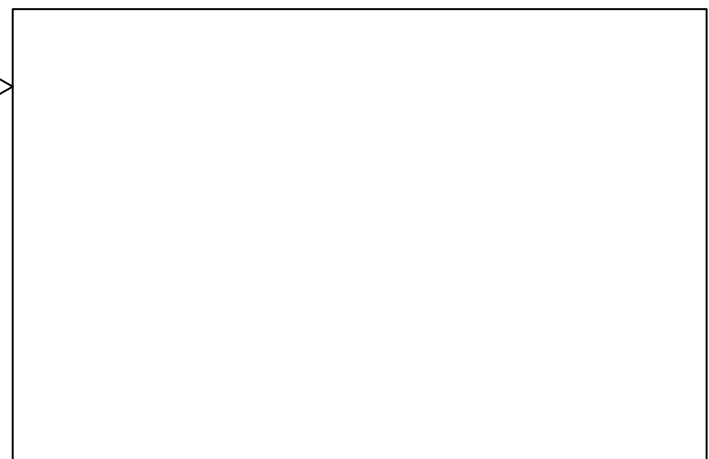


Plastic pipe  
through  
solid floors



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.



**Additional Properties of CP 611A Pressure exerting intumescent firestop mastic seals**

| Property              | Test regime   | Notes    |                                |
|-----------------------|---|----------|--------------------------------|
| Fire                  | BS 476 - 20   |          | ✓                              |
|                       | EN 1366-3   |          | ✓                              |
|                       | 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   |          | Yes                            |
| Water resistance      | Rain Resistance   |          | ✓                              |
|                       | Mold and Mildew resistance  | ISO 846  | Class 0-1                      |
|                       | Water tightness   | UL 1479  | ✓                              |
| VOC                   | LEED 2009   | LEED 3.0 | 56 g/l                         |
| Chemical Resistance   | Contact Hilti Technical Advisory Service with details of type, concentration, duration and ambient temperature of exposure conditions |          |                                |
|                       |   | N.R<br>✓ | Not relevant<br>Meets standard |

## CP 611A- Pressure exerting intumescent firestop mastic – 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)                        | N A |
|   |  |     |
| 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](http://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. |

### **Important note:**

**All sales are subject to Hilti (Gt Britain) Ltd. "Terms and Conditions of Sale".**

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

All descriptions and illustrations in this publication are intended for guidance only and shall not constitute a "sale by description / picture". All dimensions given are nominal and Hilti (Gt Britain) Limited may change the information, products and specifications from time to time for a variety of reasons, without prior notice. The information in this publication is provided "as is" at the date specified on the front cover. (Updates will not be issued automatically)

This information is not intended to have any legal effect, whether by way of advice, representation or warranty (express or implied). Hilti (Gt Britain) Ltd accepts no liability whatsoever (to the extent permitted by law) if you place any reliance on this publication and you must do so at your own risk.

### **RETURNS AND CANCELLATIONS**

Subject to condition 6.3 of the Company's Terms and Conditions, Goods supplied pursuant to the Contract cannot be returned without the Company's prior written authorisation. Duly authorised returns:

- 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.

Right of technical and programme changes reserved S.E&O;  
no liability accepted for printing errors or other deficiencies, earlier catalogues are thus rendered non valid.

**Hilti = registered trademark of Hilti Corp. Schaan**