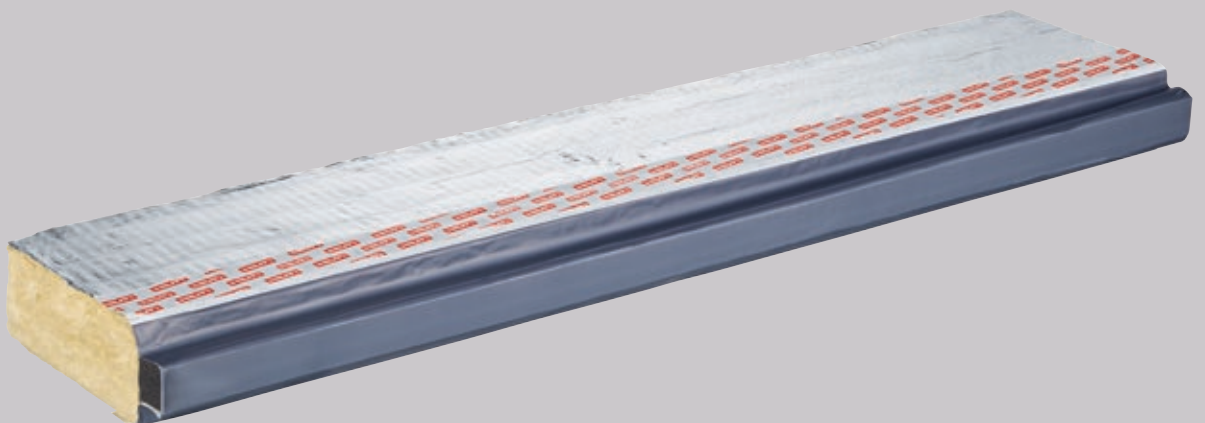
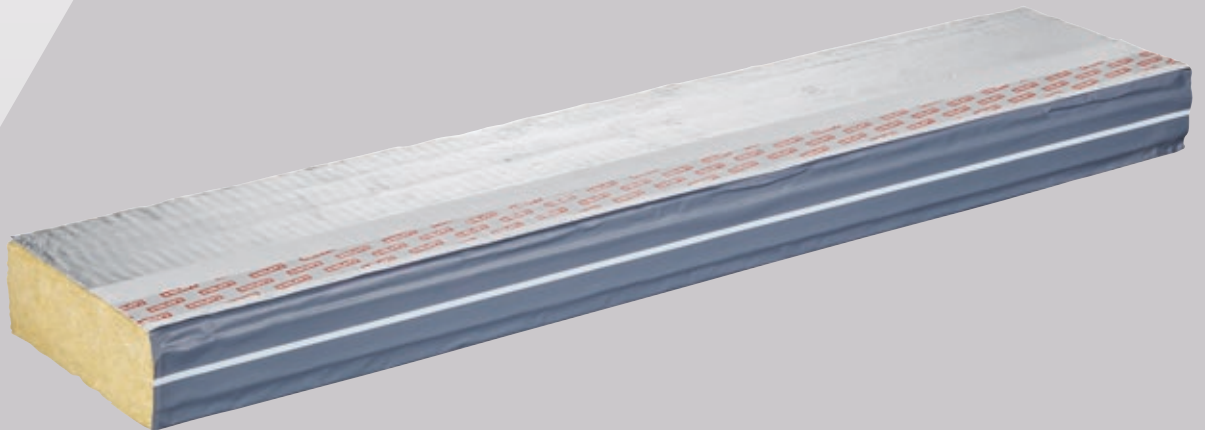




# FIRESTOP CAVITY BARRIER CP 674

Product Information



# VENTILATED FIRESTOP CAVITY BARRIER CP 674 V

## Areas of application

- Pre-formed intumescent fire cavity barrier for ventilated façades

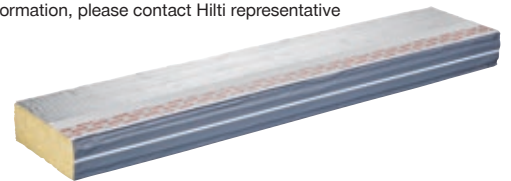
## Advantages

- Faster, easier installation – cavity barriers arrive on-site ready to fasten in place using the included stainless-steel brackets
- Verified fire resistance – tested according to Association for Specialist Fire Protection (ASFP) TGD 19 & BS 476-20
- Extensive range – barriers and brackets available for most common cavity widths
- Design support available – contact your local Hilti Building Envelope Specialists for advice on complex passive fire protection detailing

## Technical Data

|                                   |                                     |
|-----------------------------------|-------------------------------------|
| <b>Approvals</b>                  | BS 476-20, TGD-19                   |
| <b>Base Materials</b>             | Concrete, Masonry, Brick, SFS frame |
| <b>Intumescent</b>                | Yes                                 |
| <b>Length</b>                     | 1 meter                             |
| <b>Storage and Transport Temp</b> | -10 °C to 40 °C                     |
| <b>Shelf life</b>                 | no restriction                      |
| <b>Max Width available</b>        | 400 mm                              |
| <b>(E/I) TGD19 (Pr EN 1364-6)</b> | 60/30                               |
| <b>(E/I) BS476- 20</b>            | 90/60                               |

\* For detailed approval information, please contact Hilti representative



## Product Options

| Product Name    | Panel Gap Size | Item Number |
|-----------------|----------------|-------------|
| CP 674 V 100-25 | 100            | 2312926     |
| CP 674 V 150-25 | 150            | 2312927     |
| CP 674 V 200-25 | 200            | 2312928     |
| CP 674 V 250-25 | 250            | 2312929     |
| CP 674 V 300-25 | 300            | 2313190     |
| CP 674 V 400-25 | 400            | 2313191     |

# NON-VENTILATED FIRESTOP CAVITY BARRIER CP 674 NV

## Areas of application

- Pre-formed intumescent fire cavity barrier for ventilated and non-ventilated façades

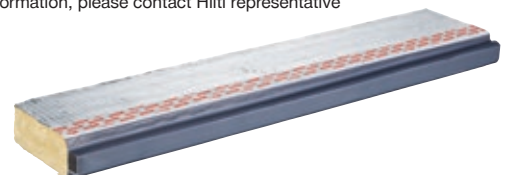
## Advantages

- Faster, easier installation – cavity barriers arrive on-site ready to fasten in place using the included stainless-steel brackets
- Verified fire resistance – tested according to Association for Specialist Fire Protection (ASFP) TGD 19 & BS 476-20
- High tolerance – compressible foam strip simplifies correct installation despite building tolerances
- Extensive range – barriers and brackets available for most common cavity widths
- Design support available – contact your local Hilti Building Envelope Specialists for advice on complex passive fire protection detailing

## Technical Data

|                                   |                                     |
|-----------------------------------|-------------------------------------|
| <b>Approvals</b>                  | BS 476-20, TGD-19                   |
| <b>Base Materials</b>             | Concrete, Masonry, Brick, SFS frame |
| <b>Intumescent</b>                | Yes                                 |
| <b>Length</b>                     | 1 meter                             |
| <b>Storage and Transport Temp</b> | -10 °C to 40 °C                     |
| <b>Shelf life</b>                 | no restriction                      |
| <b>Max Width available</b>        | 400 mm                              |
| <b>(E/I) TGD19 (Pr EN 1364-6)</b> | 60/30                               |
| <b>(E/I) BS476-20</b>             | 120/120                             |

\* For detailed approval information, please contact Hilti representative



## Product Options

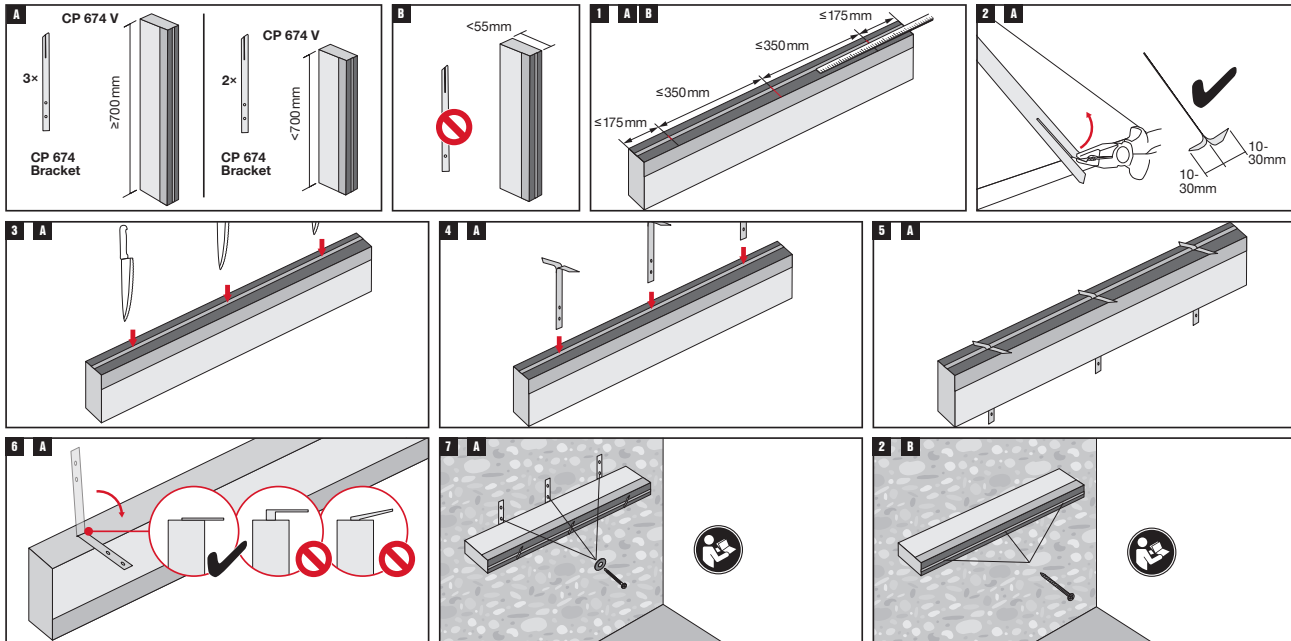
| Product Name  | Panel Gap Size | Item Number |
|---------------|----------------|-------------|
| CP 674 NV 100 | 100            | 2313192     |
| CP 674 NV 150 | 150            | 2313193     |
| CP 674 NV 200 | 200            | 2313194     |
| CP 674 NV 250 | 250            | 2313195     |
| CP 674 NV 300 | 300            | 2313196     |
| CP 674 NV 400 | 400            | 2313197     |

Cavity barriers pre-cut to your project requirements are available – please contact your Hilti representative for more information

## INSTRUCTIONS FOR USE: VENTILATED CAVITY BARRIER



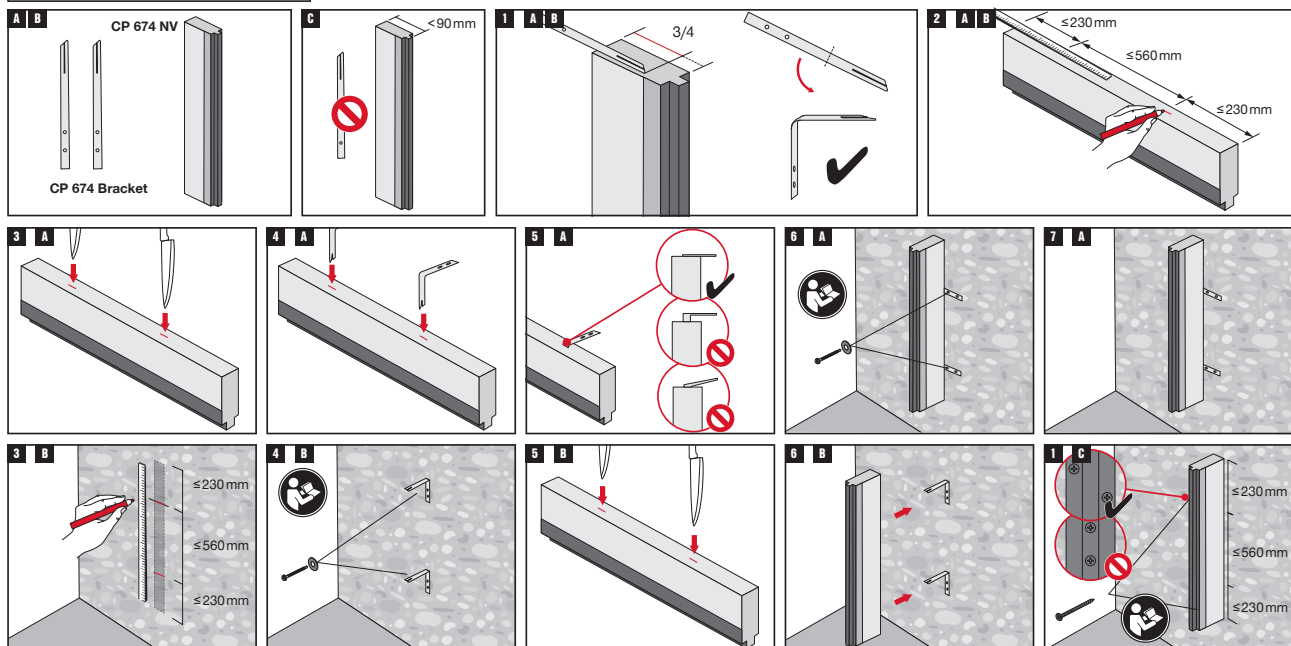
**Cn** Before handling and for specific application details, refer to Hilti product literature, 3rd party published listings and national approvals. For industrial use only  
**Fr** Avant toute utilisation et pour tout détail concernant une application, référer à la documentation Hilti, à la liste de publications des tierces parties et aux approbations nationales. Seulement pour utilisateurs professionnels.  
**Es** Antes de usar y para detalles específicos de aplicación, véase la información que acompaña al producto Hilti, el listado publicado por terceros y las aprobaciones nacionales. Solamente para los usuarios profesionales.



## INSTRUCTIONS FOR USE: NON-VENTILATED CAVITY BARRIER



**Cn** Before handling and for specific application details, refer to Hilti product literature, 3rd party published listings and national approvals. For industrial use only  
**Fr** Avant toute utilisation et pour tout détail concernant une application, référer à la documentation Hilti, à la liste de publications des tierces parties et aux approbations nationales. Seulement pour utilisateurs professionnels.  
**Es** Antes de usar y para detalles específicos de aplicación, véase la información que acompaña al producto Hilti, el listado publicado por terceros y las aprobaciones nacionales. Solamente para los usuarios profesionales.

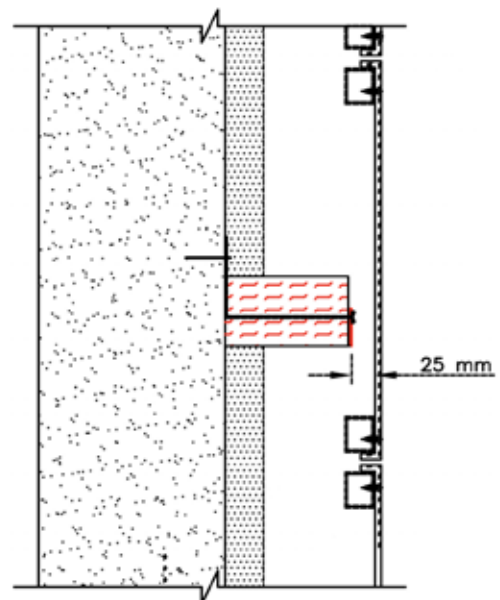
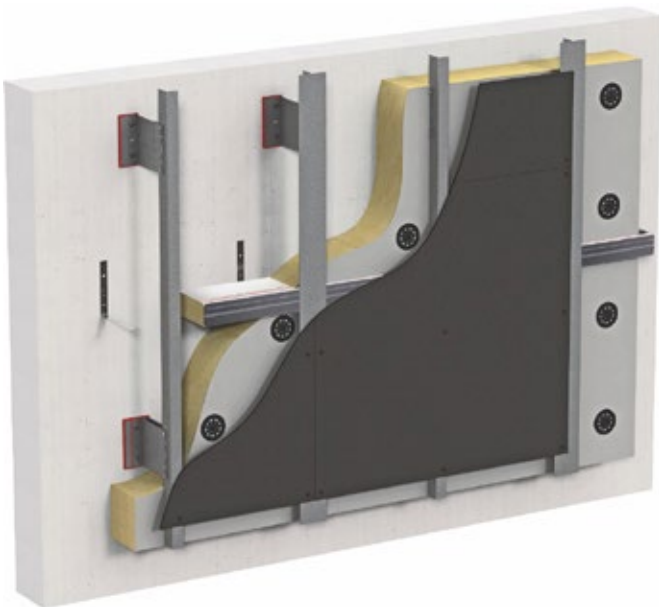


## FIXING COMPONENTS FOR BASE MATERIAL

| Substrate    | Hilti Screw anchor:<br>HUS HR6 | Hilti Nail Anchor:<br>HFB-R-6 | Hilti Expansion<br>anchor:<br>HST3 R M6 |
|--------------|--------------------------------|-------------------------------|---|
| Masonry Wall | X                              |                               |   |
| Concrete     | X                              | X                             | X                                       |

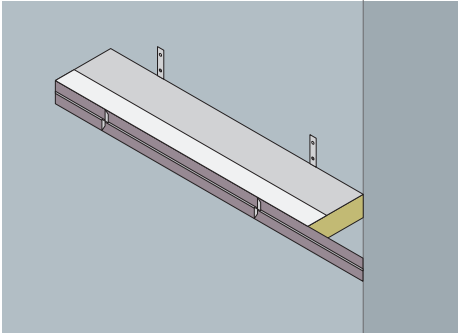
For Panel gap size < 80mm, use Hilti Frame anchor HRD-HR 10x140 as shown in the instruction of use

## APPLICATIONS

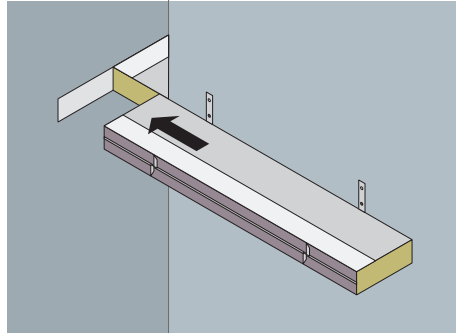


| Joint Type                     | Joint between wall/floor and Rainscreen            |
|--------------------------------|--|
| Base Material                  | Concrete, Masonry, Brick, SFS Frame                |
| Joint / cavity width (min-max) | 40–400 mm  |
| Approvals                      | TGD19 (Pr EN 1364-6) & BS 476-20                   |
| E/I Rating – CP 674 V          | 60/30 - TGD19 (Pr EN 1364-6) & 90/60 (BS476- 20)   |
| E/I Rating – CP 674 NV         | 60/30 - TGD19 (Pr EN 1364-6) & 120/120 (BS476- 20) |

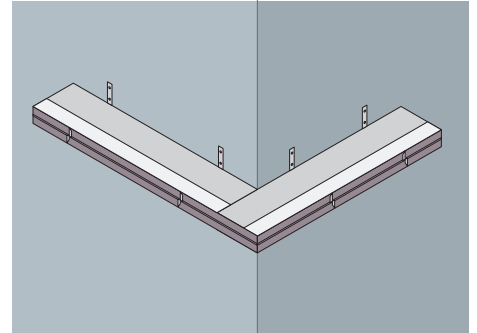
**Exterior Corners: Should have a continuous strip of intumescent barrier on leading edge**



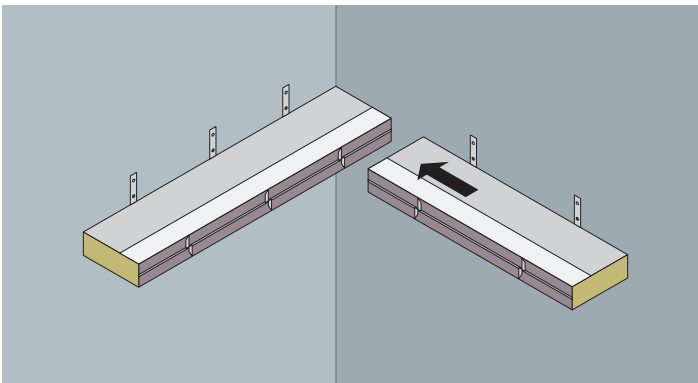
Fit CP 674 to extend past the corner by the width of the CP 674 barrier. Remove section of mineral wool from CP 674 back to corner leaving intumescent strip.



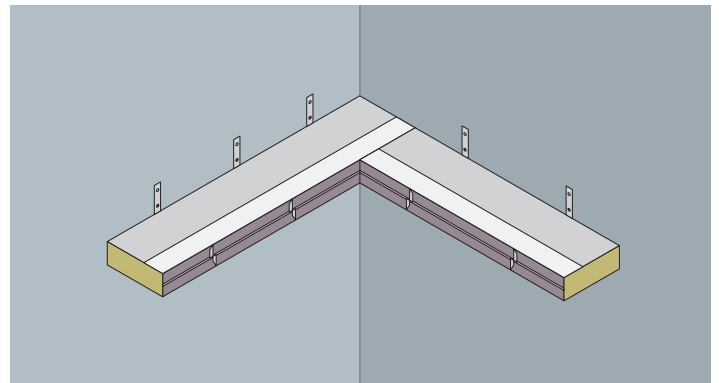
Coat back of intumescent facing strip with CP 606/CFS-S ACR. Take section of CP 674 barrier for other wall face and position end to the intumescent strip from previous step.



Fix barrier to substrate

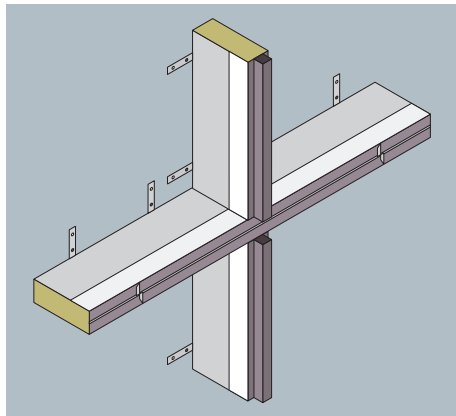
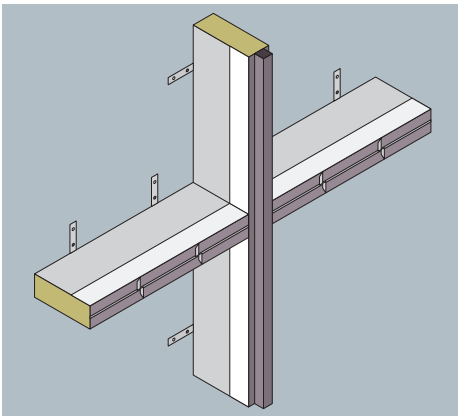


Butt barriers together



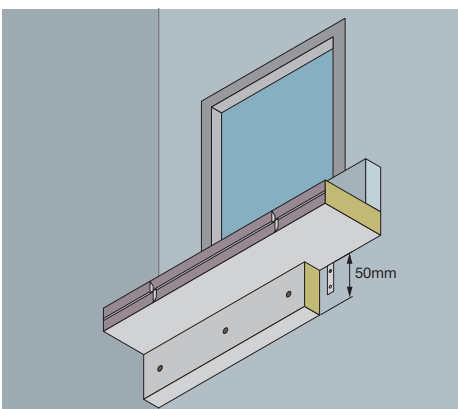
Ensure barrier alignment/flush surfaces

**Butt Joints: Cavity Barriers must tightly abut one another**



Can be installed Non-Ventilated first and then Ventilated, or vice-versa

**Space Constraints: Brackets installed below the barrier need to be protected**



Where access constraints mean brackets cannot be fixed above the cavity barrier, the brackets may be fixed beneath the barrier, with 50 mm CP 670 (coated board) used to protect brackets.

Notice: The product's foil cover is used for branding purposes only. Therefore, wrinkles or local detachments do not influence the product's functionality.

## Scope of Report

This summary sheet covers 4 specimens; of which: 2 specimens are non-ventilated vertically installed (wall mounted) and 2 specimens are ventilated 'open-state' horizontally installed (floor mounted) barriers, tested utilising the general principles of **BS476: Part 20 (1987)**.

**Table 1 – Tested Cavity Barriers**

| Specimen | Orientation       | Substrates | Cavity Width | Seal details  |
|----------|-------------------|------------|--------------|---|
| A        | Vertical, Wall    | AAC to AAC | 400 mm       | Hilti CP 674NV 400, installed by compression and 2 Nr stainless-steel brackets.<br>5 layers of 50 mm thick mineral fibre insulation (50 kg/m <sup>3</sup> ) fixed back to inner wall with steel screws (abutting cavity barrier).   |
| B        | Vertical, Wall    | AAC to AAC | 200 mm       | Hilti CP 674NV 200, installed by compression and 2 Nr stainless-steel brackets.<br>3 layers of 50 mm thick mineral fibre insulation (50 kg/m <sup>3</sup> ) fixed back to inner wall with steel screws (abutting cavity barrier).   |
| C        | Horizontal, Floor | AAC to AAC | 225 mm       | Hilti CP 674V 225-25, installed by 3 Nr stainless-steel brackets with 25 mm air gap between leading edge and external wall.<br>3 layers of 50 mm thick mineral fibre insulation (50 kg/m <sup>3</sup> ) fixed back to inner wall with steel screws (abutting cavity barrier). |
| D        | Horizontal, Floor | AAC to AAC | 400 mm       | Hilti CP 674V 400-25, installed by 3 Nr stainless-steel brackets with 25 mm air gap between leading edge and external wall.<br>5 layers of 50 mm thick mineral fibre insulation (50 kg/m <sup>3</sup> ) fixed back to inner wall with steel screws (abutting cavity barrier). |

**Table 2 – Fire Resistance Performance Utilising the General Principles of BS476: Part 20 (1987).**

| Specimen | Integrity    | Insulation   | Closure time | Comments   |
|----------|--------------|--------------|--------------|--|
| A        | 132 minutes* | 75 minutes   | N/A          |  |
| B        | 132 minutes* | 132 minutes* | N/A          |  |
| C        | 0 minutes    | 0 minutes    | 4:00**       | Due to the intended end use of Specimen C & D, the specimens were tested incorporating a 25 mm through gap along one edge, at the start of the test. As a result, the specimens automatically failed the integrity and insulation criteria of the test via penetration of a 25 mm gap gauge upon commencement of the test. |
| D        | 0 minutes    | 0 minutes    | 2:21**       |  |

\* Test was discontinued after a period of 132 minutes.

\*\* After 4:00 mins (specimen C) and 2:21 mins (specimen D), the specimens had sealed the gaps to the point that no gaps in excess of those permitted by the standard were present. Therefore if assessed against the integrity and insulation (max temperature rise only) performance criteria of BS 476: Part 20: 1987, from this point, then: **111 mins integrity and 88 mins insulation (specimen C)**; and **105 mins integrity and 83 mins insulation (specimen D)** were recorded.

## Test Report Summary for Hilti (Gt Britain) Ltd

### Scope of Report

This Test Report Summary has been prepared by **Warringtonfire** and is a summary of the test report referenced below. Full details of the constructions, the test procedure, and the test results are given in that report. This summary sheet covers two specimens of floor mounted 'open-state' cavity barriers as previously fire tested by **Warringtonfire** utilising the general principles of **ASFP Technical Guidance Document - TGD 19: Nov 2017** 'Fire resistance tests for 'Open-State' Cavity Barriers used in the external envelope or fabric of buildings in the configuration described below.

### Test Report Reference

WF No. 417308

### Test Date

21<sup>st</sup> August 2019

**Table 1 – Tested 'Open-State' Cavity Barriers**

| Specimen | Orientation       | Substrates | Cavity Width | Seal details  |
|----------|-------------------|------------|--------------|---|
| B        | Horizontal, floor | AAC to AAC | 313 mm       | Hilti CP 674V 288, installed with a 25 mm air gap. A vertical section of Hilti CP 674NV 307-313 above and below the barrier.  |
| C        | Horizontal, floor | AAC to AAC | 318 mm       | Hilti CP 674V 241-288, installed with a 25 mm air gap. A Hilti Eurofox MFT-S2S TT rail & U bracket penetrated the barrier with Hilti CFS F FX expanding firestop within the cavity of the rail. |

**Table 2 – Fire Resistance Performance Utilising the General Principles of ASFP Technical Guidance Document - TGD 19: Nov 2017**

| Specimen | Integrity (cotton pad) | Integrity (sustained flaming) | Insulation | Insulation (Suspended T/C's) | Closure time |
|----------|------------------------|-------------------------------|------------|------------------------------|--------------|
| B        | 64 minutes             | 66 minutes                    | 46 minutes | 46 minutes                   | 3 minutes    |
| C        | 71 minutes             | 71 minutes*                   | 36 minutes | 38 minutes                   | 3 minutes    |

\* Test was discontinued after a period of 71 minutes.

Table 3 – Brief Details of Specimens Construction

| Specimen | Description  |
|----------|--|
| B        | <p>Specimen B comprised of a foil faced stone wool fibre cavity barrier referenced 'Hilti CP 674V 288' which had a stated density of 120 kg/m<sup>3</sup>. The barrier had overall dimensions of 1300 mm long, 288 mm wide and 75 mm thick. The barrier was installed with a butt joint which was taped with aluminium foil tape at 300 mm from one end of the barrier. The barrier incorporated a 25 mm wide by 1.5 mm thick graphite based intumescent strip which was bonded to the leading edge. The barrier was fixed to the supporting construction using four steel hangers. Above and below the joint was two vertical section of 'Hilti CP 674NV 307-313' cavity barrier which incorporated a 30 mm x 30 mm section of intumescent foam strip down the length of the sections. The specimen also included a layer of 150 mm thick 'RW3' stone wool insulation above and below the barrier with a stated density of 60kg/m<sup>3</sup>. The insulation was fixed to one face of the supporting construction using metal insulation fixings. The barrier was installed to provide a 25 mm air gap.</p>  |
| C        | <p>Specimen C comprised of a foil faced stone wool fibre cavity barrier referenced 'Hilti CP 674V 241-288' which had a stated density of 120 kg/m<sup>3</sup>. The barrier had overall dimensions of 1300 mm long, 288 mm wide and 75 mm thick. The barrier was installed in two sections. The barrier incorporated a 25 mm wide by 1.5 mm thick graphite based intumescent strip which was bonded to the leading edge. The barrier was fixed to the supporting construction using four steel hangers. Between the two sections of barrier was a penetrating 'Hilti Eurofox MFT-S2S TT rail &amp; U bracket'. The bracket was fixed to the supporting construction using 4 No. Hilti HRD-H anchors. The rail was fixed to the bracket using 8 No. S-AD 01SS screws. The barrier was installed around the rail and bracket and sealed with Hilti Mastic CP606. The intumescent strip of the barrier was cut and overlapped around the front of the rail to provide a continuous length of intumescent across the full length of the barrier. 60kg/m<sup>3</sup> mineral wool was installed in the cavity between the bracket and rail. The cavity within the rail was sealed with Hilti CFS F FX expanding firestop at the exposed face of the barrier. The specimen also included a layer of 150 mm thick 'RW3' stone wool insulation above and below the barrier with a stated density of 60kg/m<sup>3</sup>. The insulation was fixed to one face of the supporting construction using metal insulation fixings. The barrier was installed to provide a 25 mm air gap.</p> |



Warringtonfire  
Holmesfield Road  
Warrington  
Cheshire  
WA1 2DS  
United Kingdom  
T: +44 (0)1925 655116  
W: [www.warringtonfire.com](http://www.warringtonfire.com)



*This Report Summary is based upon a test report, as referenced above, prepared by **Warringtonfire**. Full details of the constructions the test procedure, and the test results are given in that report. The test report does not provide an endorsement by **Warringtonfire**, of the performance of the actual products supplied.*

*This report summary has been compiled between **Warringtonfire** and **Hilti (Gt Britain) Ltd**. It is intended to provide a brief outline of the above referenced test report and not to replace it.*

**Full copies of the test report may be obtained from: Hilti (Gt Britain) Ltd only**

|  |
|--|
|                 |
| Responsible Officer<br><b>D. Whittle*</b><br>Technical Officer<br>11 <sup>th</sup> December 2019 |

This copy has been produced from a .pdf format electronic file that has been provided by **Warringtonfire** to the sponsor of the report and must only be reproduced in full. Extracts or abridgements of reports must not be published without permission of **Warringtonfire**. The pdf copy supplied is the sole authentic version of this document. All pdf versions of this report bear authentic signatures of the responsible **Warringtonfire** staff.



Hilti Corporation  
9494 Schaan, Liechtenstein  
P +423-234 2965

[www.facebook.com/hiltigroup](https://www.facebook.com/hiltigroup)  
[www.hilti.group](http://www.hilti.group)