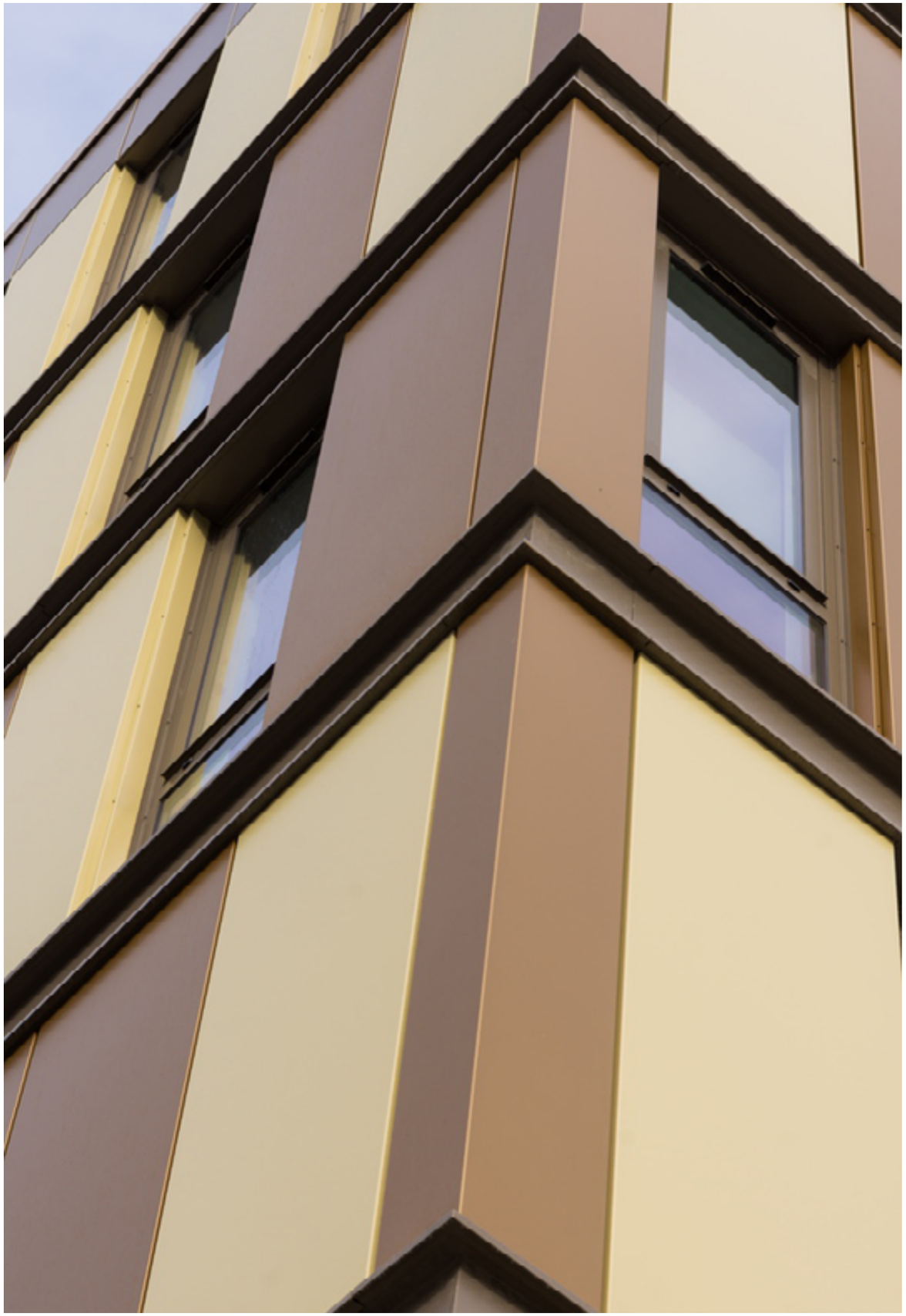
NVELOPE®

Cavity Fire Barrier

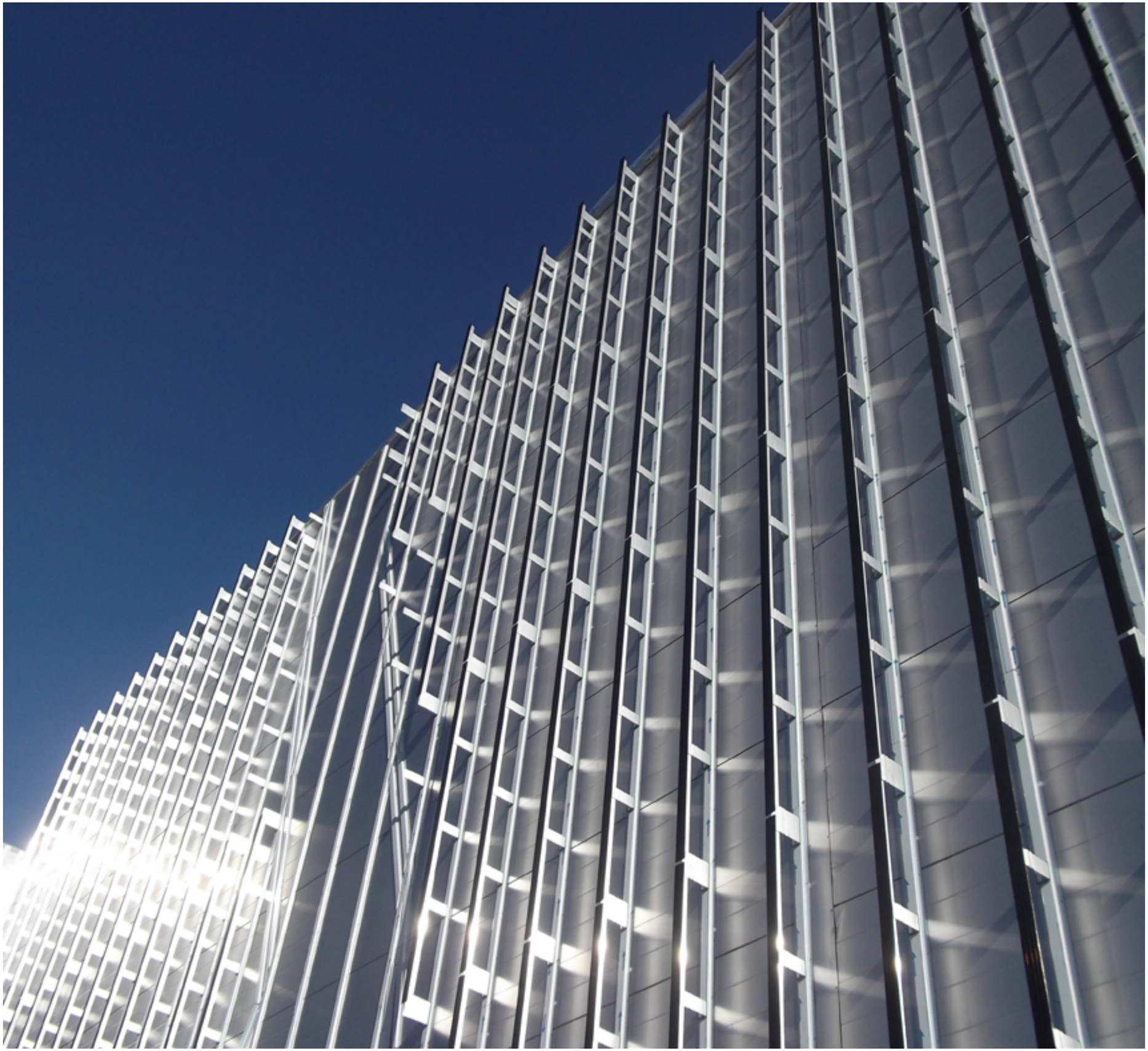
Quick, Simple, Secure.



The building envelope specialist

We strive for continuous improvement and innovation – always in close collaboration with our customers, colleagues and suppliers. We want to be successful together, improve all the time, see where the technological limits are and drive them forward. SFS creates value with advanced fixing and rainscreen subframe systems for the building envelope. As the leading specialist in this application we offer the highest possible expertise.

Together with our partners we invent new products and services for our shared success.



Contents

Cavity Fire Barriers

The SFS NVELOPE® NV CFB system has been created for Designers and Specialist Cladding Contractors who demand a clear and straightforward approach to aid the selection and supply of subframe cavity fire barriers.

Developed by the UK's leading rainscreen subframe provider, the SFS NVELOPE® NV CFB fire safety solution offers an appropriate barrier to meet most subframe project specific fire safety requirements.

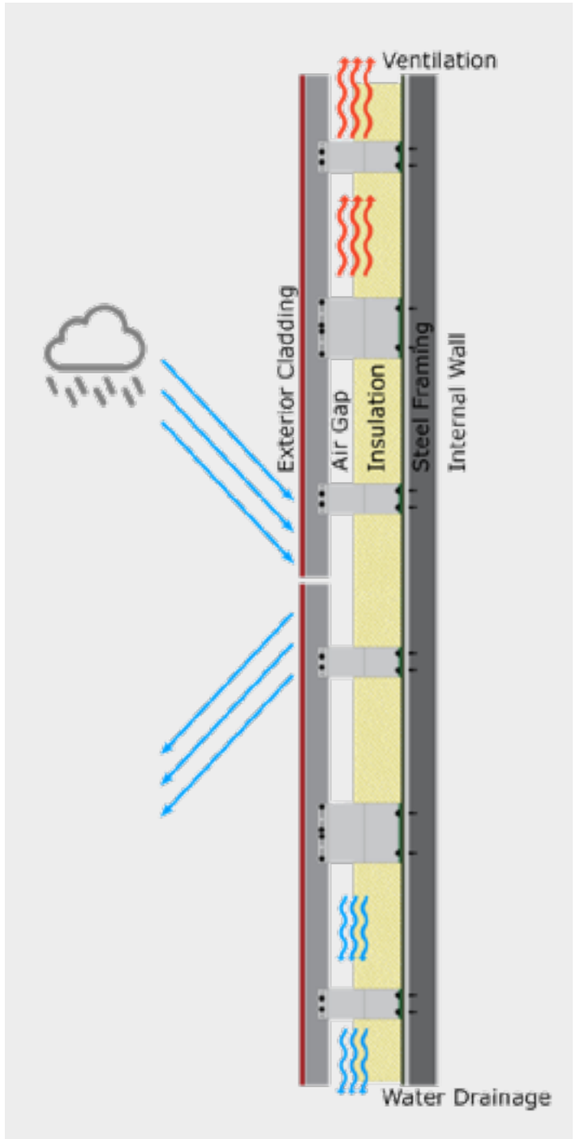
The requirement to prevent fire breaking into and spreading within the cavity of a rain screen build-up has gained a high degree of traction in the UK and further a field in certain international regions.

The Centre for Window and Cladding Technology (CWCT) describes a rainscreen cladding system as 'a wall comprising of an outer skin of panels and an airtight insulated backing wall separated by a ventilated cavity or airgap'

The basic principle of a ventilated rainscreen system allows any penetrating rain or moisture to 'drain' or evaporate and vent back to the outside. Further the effects of pressure equalisation allow the movement of air between the inside and outside so that rain is not driven through into the buidlding structure

These principles rely on a free movement of air throughout the cavity or air gap.

During a fire event however this freedom of movement could act as a chimney and draw smoke and fire along the cavity. That's where Cavity Fire Barriers come into effect.



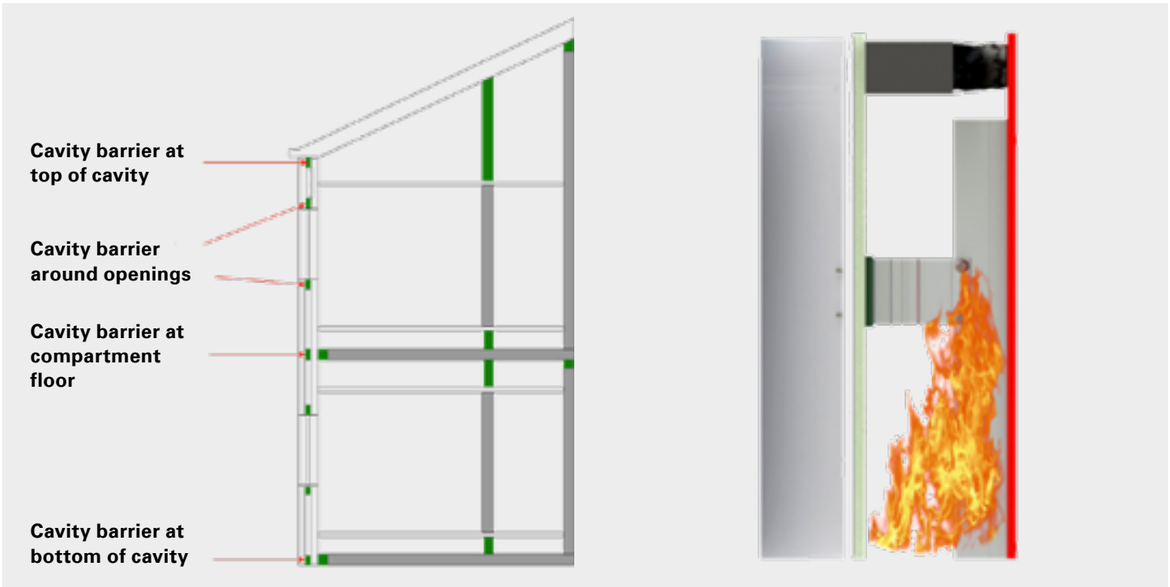
Safety at the forefront

Passive cavity fire barriers are an accepted method to support the achievement of fire safety requirements. These functional requirements are defined within UK Building Regulations and further practical guidance is described within ADB.

Strategies to remediate at risk buildings are latterly considering passive fire control, including cavity fire breaks, in addition to the façade panel and insulation. Cavities in the construction of a building provide a ready route for the spread of smoke and flame, which can present a greater danger as any spread is concealed.

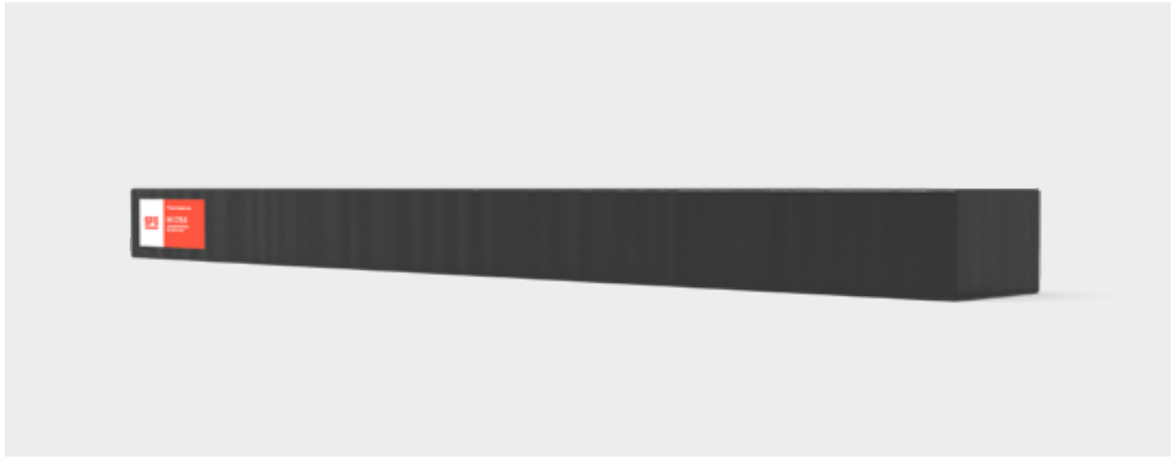
To reduce the potential for fire spread, cavity barriers should be provided for both of the following;
- To divide cavities
- To close the edges of cavities

Cavity barriers should be provided at all of the following location;
- At the edges of cavities, including around openings (such as windows, doors and exit/entry points for services
- At the junction between an external cavity wall and every compartment floor and compartment wall



NV CFB 6

An open state cavity fire barrier for ventilated cavities up to 450mm. Utilises a high performance intumescent seal fixed to a high density mineral wool backer. It is mechanically fixed and usually orientated horizontally.



Approvals
Extensively tested in accordance with the principles of:
- **BS EN 1363-1 :2020** - Fire Resistance Tests - General Requirements
- **EOTA TR31** - Fire Resistance Tests for Cavity Barriers - Edition 2008
- **ASFP TGD 019** - Fire resistance test for 'open-state' cavity barriers used in the external envelope or fabric of buildings

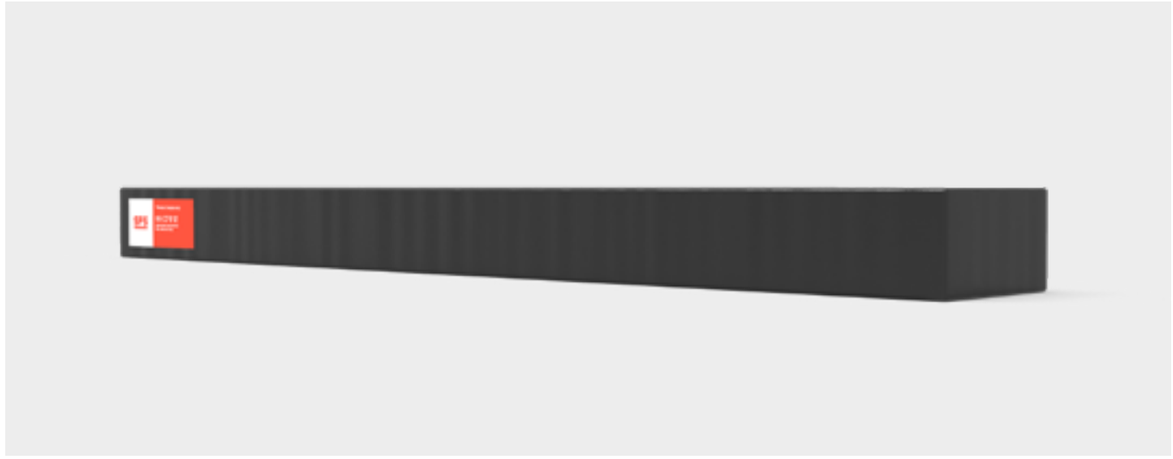
Product Information
- Up to 60 Minutes Integrity and Insulation Fire Rating
- Maintains a 25 mm air gap
- Minimum In Service Life: 60 Years based on typical UK conditions
- Weather-proof/Age Tested intumescent

NV CFB 6 Cavity Size and Thickness

Cavity Size	Product Thickness
60 mm	35 mm
+10 mm increments up to;	+10 mm increments up to;
440 mm	415 mm

NV CFB 12

An advanced open state cavity fire barrier for ventilated cavities up to 450mm. Utilises a high performance intumescent seal fixed to a high density mineral wool backer which offer extended performance over and above CFB 6. It is mechanically fixed and usually orientated horizontally.



Approvals
Extensively tested in accordance with the principles of:
- **BS EN 1363-1 :2020** - Fire Resistance Tests - General Requirements
- **EOTA TR31** - Fire Resistance Tests for Cavity Barriers - Edition 2008
- **ASFP TGD 019** - Fire resistance test for 'open-state' cavity barriers used in the external envelope or fabric of buildings

Product Information
- Fire Ratings of 120 Minutes Integrity and Insulation for up to 300 mm cavities
- Fire Ratings of 90 Minutes Integrity and Insulation for 300–450 mm cavitites
- Maintains a 25mm air gap
- Up to 450 mm cavities
- Minimum In Service Life: 60 Years based on typical UK conditions
- Weather-proof/Age Tested intumescent

NV CFB 12 Cavity Size and Thickness

Cavity Size	Product Thickness
60 mm	35 mm
+10 mm increments up to;	+10 mm increments up to;
440 mm	415 mm

NV CFB EXTRA

The superior open state cavity fire barrier for ventilated cavities up to 450mm which provides additional protection for larger air gaps up to 44mm. Utilises an high performance intumescent seal fixed to a high density mineral wool backer which offers extended performance over and above CFB 6. It is mechanically fixed and usually orientated horizontally.

Approvals
Extensively tested in accordance with the principles of:
- **BS EN 1363-1 :2020** - Fire Resistance Tests - General Requirements
- **EOTA TR31** - Fire Resistance Tests for Cavity Barriers - Edition 2008
- **ASFP TGD 019** - Fire resistance test for 'open-state' cavity barriers used in the external envelope or fabric of buildings

Product Information
- 30 to 60 Minutes Integrity and Insulation Fire Rating
- Maintains a 44mm air gap
- Minimum In Service Life: 60 Years based on typical UK conditions
- Weather-proof/Age Tested intumescent
- Simple to install

NV CFB EXTRA Cavity Size and Thickness

Cavity Size	Product Thickness
60 mm	16 mm
+10 mm increments up to;	+10 mm increments up to;
440 mm	396 mm

NV CFB 12/50

An open state cavity fire barrier for use horizontally within ventilated cavities up to 50mm. Developed to allow maximum ventilation and drainage of cavitites. Manufactured from a rigid intumescent material allowing it to be provided in strip format, it is also covered with a protective layer of aluminium foil for ease of handling.

Approvals
Extensively tested in accordance with the principles of:
- **BS EN 1363-1 :2020** - Fire Resistance Tests - General Requirements
- **EOTA TR31** - Fire Resistance Tests for Cavity Barriers - Edition 2008
- **ASFP TGD 019** - Fire resistance test for 'open-state' cavity barriers used in the external envelope or fabric of buildings

Product Information
- Up to 120 Minutes Integrity and Insulation Fire Rating
- Maintains a 44 mm air gap
- Minimum In Service Life: 60 Years based on typical UK conditions
- Developed to allow maximum ventilation and drainage of cavitites reducing the need for cavity trays or weepholes
- Weather-proof/Age Tested intumescent
- Simple to install

NV CFB 12/50 Cavity Size and Thickness

Cavity Size	Product Thickness
50 mm	6 mm

NV CFB UV

This is a barrier for non ventilated applications, for cavities up to 600mm wide and is ideally suited to prevent fire penetration between adjacent vertical compartments within a rainscreen. Manufactured from high density mineral wool to suit a wide range of cavity depths. They are held in place by a combination of compression and multi purpose brackets.

Approvals
Extensively tested in accordance with the principles of:
- **BS476:Part 20**
- **BS EN 1363-1 :2020** Fire Resistance Tests - General Requirements

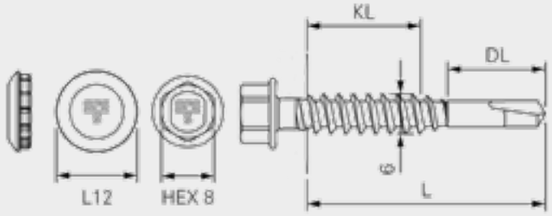
Product Information
- Simple installation
- Up to 120 Minutes Integrity and Insulation Fire Rating
- Minimum In Service Life: 60 Years based on typical UK conditions
- Only requires 5 mm compression when fitting
- Good acoustic installation
- Cold smoke seal

NV CFB UV Cavity Size and Thickness

Cavity Size	Product Thickness
10 mm	80 mm
20 mm	80 mm
30 mm	80 mm
+5 mm increments up to;	
95 mm	80 mm
100 mm	100 mm
+10 mm increments up to;	
600 mm	100 mm

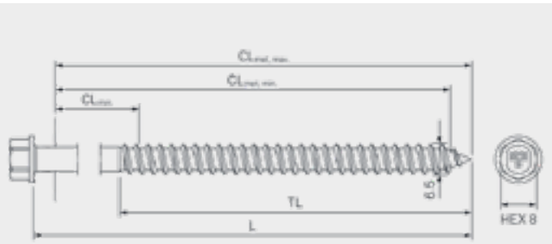
Fixings for Cavity Fire Barriers

For Barrier Brackets



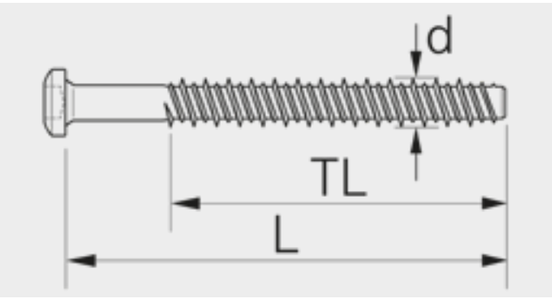
Steel Substrate

Product Code
SX3/9-S16/A4-6x29-A4
SX3/18-S16/A4-6x38-A4
SX3/20-S16/A4-6x50-A4
SX3/28-S16/A4-6x48-A4



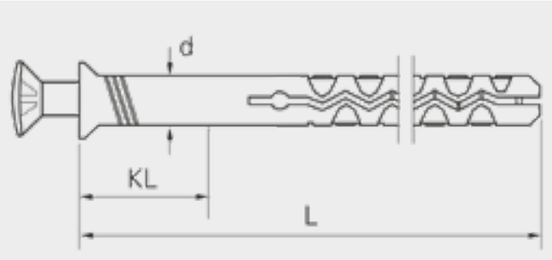
Timber Substrate

Product Code
TDA-S-S16/A4-6,5x60-A4
TDA-S-S16-6,5x20
TDA-S-S16-6,5x25
TDA-S-S16-6,5x32
TDA-S-S16-6,5x40



Concrete/Brick/Block Substrate

Sleeveless Option – Product Code
TI-S-Z10-6,3x45
TI-S-Z10-6,3x75
TI-S-Z10-6,3x115

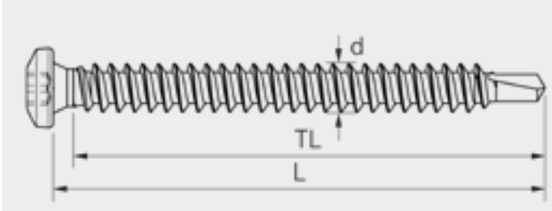


Concrete/Brick/Block Substrate

Sleeved Option – Product Code
MNA-S-6,0x35
MNA-S-6,0x50
MNA-S-6,0x60

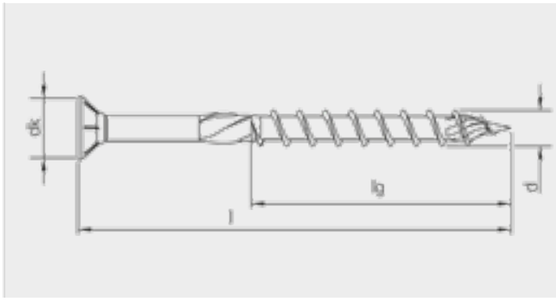
Fixings for Cavity Fire Barriers

For Direct Fix



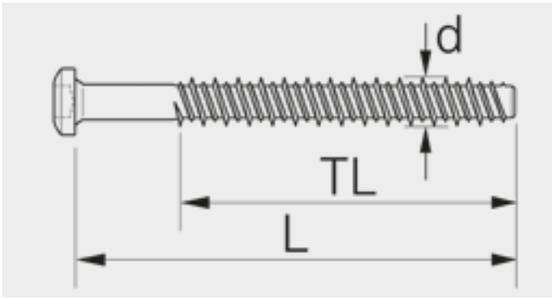
Steel Substrate

Product Code
BS-S-4,8x60
BS-S-4,8x80
BS-S-4,8x100
BS-S-4,8x120
BS-S-4,8x140
BS-S-4,8x160



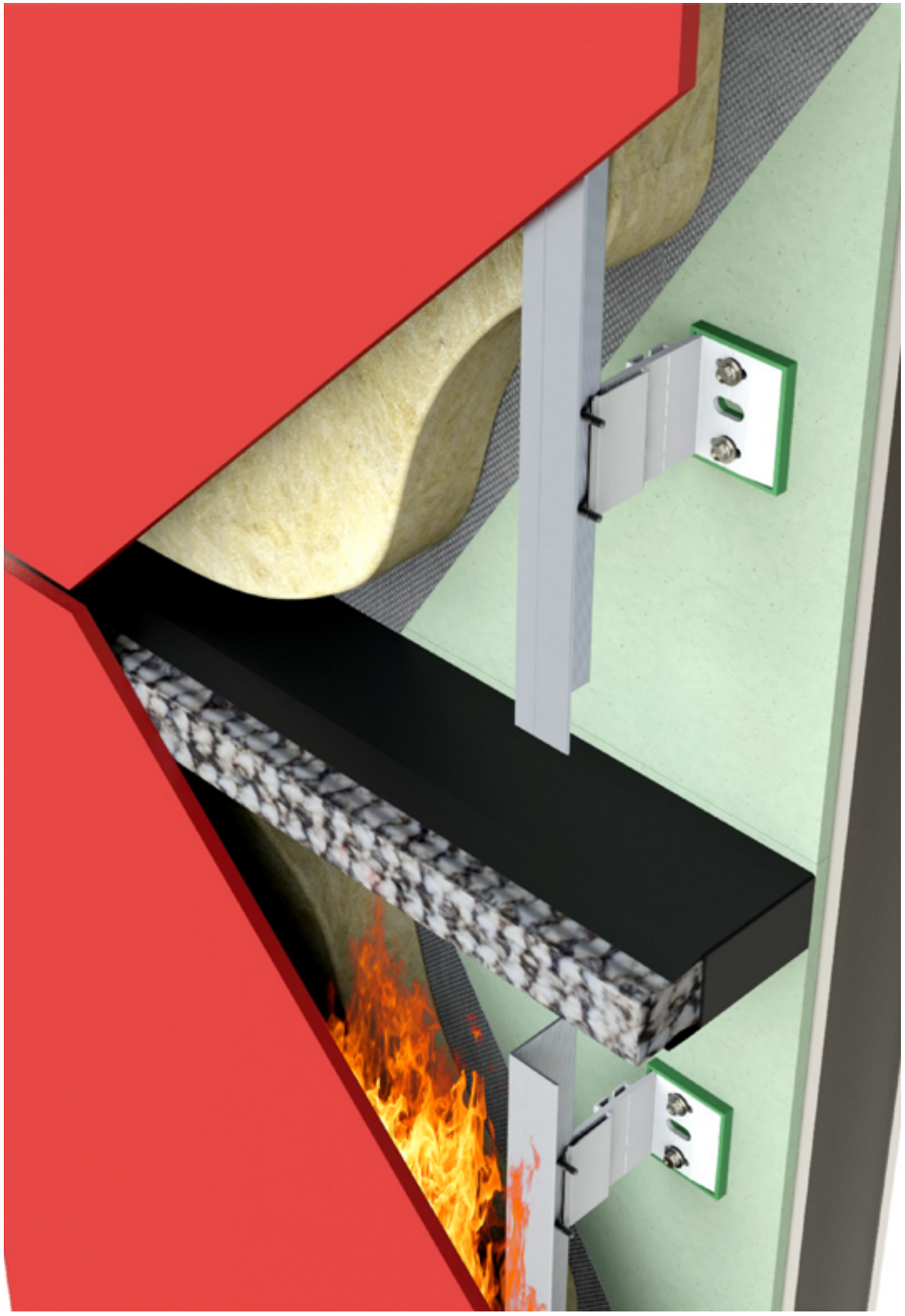
Timber Substrate

Product Code
HTP-S-CS-PT-6,0x60
HTP-S-CS-PT-6,0x70
HTP-S-CS-PT-6,0x80
HTP-S-CS-PT-6,0x90
HTP-S-CS-PT-6,0x100
HTP-S-CS-PT-6,0x110
HTP-S-CS-PT-6,0x120
HTP-S-CS-PT-6,0x140
HTP-S-CS-PT-6,0x160



Concrete/Brick/Block Substrate

Sleeveless Option – Product Code
TI-S-Z10-6,3x45
TI-S-Z10-6,3x75
TI-S-Z10-6,3x115



Additional Support

Interested in our Cavity Fire Barriers?

Complete our short survey with your requirements and one of our specialist advisors will be in touch...

Take Me To The Survey

Datasheets

Cavity Fire Barrier	Description
NV CFB 6	PDF | 0.97MB →
NV CFB 12	PDF | 1MB →
NV CFB EXTRA	PDF | 1.05MB →
NV CFB 12/50	PDF | 0.9MB →
NV CFB UV	PDF | 3.02MB →

Speak to Technical Support

Email: info-nvelope@sfs.com →
Tel: +44 (0)330 0555 888

SFS ConnectSuite® Tools

Designed to support you through the lifecycle of designing a project.

View Project Builder →

SFS Group Fastening Technology Ltd.
Division Construction
153 Kirkstall Road
Leeds, LS4 2AT
ukenquiries@sfs.biz
www.uk.sfs.com