



# Cavity Barriers for Façades

# Passive Fire Protection for building façades.

Tenmat offers Ventilated Fire Barriers suitable for a wide range of cavity sizes and constructions. Modern constructions often require external cladding, external facades and rainscreen systems to be held away from the building structure to allow ventilation and improve the building energy efficiency.

This resulting cavity creates a serious fire protection threat to structures and people. The void acts like an open chimney and allows the fire to spread quickly both vertically and horizontally around the building.

Tenmat's range of Intumescent Ventilated Fire Barriers or 'Open State' Cavity Fire Barriers are designed to maintain the ventilated cavity in normal conditions but will rapidly expand to seal off the gap in the event of a fire.



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### **Product Description**



The FF102/25 Ventilated Cavity Fire Barrier, is manufactured from low smoke zero halogen high expansion intumescent material and is designed to reinstate fire resisting performance to external wall cavities that are required to be ventilated (open-state) in non-fire conditions.

The FF102/25 is manufactured from a rigid intumescent material allowing it to be provided in a strip format, it is also covered with a protective layer of aluminium foil for ease of handling and increased durability. In the event of a fire the FF102/25 intumescent material will expand to close the external wall cavity, providing effective fire resistance, for integrity and insulation for up to 60 minutes depending upon the construction of the external walls.

The FF102/25 is designed for use within a designed 25mm cavity, and once installed will close the remaining free air gap (in front of the 4mm cavity barrier) of 21mm.

### **Product Details**

- A fire rated product designed to act as an external wall cavity barrier at the junction of compartment floors, within uninsulated cavities
- Tested and proven to reinstate the fire resistance performance within "open-state" external wall cavities for periods up to 60 minutes, for both integrity and insulation to the principles of EN 1363-1 and in accordance with ASFPTGD 19 guidance
- Ventilated design developed to allow maximum ventilation of cavities reducing the need for cavity trays or weepholes
- Suitable for "open-state" ventilated cavities up to 25mm wide
- Lightweight designed to be easily and quickly installed
- No maintenance required after installation

Sizes

4 x 75mm x 1000mm





FF102/50 7

### **Product Description**



Tenmat's FF102/50, Ventilated Cavity Fire Barriers, are manufactured from a low smoke zero halogen high expansion intumescent material. They are designed to reinstate fire resisting performance to external wall cavities that are required to be ventilated (openstate) in non-fire conditions.

The FF102/50 is manufactured from a rigid intumescent material allowing it to be provided in a strip format, it is also covered with a protective layer of aluminium foil for ease of handling.

In the event of a fire the FF102/50 intumescent material will expand to close the external wall cavity, providing effective fire resistance, for integrity and insulation for up to 120 minutes depending upon the construction of the external walls.

The FF102/50 is designed for use within cavities of up to 50mm and once installed will close the remaining free air gap in front of the 6mm cavity barrier of up to a maximum of 44mm (depending on construction type).

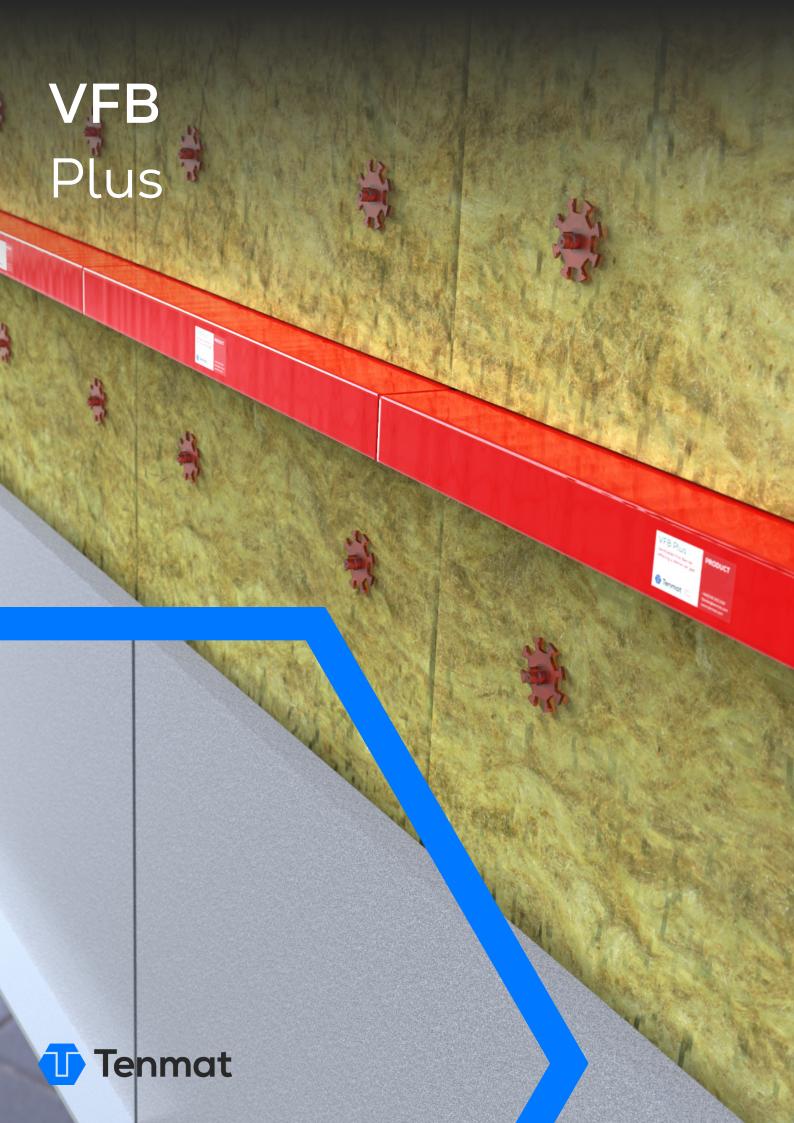
### **Product Details**

- An "open state" cavity fire barrier for use horizontally within uninsulated, ventilated and drained cavities
- Fire Rated for up to 120 minutes for both integrity and insulation when tested to the general principles of BS EN 1363-1 following ASFP TGD 19 guidance
- Ventilated design developed to allow maximum ventilation and drainage of cavities reducing the need for cavity trays or weepholes
- Suitable for "open-state" ventilated cavities up to 50mm wide
- · Lightweight designed to be easily and quickly installed
- No maintenance required after installation

Sizes

6 x 75mm x 1000mm





VFB Plus 9

### **Product Description**



Tenmat's VFB Plus Ventilated Fire Barriers are 'open state' cavity fire barriers for ventilated cavities of up to 450mm.

Each VFB Plus consists of a specially formulated fire rated stone mineral wool section with an integral high expansion intumescent seal fixed to the leading edge.

The VFB Plus then leaves a maximum 44mm air gap to allow for drainage and maintain ventilation in normal use.

In a fire situation the intumescent seal rapidly expands to seal off the air gap and prevent vertical fire spread within the external wall.

The product has undergone extensive fire testing following the principles of BS EN1363-1 and in accordance with ASFP TGD19 (Fire Resistance Test for 'Open-State' Cavity Barriers).

The VFB Plus are mechanically fixed horizontally within ventilated cavities behind the external wall substrate following the fire compartment line.

The VFB Plus are used horizontally and can be installed in conjunction with Tenmat NVFB Non-Ventilated Fire Barriers which provide vertical fire separation along fire compartment party wall lines.

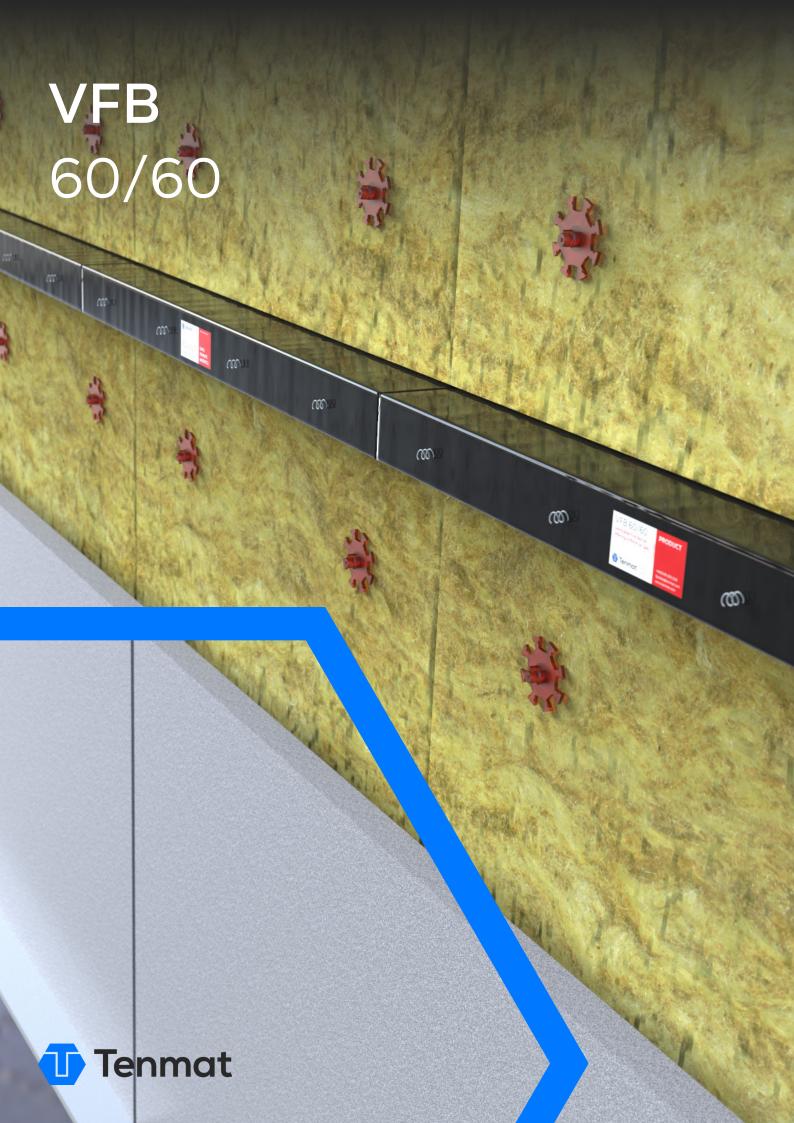
### **Product Details**

- Typical Fire Ratings of minimum 30 to 60 minutes Integrity and Insulation
- Higher Fire Ratings available dependent on application
- Maintains a 44mm air gap
- Up to 450mm cavities tested
- Standard thickness of 75mm
- Durability and Age Tested
- Fixing brackets included as standard

### **Dimensions**

Thickness (Total Cavity less 44mm Air Gap) x 75mm x 1000mm





VFB 60/60 11

### **Product Description**



Tenmat's VFB 60/60 Ventilated Fire Barriers are 'open state' cavity fire barriers for ventilated cavities of up to 450mm. Each VFB 60/60 consists of a specially formulated fire rated stone mineral wool section with an integral high expansion intumescent seal fixed to the leading edge.

The VFB 60/60 then leaves a maximum 25mm air gap to allow for drainage and maintain ventilation in normal use. In a fire situation the intumescent seal rapidly expands to seal off the air gap and prevent vertical fire spread within the external wall.

The products have undergone extensive fire testing following the principles of BS EN1363-1 and in accordance with ASFP TGD19 (Fire Resistance Test for 'Open-State' Cavity Barriers).

TheVFB60/60saremechanicallyfixedhorizontallywithinventilated cavities behind the external wall substrate following the fire compartment line. The VFB 60/60s are used horizontally and can be installed in conjunction with Tenmat NVFB Non-Ventilated Fire Barriers which provide vertical fire separation along fire compartment party wall lines.

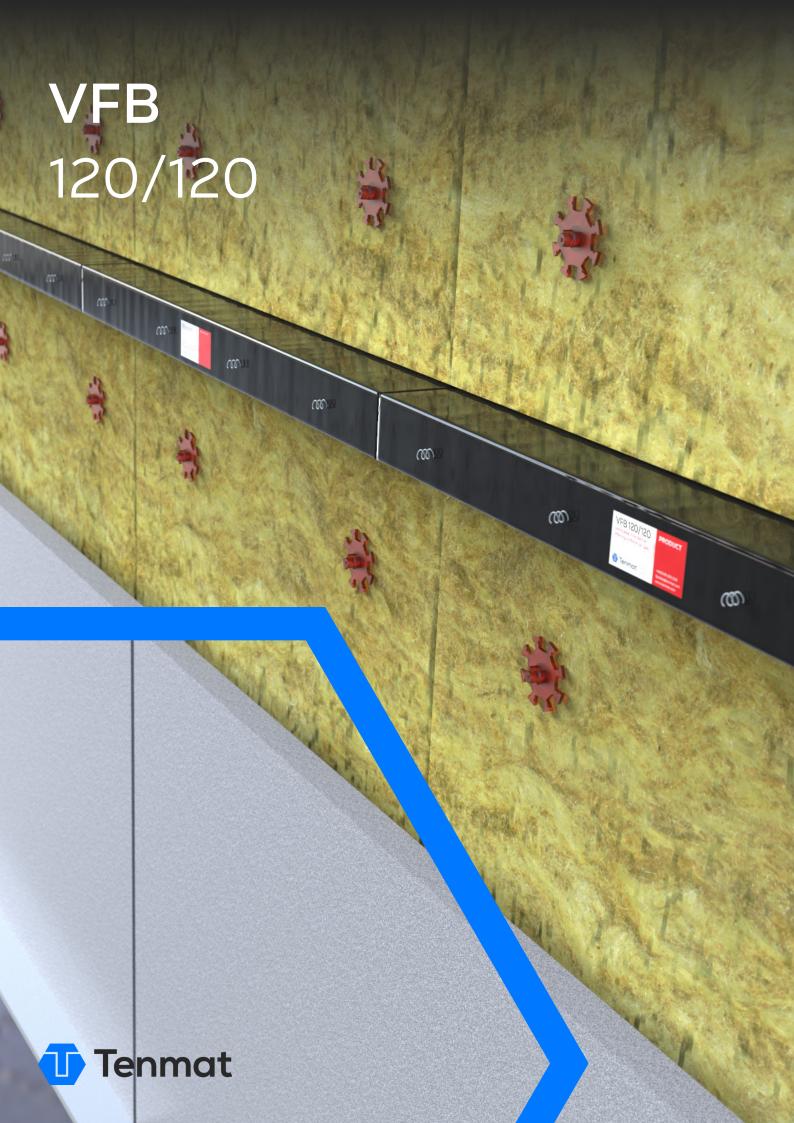
### **Product Details**

- Typical Fire Ratings of minimum 60 Minutes Integrity and Insulation
- Higher Fire Ratings available dependent on application
- Maintains a 25mm air gap
- Up to 450mm cavities tested
- Standard thickness of 75mm
- Durability and Age Tested
- · Fixing brackets included as standard

**Sizes** 

Thickness (Total Cavity less 25mm Air Gap) x 75mm x 1000mm





VFB 120/120 13

### **Product Description**



Tenmat's VFB 120/120 Ventilated Fire Barriers are 'open state' cavity fire barriers for ventilated cavities of up to 450mm. Each VFB 120/120 consists of a specially formulated fire rated stone mineral wool section with an integral high expansion intumescent seal fixed to the leading edge.

The VFB 120/120 then leaves a maximum 25mm air gap to allow for drainage and maintain ventilation in normal use. In a fire situation the intumescent seal rapidly expands to seal off the air gap and prevent vertical fire spread within the external wall.

The products have undergone extensive fire testing following the principles of BS EN1363-1 and in accordance with ASFP TGD19 (Fire Resistance Test for 'Open-State' Cavity Barriers).

The VFB 120/120s are mechanically fixed horizontally within ventilated cavities behind the external wall substrate following the fire compartment line. The VFB 120/120s are used horizontally and can be installed in conjunction with Tenmat NVFB Non-Ventilated Fire Barriers which provide vertical fire separation along fire compartment party wall lines.

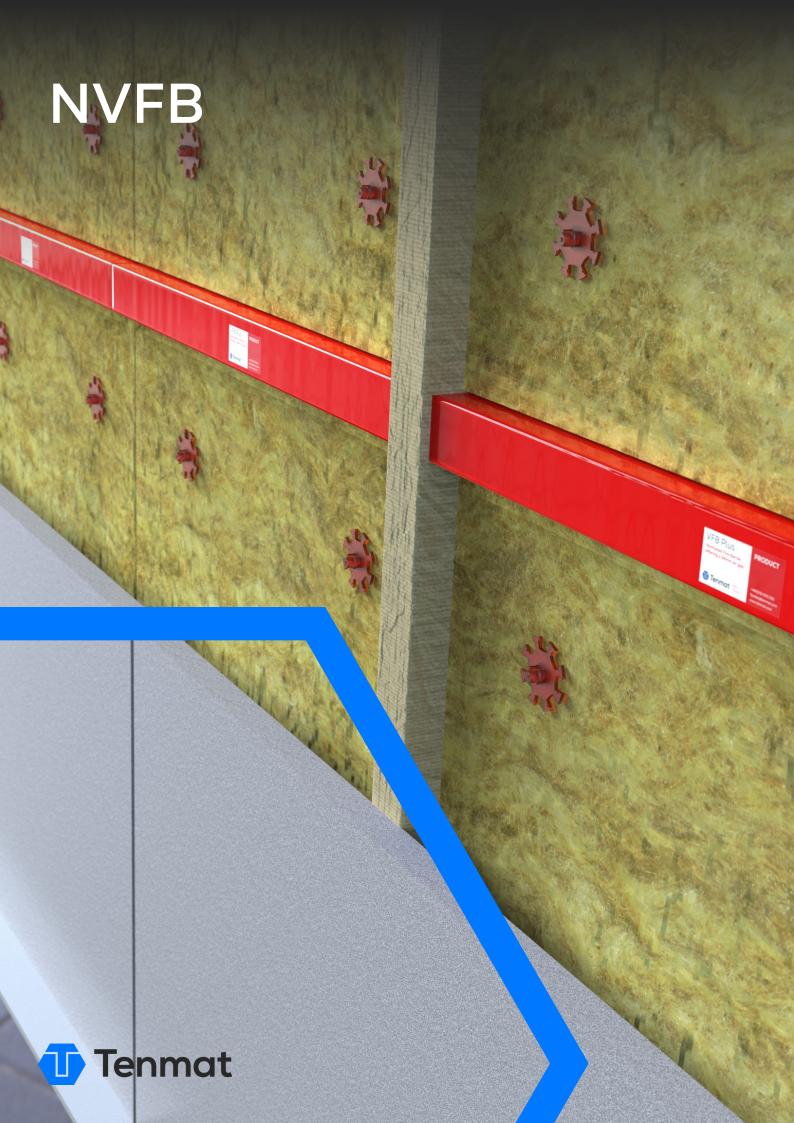
### **Product Details**

- Fire Ratings of 120 Minutes Integrity and Insulation for up to 300mm cavities
- Fire Ratings of 90 Minutes Integrity and Insulation for 300mm to 450mm cavities
- Maintains a 25mm air gap
- Up to 450mm cavities tested
- Standard thickness of 75mm
- Durability and Age Tested
- Fixing brackets included as standard

**Sizes** 

Thickness (Total Cavity less 25mm Air Gap) x 75mm x 1000mm





NVFB 15

### **Product Description**



Tenmat's NVFB Non-Ventilated Cavity Fire Barriers, are manufactured from stone mineral wool with an A1 Reaction to Fire Rating and are designed to maintain fire resisting performance to external wall cavities.

The NVFB is capable of providing effective fire resistance, for integrity (E) and insulation (I) for up to 120 minutes (EI120) depending upon the orientation of the NVFB and the construction of the external walls.

Tenmat NVFB is supplied cut to size to suit the cavity width or can be supplied in full slabs. It is supplied as plain stone mineral wool as standard and can also be supplied with foil encapsulation or with an integral DPC.

The NVFB is designed for use within cavities up to 600mm wide and only requires 5mm of compression when fitting.

### **Product Details**

- Cavity Fire Barrier for use at: Compartment Floor, Compartment/Party Walls & Around Openings
- UL-EU 3rd Party Certification
- Fire Resistance Classification to EN 13501-2
- AS1530.4 & AS4072.1 Assessment Report
- A1 Reaction to Fire
- Fire Rated up to 120 minutes integrity and insulation (El120)
- Suitable for cavities up to 600mm
- Suitable for use vertically and horizontally
- Tested for use in conjunction with masonry support brackets
- Tested with SFS Systems with calcium silicate fibre cement boards
- Provided in 1 metre lengths
- Standard thickness/depth of 100mm
- Available in a reduced thickness/depth of 82mm
- Optional integral DPC to prevent moisture migration
- Supplied plain as standard. Optional foil encapsulation available
- No maintenance required after installation

### Sizes

### Cut to Size:

100mm Deep x Width to suit cavity (+5mm for compression fit) x 1000mm

### Full Slabs:

100mm x 605mm x 1003mm (available plain or foiled). 100mm x 1000mm x 1200mm (available plain only). Non-standard 82mm thickness available upon request.





NVFB Cassette Infill 17

### **Product Description**

Tenmat NVFB Cassette Infill (NVFB-CI) is a 150mm wide strip of 110kg/m³ density, non-combustible stone wool, the thickness required is dependent on the depth of the cassette panel up to 31mm deep.

Tenmat NVFB Cassette Infill (NVFB-CI) is adhered to the inner face of the cassette panel using PFC Corofil Fire Resistant Silicone Sealant and should finish flush with the face of the cassette panel facing into the void and allows the intumescent open state barrier to maintain a continuous air gap at the back of the panel without the need to notch around the panel joints.

Tenmat NVFB Cassette Infill (NVFB-CI) is tested to the principles of EN1363-1 and ASFP Technical Guidance Document 19 (TGD19).

Tenmat NVFB Cassette Infill (NVFB-CI) is designed for use with the Tenmat VFB 120/120 Ventilated Fire Barrier (Open State Cavity Barrier comprising of FF102 4mm thick intumescent strip with stonewool backing). The NVFB-CI should fill out the depth of the cassette panel, allowing a continuous air gap to be maintained behind the cassette panel without the need for notching around the panel joints.

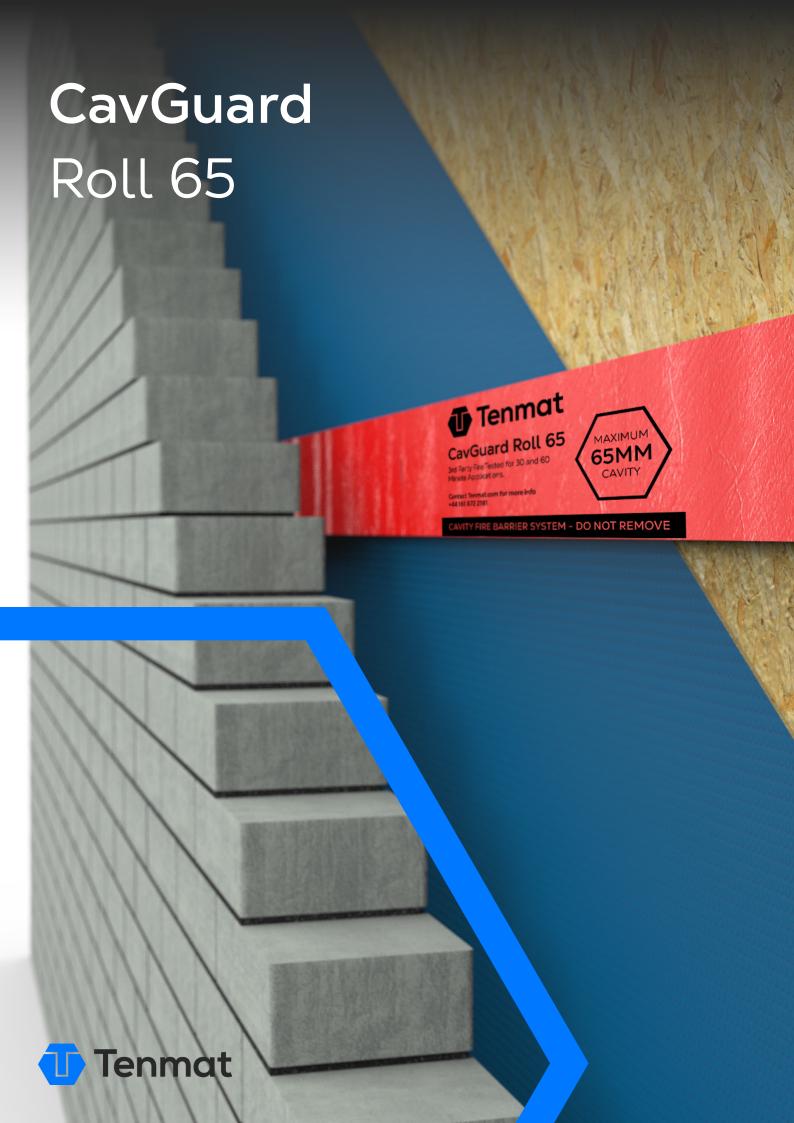
### **Product Details**

- Tested to the general principles of EN1363-1 and following ASFP Technical Guidance Document 19 (TGD19)
- Manufactured from the same stone wool as Tenmat VFB 120/120 Ventilated Fire Barrier
- Suitable for cavity widths between 90mm and 300mm

**Sizes** 

150mm wide x depth to suit panel (up to 31mm deep) x 1000mm long





CavGuard Roll 65

### **Product Description**



Tenmat's CavGuard Roll 65 is a cavity fire barrier designed to firestop the cavity behind external walls consisting of outer substrates of masonry or brickwork. The low smoke zero halogen highly expansive intumescent material allows ventilation to be maintained in non-fire conditions.

The CavGuard Roll 65 is made from a flexible intumescent material allowing it to be provided in a roll format. With a thickness of only 6mm, the low profile design offers significant space and labour saving over traditional cavity socks, whilst also ensuring the external cavity is left unobstructed and free to ventilate. It is also covered with a protective layer of polythene for ease of handling and to protect it from water.

In the event of a fire the CavGuard Roll 65's intumescent material will expand to close the external wall cavity, providing effective fire resistance, for integrity and insulation for 60 minutes\* depending upon the construction of the external wall cavity. The CavGuard Roll 65 is designed to close off a total cavity of 65mm which allows for building tolerances of up to 15mm (above the typical maximum cavity ventilation requirements of 50mm).

### **Product Details**

### **Technical**

- A fire rated product, providing fire resistance performance within external wall cavities, for periods up to 60 minutes\*
- Suitable for masonry and brickwork external substrates only
- Ventilated design developed to allow maximum ventilation of uninsulated cavities reducing the need for cavity trays or weepholes.
- Suitable for ventilated cavities up to 65mm wide, including building tolerances of up to 15mm (50mm + 15mm)
- Provided in rolls of 6.3m long

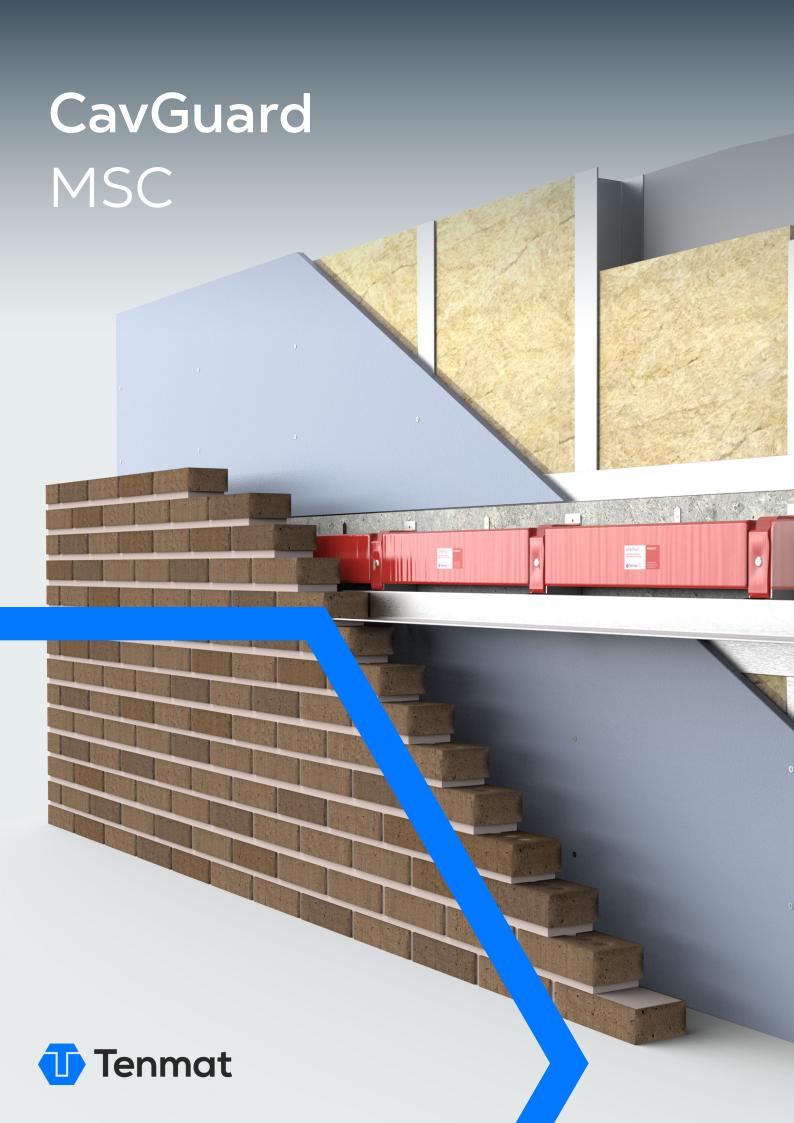
### Installation and maintenance

- Flexible and lightweight designed to be easily and quickly installed
- No maintenance required after installation

**Dimensions** 

6mm x 75mm x 6,300mm





CavGuard MSC 21

### **Product Description**



Tenmat's CavGuard Masonry Support Cover Plate (MSC) is a fire rated intumescent solution designed to react in a fire situation to seal within and in front of masonry support brackets that penetrate or disrupt cavity fire barrier locations.

The location of masonry support brackets can often result in them fully or partially penetrating cavity fire barrier locations. This can result in untested fire stopping solutions being employed in this location.

If cavity fire barriers and masonry support brackets are installed to fully fill the cavity in this area drainage is lost. In order to reinstate drainage to avoid damp and thermal bridging issues, additional cavity trays and weep vents must be installed in this area causing significant construction time, additional costs and complexity.

Tenmat have developed the CavGuard MSC to work in combination with Tenmat's VFB Plus 'open state' cavity fire barriers to provide an effective cavity fire barrier solution that ensures a continuous cavity barrier line that also maintains drainage in normal conditions.

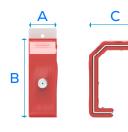
In a fire situation, the integral high expansion intumescent material in the CavGuard MSC expands to seal the air gap within and in front of the masonry support bracket whilst the 'open state' cavity fire barrier seals the cavity and air gap between the masonry support brackets.

The system has been fire tested to the principles of BS EN 1363-1 and in accordance with ASFP TGD19 guidance.

### **Product Details**

- Fire Tested to 120 minutes to allow for compartmentation continuation
- Leaves Continuous Free Air Space
- Intumescent Material expands to seal air gaps
- Reduces the need for cavity trays
- Stainless Steel and Intumescent Construction
- Working Life of 60 years\*
- Patent Pending

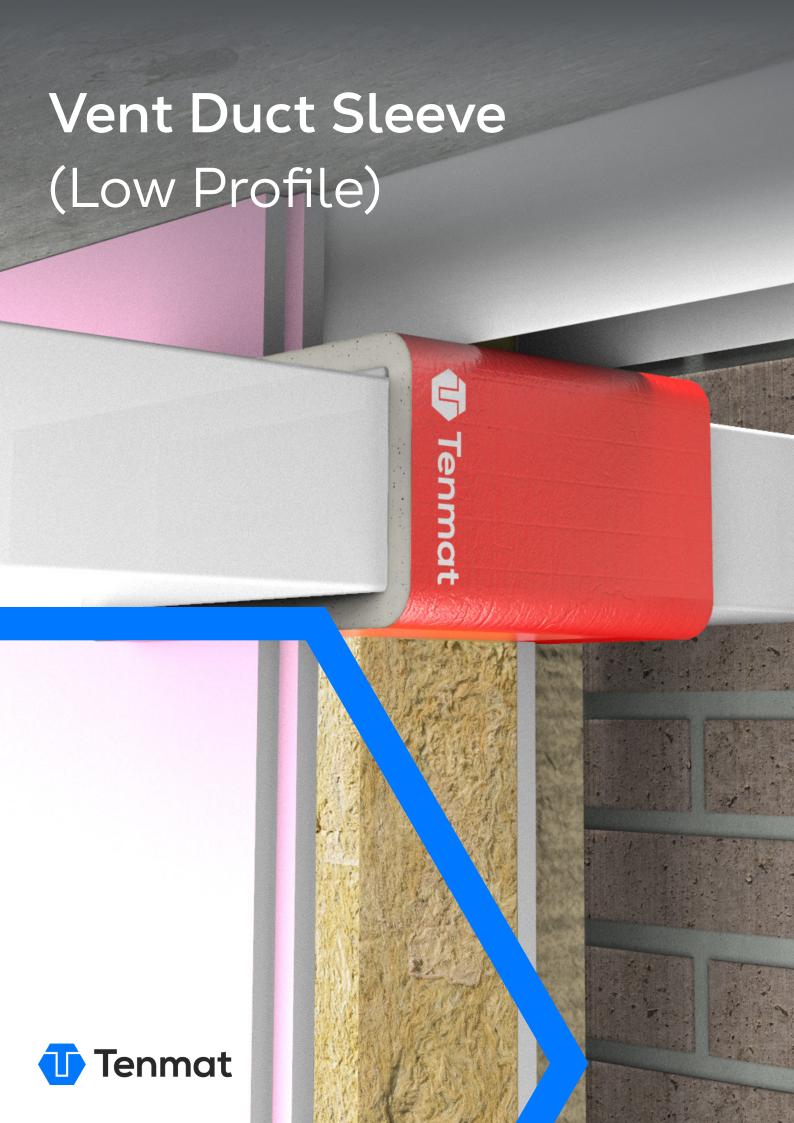
### **Sizes**



Sizes to suit Masonry Support Brackets for cavities up to 275mm\*\*

(\*\*Cavities can be up to a max. of 12mm larger than stated cavities to accommodate shimming out for building tolerance).

| Masonry Support to suit cavity size (mm) | Masonry Support External<br>Width Options (mm) | CavGuard MSC<br>Size | Width A (mm) | Height B<br>(mm) | Depth C<br>(mm) | VFB Plus Dimensions |
|--|--|----------------------|--------------|------------------|-----------------|---------------------|
| 112.5**                                  | 50/60/70/80                                    | 112 x Width (A)      | 42/50/58/64  | 116              | 87.5            | 88x75x1000mm        |
| 125**                                    | 50/60/70/80                                    | 125 x Width (A)      | 42/50/58/64  | 116              | 100             | 100x75x1000mm       |
| 150**                                    | 50/60/70/80                                    | 150 x Width (A)      | 42/50/58/64  | 116              | 125             | 125x75x1000mm       |
| 175**                                    | 50/60/70/80                                    | 175 x Width (A)      | 42/50/58/64  | 116              | 150             | 150x75x1000mm       |
| 200**                                    | 50/60/70/80                                    | 200 x Width (A)      | 42/50/58/64  | 116              | 175             | 175x75x1000mm       |
| 225**                                    | 50/60/70/80                                    | 225 x Width (A)      | 42/50/58/64  | 116              | 200             | 200x75x1000mm       |
| 250**                                    | 50/60/70/80                                    | 250 x Width (A)      | 42/50/58/64  | 116              | 225             | 225x75x1000mm       |
| 275**                                    | 50/60/70/80                                    | 275 x Width (A)      | 42/50/58/64  | 116              | 250             | 250x75x1000mm       |



### **Product Description**



The FF109 Vent Duct Fire Sleeve Low Profiles (VDS LPs) are a family of CE Marked fire penetration seals designed to firestop PVC ventilation ducts / pipes when installed through fire rated constructions.

The unique vacuum formed intumescent material design ensures that the expansion direction of the material crushes and seals the ducting in a fire situation without the need for any additional support or metal sleeving.

The lack of metal sleeving, not only makes installation easy, it also limits the risk of heat transfer through the structure as well as allowing compression to ensure a tight seal against fire and smoke or tight fitting against the ceiling soffit where needed.

The Fire Sleeves provide fire resistance ratings for Integrity (E) and Insulation (I) for up to EI90 minutes in an external wall construction.

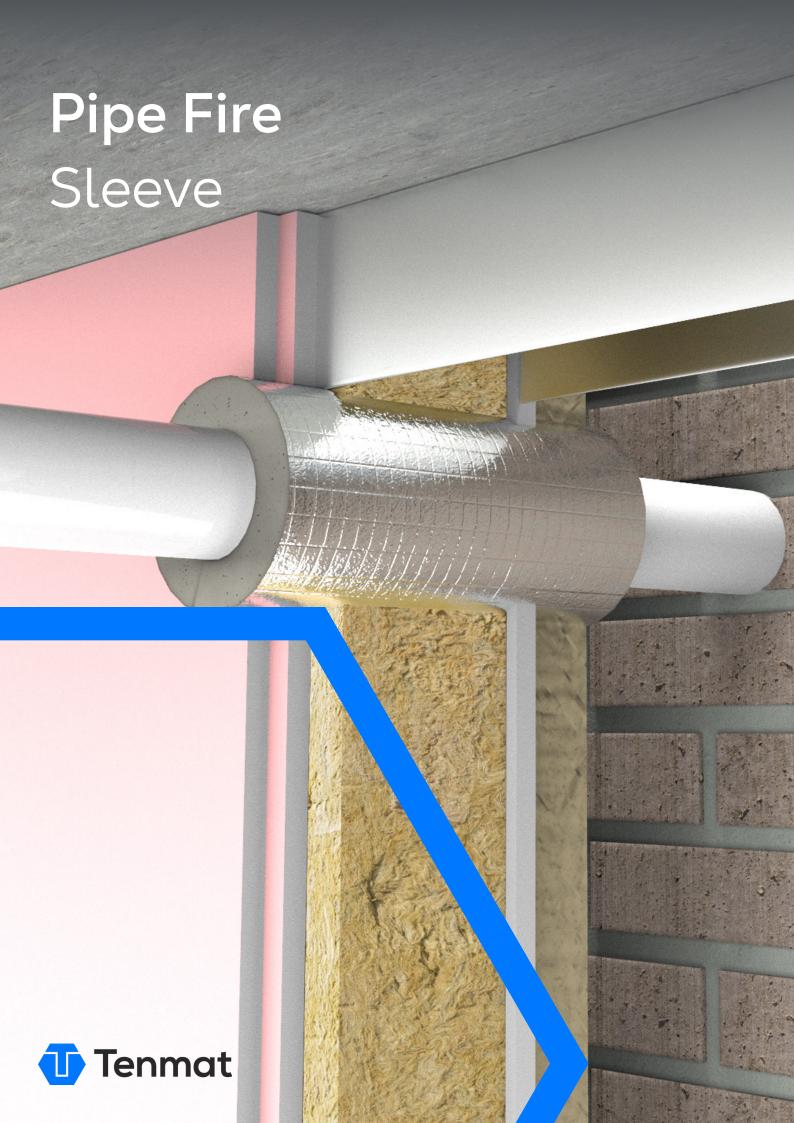
### **Product Details**

- Fire rated product up to El 90 minutes
- Tested in external wall / SFS constructions
- U/U Uncapped/Uncapped tested as required for ventilated systems
- Can be retro fitted
- Low profile design
- Available preformed and ready to install in both circular or rectangular shapes
- · No metal sleeving or boxing out required

### **Sizes**

| Duct Size     | Nominal Thickness | Nominal External Width / Diameter | Nominal External Height | Length |
|---------------|-------------------|-----------------------------------|-------------------------|--------|
| 110x54mm      | 10-15mm           | 134mm                             | 83mm                    | 180mm  |
| 204x60mm      | 10-15mm           | 228mm                             | 89mm                    | 180mm  |
| 204x60mm      | 10-15mm           | 228mm                             | 89mm                    | 360mm  |
| 220x90mm      | 10-15mm           | 244mm                             | 124mm                   | 180mm  |
| 220x90mm      | 10-15mm           | 244mm                             | 124mm                   | 360mm  |
| 100mm (103mm) | 15mm              | 244mm                             | -                       | 180mm  |
| 125mm (127mm) | 15mm              | 160mm                             | -                       | 280mm  |





Pipe Fire Sleeve 25

### **Product Description**



The FF109 Pipe Fire Sleeves (PFS) are a range of passive fire protection penetration seals designed to firestop insulated metal and combustible plastic pipes.

The Fire Sleeves offer Fire, Acoustic, Thermal and Vapour seal performance to a range of pipes passing through external wall constructions.

The CE Marked range are fire tested in accordance with EN 1366-3 including in external walls with additional assessments to BS 476 Part 20.

The FF109 Pipe Fire Sleeves (PFS) are manufactured from a unique, low smoke, zero halogen intumescent material. The Fire Sleeves are supplied pre-formed and ready to install to suit a variety of pipe diameters.

With a nominal thickness of 25mm, the compressible intumescent sleeve is supplied wrapped in a reinforced aluminium foil allowing it to be cut down its length and retro-fitted around the pipes. This provides an effective fire, smoke and acoustic seal whilst also allowing for some thermal movement.

Fire Ratings of up to EI90 minutes in external wall / SFS constructions.

### **Product Details**

- CE Marked
- 4-in-1 Solution Fire, Acoustic, Thermal and Vapour Seal
- Up to EI90 Minutes Fire Rating in External Walls / SFS Systems
- Suitable for various ABS pipes up to 55mm diameter and PVC Plastic Pipes up to 110mm diameter
- Simple & quick to install, no fixings or sleeving required
- Lubrizol Approved
- FBC™ System Compatible

Sizes

Nominal Thickness of Sleeve - 25mm

Diameters available – 17 to 114mm (check with Tenmat on exact tested pipe sizes)

Standard Fire Sleeve Length - 300mm

### Cavity Barriers for Façades



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