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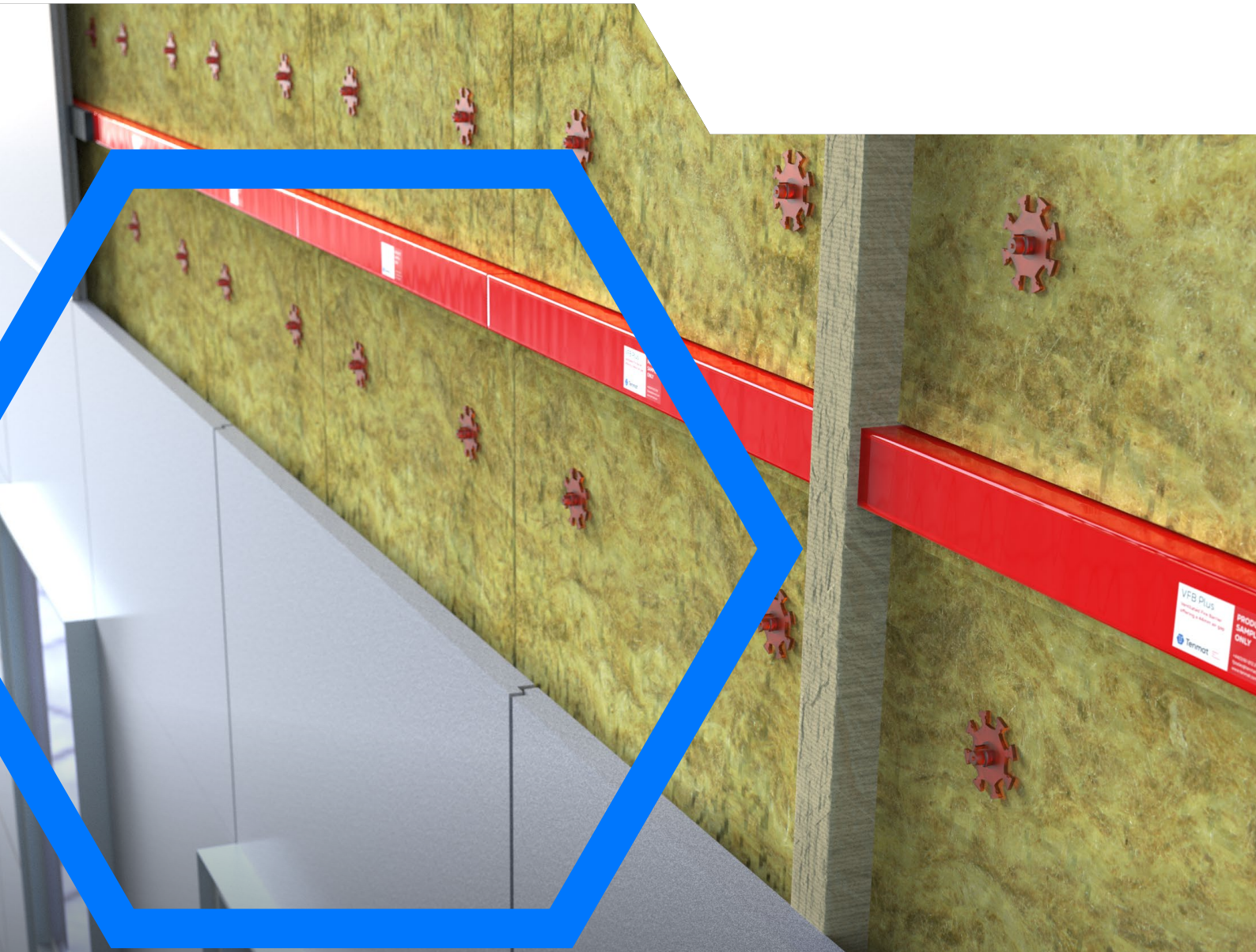


NVFB

Non Ventilated Fire Barrier

Tenmat's NVFB (non-ventilated fire barrier) is designed to maintain fire resistance performance within external wall cavities.

Passive Fire Protection

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 foil faced.

The NVFB is designed for use within cavities up to 600mm wide.

Product Details

- CCPI Verified
- 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 (EI120)
- 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
- Provided in 1 metre lengths
- Standard thickness/depth of 100mm
- Available in a reduced thickness/depth of 82mm
- Tested with DPCs to prevent moisture migration
- Supplied plain as standard. Optional foil faced available.
- No maintenance required after installation

Sizes

Cut to Size:

100mm Deep x Width to suit cavity (+ required compression) x 1000mm

Full Slabs:
100mm x 605mm x 1003mm (available plain or foil faced).
100mm x 1000mm x 1200mm (available plain or foil faced).
Non-standard 82mm x 605mm x 1003mm and 82mm x 1000mm x 1200mm (available plain or foil faced) available upon request.

Approved Applications

Non-Ventilated/Closed State Cavity Fire Barriers for external wall cavities.

CCPI ASSESSED PRODUCT INFORMATION 002300002/1227 Cavity Barriers

UL EU

NBS

Tenmat

Fire Test Evidence

UL-EU 3rd Party Certification to BS EN1366-4 or 3rd Party Fire Test evidence generally in accordance with BS EN 1366-4: 2021

Inner Leaf Substrate Type (facing cavity) with appropriate fire resistance	Outer Leaf Substrate Type (facing cavity) with appropriate fire resistance	Damp Proof Course (DPC)	Orientation	Insulation Type Within Cavity	To suit cavity widths (in mm)	Compression required	Thickness of NVFB (mm)	Product Fire Resistance Rating		
								Integrity (E)	Insulation (I)	Classification (EI)
Rigid Walls										
Masonry or Concrete min. 100mm thick	Masonry or Concrete min. 100mm thick	Yes	Vertical	None	10-200	5mm	100	120	120	120*
Masonry or Concrete min. 100mm thick	Masonry or Concrete min. 100mm thick	Yes	Vertical	None	201-300	5mm	100	120	120	**
Masonry or Concrete min. 150mm thick	Masonry or Concrete min. 150mm thick	Yes	Vertical	None	301-600	5mm	100[1]	120	30	30*
Masonry or Concrete min. 100mm thick	Masonry or Concrete min. 100mm thick [2]	Yes	Vertical	None	10-300	2mm	100	120	30	30*
Rigid Floors										
Masonry or Concrete min. 150mm thick	Masonry or Concrete min. 150mm thick	Yes	Horizontal	None	10-100	5mm	100	120	120	120*
Masonry or Concrete min. 150mm thick	Masonry or Concrete min. 150mm thick	Yes	Horizontal	None	101-200	5mm	100	120	90	90*
Masonry or Concrete min. 150mm thick	Masonry or Concrete min. 150mm thick	Yes	Horizontal	None	201-300	5mm	100	120	120	**
Masonry or Concrete min. 150mm thick	Masonry or Concrete	Yes	Horizontal	None	301-450	5mm	100[1]	120	30	30*
Masonry or Concrete min. 150mm thick	Masonry or Concrete min. 150mm thick	Yes	Horizontal	None	451-595	5mm	100[1]	60	30	30*
Masonry or Concrete min. 100mm thick	Masonry or Concrete min. 100mm thick	Yes	Horizontal	None	10-300	2mm	100	120	30	30*
SFS System - Vertical Application										
SFS System Wall[3]	Masonry or Concrete Walls	Yes	Vertical	Stonewool	10-600	5mm	100[1]	120	30	30*
SFS System Wall[12]	Masonry or Concrete Walls min. 150mm thick	Yes	Vertical	Stonewool	10-300	2mm	100 - FF	120	60	**
SFS System Wall [5]	Masonry or Concrete min. 100mm thick	Yes	Vertical	Stonewool	10-450	2mm	100	120	30	30*
SFS System Wall [6]	Masonry or Concrete min. 100mm thick [2]	Yes	Vertical	Stonewool	10-300	0mm	100	120	30	**
SFS System Wall[6]	Rockpanel Rainscreen (9mm thick)	N/A	Vertical	Stonewool	10-320	0mm	100	120	90	**
SFS System Wall [10]	Masonry or Concrete min. 100mm thick[11]	Yes	Vertical	Stonewool	10-300	0mm	100	120	120	**
SFS System - Horizontal Application										
SFS System Wall [3]	Masonry or Concrete Walls	Yes	Horizontal	Stonewool	10-595	5mm	100[6]	120	60	60*
SFS System Wall [5]	Masonry or Concrete min. 100mm thick [2]	Yes	Horizontal	Stonewool	10-450	2mm	100	120	30	30*
SFS System Wall [6]	Masonry or Concrete min. 100mm thick[2]	Yes	Horizontal	Stonewool	10-300	0mm	100	120	120	**
SFS System Wall [10]	Masonry or Concrete min. 100mm thick[11]	Yes	Horizontal	Stonewool	10-300	0mm	100	90	90	**

For details of tested substrates see next page.

Fire test evidence, safety data sheets and previous versions of product information are all available upon request by contacting Tenmat, please click here

UL-EU 3rd Party Certification to BS EN1366-4 or 3rd Party Fire Test evidence generally in accordance with BS EN 1366-4: 2021

Inner Leaf Substrate Type (facing cavity) with appropriate fire resistance	Outer Leaf Substrate Type (facing cavity) with appropriate fire resistance	Damp Proof Course (DPC)	Orientation	Insulation Type Within Cavity	To suit cavity widths (in mm)	Compression Required	Position of Masonry Support Brackets	Minimum Thickness of NVFB (mm)	Product Fire Resistance Rating		
									Integrity (mins)	Insulation (mins)	Classification (EI)
Rigid Floor with Masonry Support Brackets											
Masonry or Concrete min. 150mm thick with masonry support brackets	Masonry or Concrete min. 150mm thick	Yes	Horizontal	None	10-200	5mm	Recessed by min. 28mm	100[1]	120	120	120*
Masonry or Concrete min. 150mm thick with masonry support brackets	Masonry or Concrete min. 150mm thick	Yes	Horizontal	None	201-450	5mm	Recessed by min. 28mm	100[1]	120	30	30*
Rigid Floor with Masonry Support Brackets - Foil Faced Only											
Masonry or Concrete min. 150mm thick with masonry support brackets	Masonry or Concrete min. 150mm thick	Yes	Horizontal	None	10-300	3mm	Flush or Recessed	100 - FF	120	30	**
Masonry or Concrete min. 150mm thick with masonry support brackets	Masonry or Concrete min. 150mm thick	Yes	Horizontal	None	10-300	3mm	Protruding by max. 40mm	100 - FF	120	30	**
SFS System with Render Outer											
SFS System Wall [4]	Mineral Fibre / Render Insulation Board [7]	N/A	Vertical	None	10-60	2mm	N/A	100	120	120	**
SFS System Wall [13]	Rockwool Rain-screen DuoSlab[8]	N/A	Vertical	None	10-60	2mm	N/A	100	120	60	**
Timber Frame Systems											
Timber Frame [9]	Masonry or Concrete	Yes	Vertical	None	10-123	2mm	N/A	100	60	60	**
Timber Frame [9]	Masonry or Concrete	Yes	Vertical	None	124-297	2mm	N/A	100	60	30	**

3rd Party Certification
UL-EU - Certificate No. UL-EU-01265-CPR

Fire test evidence, safety data sheets and previous versions of product information are all available upon request by contacting Tenmat, please click here

* Fire Test evidence included in 3rd Party Certification UL-EU-01265-CPR
** 3rd Party Fire Test evidence tested generally in accordance with BS EN 1366-4: 2021, not included in UL-EU certification.

NVFB has been tested with a DPC layer for use with external masonry walls. Tested DPC was a combustible polythene based damp proof course (DPC) which also covers the use of non-combustible damp proof course (DPC).

FF = Foil Faced version tested.

[1] 82mm thick option available.

[2] Fire tested substrate was 100mm thick aerated concrete blocks at 575kg/m3 density, equal or greater thickness and density of masonry or concrete is approved (typical density of house bricks is 1300-2200kg/m3).

[3] SFS System build up - 135mm overall thickness, comprising 90mm Metsec C stud, clad internally with 2 x 15mm Knauf Fire Panel, clad externally with 1 x 12mm RCM Y-Wall and minimum 75mm Rockwool Duo Slab. The supporting construction must be classified in accordance with EN13501-2 for the required fire resistance period. Certificate UL-EU-01265-CPR.

[4] SFS system build up - 123mm overall thickness, comprising 94mm Metsec C Stud, clad internally with 1x 20mm Glasroc F FireCase, filled with 100mm thick RWA45 insulation, clad externally with 1 x 10mm Cembrit cement particle board. Report 510756.

[5] SFS System build up - 125mm overall thickness comprising, 90mm and 94mm Metsec steel profiles and 100mm Rockwool insulation, clad internally with 1 x 12.5mm plasterboard, clad externally with 1 x 12.5mm Siniat Weather Defence gypsum based board. Certificate UL-EU-01265-CPR.

[6] SFS System build up - 127.5mm overall thickness comprising, 100mm x 35mm Caledan steel profiles and 100mm Rockwool steel frame slab insulation, clad internally with 1 x 15mm British Gypsum Gyproc wallboard, clad externally with 1 x 12.5mm British Gypsum Glasroc X gypsum based sheathing board. Cavity insulation was Rockwool Duoslab, DPC to face of NVFB was Visqueen Polythene Damp proof course, 1mm thick x 150mm wide. Report 537413B.

[7] Rockwool Dual Density 140kg/m3 & 100kg/m3 Mineral Fibre Slab, 90mm thick. Report 510756.

[8] Rockwool DuoSlab, Density 60kg/m3, Mineral Fibre Slab, 90mm thick. Report 534907B.

[9] Timber Frame inner substrate tests cover both OSB and Plywood sheathing boards (min. 9mm thick). Where OSB or Plywood sheathing boards are used, a minimum 38mm thick timber stud must be in place directly behind and in line with the cavity barrier. The fire rating required on Timber Frame projects would typically be expected to be 30 minutes only. The fire ratings and information provided in this document and supporting fire test evidence is not intended to be a complete specification for the proposed cavity barrier and it is the responsibility of others (the Principal Designer) to ensure that the product/assembly is suitable for the intended purpose.
Report 510756.

[10] SFS System build up - 122mm overall thickness comprising, 1.2mm x 94mm x 40mm Ash & Lacy Steel Head Track and 1.2mm x 90mm x 50mm deep Steel Stud with 100mm Rockwool RWA 45kg/m3 slab insulation stud infill, clad internally with 1 x 15mm British Gypsum Gyproc Fireline wallboard, Obex Cortex 0530FR Class B polypropylene Vapour Control Layer (VCL), clad externally with 1 x 12.5mm Klasse G-board, RTF Class A1, gypsum based sheathing board, Obex Cortex 0520FR, RTF Class B, thermoplastic PU film breather membrane on outer sheathing board, Obex Cortex FR polypropylene DPC at 0.5mm x 200mm wide between NVFB and outer substrate, bonded with Obex Cortex 0771FR Class B Paste Adhesive, Cavity insulation was KlasseRock VF500 Rainscreen Insulation, 100mm thick, 50kg/m3. Report 555912.

[11] Tested outer substrate was 100mm thick mortared brickwork. Report 555912.

[12] SFS System build up - 119mm overall thickness comprising, 1.2mm x 94mm x 32mm deep Speedline Steel Head Track and 1.2mm x 92mm x 32/34mm deep Steel Stud with 100mm Rockwool RWA 45kg/m3 slab insulation stud infill, clad internally with 1 x 12.5mm British Gypsum Gyproc Wallboard, clad externally with 1 x 12.5mm Knauf Windliner Class A2 gypsum based sheathing board, 2x galv steel C-Channel 30x133mm & 30x210mm and 1x Aluminium C-Channel 27x176mm fixed to sheathing board and passed through NVFB, combustible LDPE DPC at 0.5mm x 150mm wide between NVFB and outer substrate, cavity insulation was Rockwool Rainscreen DuoSlab Insulation, 100mm thick, 56kg/m3. Report 545809B.

[13] SFS System build up - 118.5mm overall thickness comprising, 1mm x 94mm x 50mm Speedline steel profiles and 100mm Rockwool RWA45 stud infill insulation, clad internally with 1 x 15mm British Gypsum Gyproc wallboard, clad externally with 1 x 12mm Versapanel cement bonded sheathing board. Report 534907B.

AS Assessment Report AS1530.4 & AS4072.1 Report No. 4790682420-1

Inner Leaf Substrate Type (facing cavity) with appropriate fire resistance	Outer Leaf Substrate Type (facing cavity) with appropriate fire resistance	Damp Proof Course (DPC)	Orientation	Insulation Type Within Cavity	To suit cavity widths (in mm)	Compression required	Thickness of NVFB (mm)	Fire Resistance Rating		
								Integrity (E)	Insulation (I)	Classification (EI)
Rigid Walls										
Masonry or Concrete min. 100mm thick	Masonry or Concrete min. 100mm thick	Yes	Vertical	None	10-200	5mm	100	120	120	120*
Masonry or Concrete min. 150mm thick	Masonry or Concrete min. 150mm thick	Yes	Vertical	None	201-600	5mm	100[1]	120	30	30*
Rigid Floors - min. 150mm thick										
Masonry or Concrete min. 150mm thick	Masonry or Concrete min. 150mm thick	Yes	Horizontal	None	10-100	5mm	100	120	120	120*
Masonry or Concrete min. 150mm thick	Masonry or Concrete min. 150mm thick	Yes	Horizontal	None	101-200	5mm	100	120	90	90*
Masonry or Concrete min. 150mm thick	Masonry or Concrete	Yes	Horizontal	None	201-450	5mm	82	120	30	30*
Masonry or Concrete min. 150mm thick	Masonry or Concrete	Yes	Horizontal	None	451-595	5mm	82	60	30	30*
SFS System - Vertical Application										
SFS System Wall[3]	Masonry or Concrete Walls	Yes	Vertical	Stonewool	10-600	5mm	100[1]	120	30	30*
SFS System - Horizontal Application										
SFS System Wall [3]	Masonry or Concrete Walls	Yes	Horizontal	Stonewool	10-595	5mm	100[6]	120	60	60*

Inner Leaf Substrate Type (facing cavity) with appropriate fire resistance	Outer Leaf Substrate Type (facing cavity) with appropriate fire resistance	Damp Proof Course (DPC)	Orientation	Insulation Type Within Cavity	To suit cavity widths (in mm)	Compression Required	Position of Masonry Support Brackets	Thickness of NVFB (mm)	Product Fire Resistance Rating		
									Integrity (mins)	Insulation (mins)	Classification (EI)
Rigid Floor with Masonry Support Brackets											
Masonry or Concrete min. 150mm thick with masonry support brackets	Masonry or Concrete min. 150mm thick	Yes	Horizontal	None	10-200	5mm	Recessed by min. 28mm	100[1]	120	120	120*
Masonry or Concrete min. 150mm thick with masonry support brackets	Masonry or Concrete min. 150mm thick	Yes	Horizontal	None	201-450	5mm	Recessed by min. 28mm	100[1]	120	30	30*

AS Assessment Report
AS1530.4 & AS4072.1 Report No. 4790682420-1

NVFB has been tested with a DPC layer for use with external masonry walls. Tested DPC was a combustible polythene based damp proof course (DPC) which also covers the use of non-combustible damp proof course (DPC).

[1] 82mm thick option available.

[3] SFS System build up - 135mm overall thickness, comprising 90mm Metsec C stud, clad internally with 2 x 15mm Knauf Fire Panel, clad externally with 1 x 12mm RCM Y-Wall and minimum 75mm Rockwool Duo Slab. The supporting construction must be classified in accordance with EN13501-2 for the required fire resistance period. Certificate UL-EU-01265-CPR.

* Fire Test evidence included in AS1530.4 & AS4072.1 Assessment Report 4790682420-1 & 3rd Party Certification UL-EU-01265-CPR

Technical Information

Material	Stonewool
Finish	Plain (foil faced available)
Storage	Dry, ambient (see Safety Data Sheet)
Weight	Bespoke sizes ranging from 0.1kg to 12kg dependent on size to suit cavity width
Thermal Conductivity - EN 13162	λ_D = 0.035 W/mK
Reaction to Fire	Classified 'A1' to EN13501-1
Resistance to Fire	See Fire Test Evidence table
Durability of reaction to fire and thermal conductivity to EN 13162 (stone wool element)	Reaction to fire and thermal conductivity does not change with time against heat, weathering, ageing/degradation.

The product is not subject to any warning or ban under Section 26 of the NZ Building Act 2004.

Fire test evidence, safety data sheets and previous versions of product information are all available upon request by contacting Tenmat, please click here

Pre Specification

The principal designer must approve the use of any cavity barrier, whether open state or full fill, in conjunction with the products fire test evidence, taking full account of the whole construction of the external wall systems and components, including any requirements of National Building Regulations and or NHBC Standards.

The NVFB demonstrates functional compliance for various National Building Codes & Regulations including Approved Document B for England & Wales, Building (Scotland) Regulations 2004, Section 2.4 Cavities and NZ Building Code Clause C3: Fire affecting areas beyond the source.

Before a Tenmat NVFB cavity barrier is recommended, by Tenmat, the following information is required to ensure that the suggested product is considered suitable for the intended application within the construction as indicated by the client.

1) Project name, location and postcode.

2) Building height and use (as per ADB V1/2 2020).

3) Fire resistance period/rating required. Integrity and Insulation (EI).

4) Composition and construction of external walls, both inner and outer substrates.

5) Total external wall cavity size. (Maximum distance from outer face of inner substrate to inner face of outer substrate including tolerances/profiles).

6) Type and thickness of cavity insulation if present.

7) What ventilation gap is required horizontally? (Note: NVFB does not maintain a ventilation gap, if this is required then a Tenmat VFB / Open State Cavity Barrier should be considered)

8) Are non-vented cavity barriers required vertically and horizontally?

9) Quantity required to complete project?

10) When will materials be required?

11) Name and role of person completing form.

When the above information is obtained then this can be cross referenced with the full range of Tenmat cavity barriers to ensure that the product recommended, by Tenmat, is considered suitable for consideration by the principal designer/project fire engineer.

Installation Considerations

NVFB cavity barriers would typically be installed in a continuous run. Where this is not possible, details should be agreed with the projects principal designer and/or fire engineer.

Horizontal cavity barriers would generally be installed adjacent and tightly abutted to any vertical cavity barriers, the vertical NVFB cavity barriers would normally be installed first. NVFB cavity barriers may be cut to length as required, adjacent lengths must be tightly abutted together.

The product is typically tested without interruptions with the exception of masonry support brackets and steel/aluminium c-channels (see specific test evidence detail and check with Tenmat for tested applications).

The principal designer must sanction any interruptions, which may include items such as brackets, rails or battens, that may affect the continuous line of the cavity barrier. The principal designer must consider the combustibility, melting points and the shape of any interruptions, that are likely to prevent the cavity barrier performing as tested or as expected in the projects design.

If there are interruptions / obstructions that prevent the cavity barrier being fitted in a continuous line, and with sanction from the principal designer, the product may be cut tightly butted up against any obstructions and then restarted on the opposite side of the obstruction, the obstruction must not create a void which is not filled.

The cavity barrier should not be penetrated by any mechanical or electrical services other than the mechanical fixings which are used to fix the cavity barrier to the building, unless a non standard detail is agreed with the projects principal designer and/or fire engineer.

Cavity barrier fixing brackets must not penetrate through the face of the cavity barrier. Screws for direct fixing and fixings to secure brackets are not supplied by Tenmat.

The use of tape is not required over the joints between the lengths of NVFB.

A DPC (not supplied by Tenmat) should be applied when using the NVFB behind a masonry outer substrate (this follows NHBC guidance).

The Tenmat technical team should be consulted in any instance where the principal designer is uncertain as to any issues which may impede the ability of the cavity barrier to perform as expected.

Ensure the installation area is free from dust, oil and any corrosive material.

The cavity barrier should be installed onto a flat surface, with no gaps behind the cavity barrier. Check the mounting substrate is solid and free from cracks and degradation before beginning and in the case of timber frame systems with OSB sheathing board outer, ensure that the OSB sheathing board is minimum 9mm thick and a minimum 38mm thick timber stud is in place directly behind the OSB sheathing board following the line of the cavity barrier.

Fire Barrier Support Details

Product Width Min. to Max. (mm)	Orientation	Fitting Option Number	Barrier Support Type	No. of support (brackets) fixings per metre	Maximum Bracket Centres (mm)	Face Fixed Fixing Centres (mm)
15-80	Vertical or Horizontal	1	Screw	N/A	N/A	500
81-605	Vertical or Horizontal	2	MP Bracket	2	500	N/A
15-455	Horizontal only	3	MP Bracket	2	500	N/A

If cutting to width from 1000mm x 1200mm full slabs, ensure product is cut from the 1200mm dimension to ensure correct bracket support is provided.

A DPC should be applied when using the NVFB behind a masonry outer substrate (this follows NHBC guidance).

Where an NVFB is installed behind a DPC, face fixing of the NVFB must be completed prior to installation of the DPC, do not penetrate the DPC with fixings. (Tenmat does not supply a DPC).

Fitting Instructions

Option 1

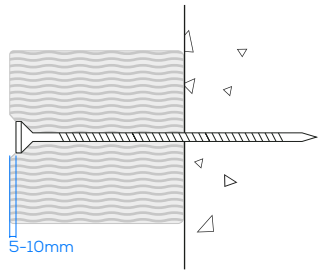
NVFB - Vertical and Horizontal
Product widths up to 80mm wide, directly face fixed.

Note:
If cutting the NVFB to size from a full slab for the above sizes, care should be taken to ensure cut dimension allows for the minimum compression to be achieved and that the cut edges are square. To ensure a square cut, the use of a cutting station/bench for accurate cutting could be considered.

If cutting to width from 1000mm x 1200mm full slabs, ensure the product is cut from the 1200mm dimension to ensure correct bracket/fixing support is provided. After cutting, all other instructions and fixings details below should be followed.

A DPC should be applied when using the NVFB behind a masonry outer substrate (this follows NHBC guidance).

Where an NVFB is installed behind a DPC, face fixing of the NVFB must be completed prior to installation of the DPC, do not penetrate the DPC with fixings. (Tenmat does not supply a DPC).



Use stainless steel screws, with a maximum head diameter of 12.5mm and with a length suitable for the cavity barrier and the substrate. Ensure that the screw head fully penetrates the face of the cavity barrier, the screw head should sit approx. 5mm-10mm behind the face of the cavity barrier. Care should be taken not to compress the surface more than 10mm as this may effect the performance of the cavity barrier.

Position the first screw fixing through the centre line of the face of the cavity barrier at a maximum 250mm from one end, continue to face fix through at maximum 500mm centres (2 screws per linear meter), ensuring that the final fixing is a maximum 250mm from the end of the cavity barrier.

This will ensure that face fixings are positioned at 500mm centres across the continuous run of cavity barrier.

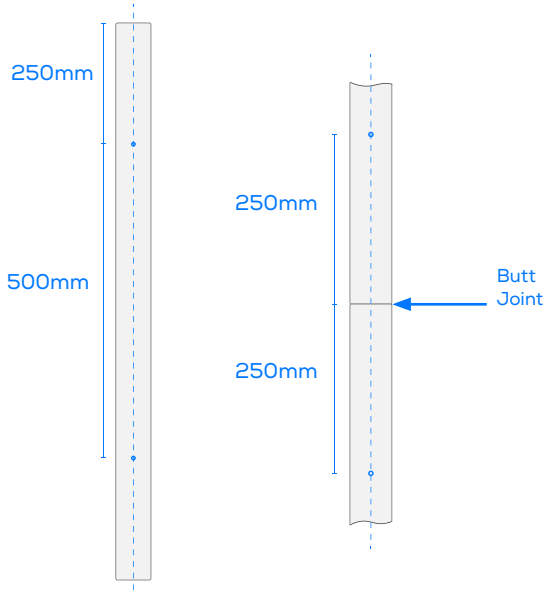
Ensure that all joints and intersections are tightly butted with no gaps.

Where sections of cavity barrier are less than 1 linear metre in length, ensure that face fixings are positioned at a maximum 250mm from each end. For cut sections of cavity barrier less than or equal to 500mm in length minimum one fixing must be installed. If desired, an additional fixing may be installed.

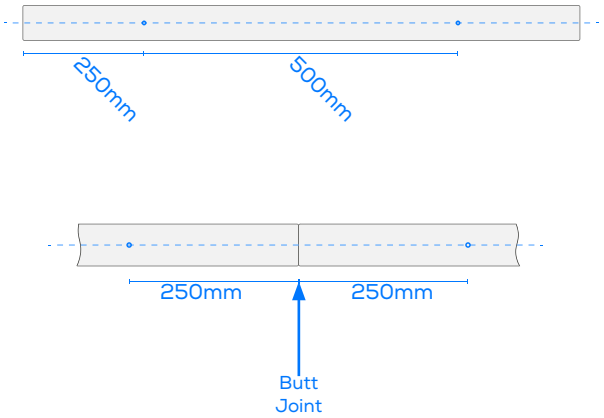
In Timber Frame constructions, only vertical orientation is allowed and a minimum 38mm thick timber stud must be in place directly behind the OSB sheathing board following the line of the cavity barrier.

Option 1 (continued)

Vertical Install



Horizontal Install



Option 2

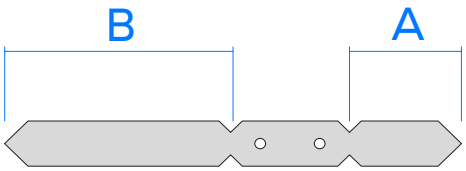
NVFB-Vertical and Horizontal
Product widths from 81mm up to 605mm wide, fixed using 2 MP brackets.

Note:
If cutting the NVFB to size from a full slab for the above sizes, care should be taken to ensure cut dimension allows for the minimum compression to be achieved and that the cut edges are square. To ensure a square cut, the use of a cutting station/bench for accurate cutting could be considered.

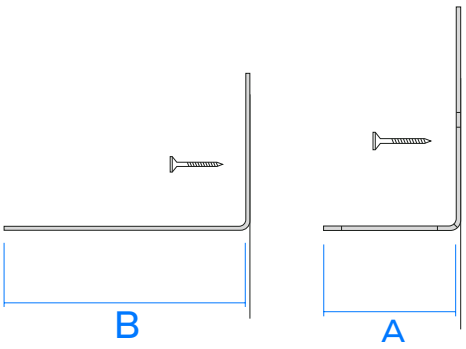
If cutting to width from 1000mm x 1200mm full slabs, ensure the product is cut from the 1200mm dimension to ensure correct bracket/fixing support is provided. After cutting, all other instructions and fixings details below should be followed.

A DPC should be applied when using the NVFB behind a masonry outer substrate (this follows NHBC guidance).

Where an NVFB is installed behind a DPC, face fixing of the NVFB must be completed prior to installation of the DPC, do not penetrate the DPC with fixings. (Tenmat does not supply a DPC).



MP brackets are supplied with 2 fixing spikes, one spike is 65mm long (A), the other is 160mm long (B), with a central section for securing the bracket to the substrate. The level of compression required must be considered (see fire test evidence tables), care should be taken to ensure that the end of the bracket will not come into contact with the outer substrate when compression is applied to the NVFB.



For cavity barriers 81mm-165mm wide (across cavity) use 2 MP brackets and the 65mm long spike (A).

For cavity barriers 166mm-605mm wide (across cavity) use 2 MP brackets and the 160mm long spike (B).

Ensure the bracket does not pierce through the face of the cavity barrier and does not impede the minimum compression required being achieved.

Note: If additional support is needed prior to the installation of the outer substrate, then for sizes up to 165mm, the 160mm long spike (B) can be used by trimming down or alternatively for sizes >165mm additional brackets can be used.

The bracket must penetrate to a depth of at least 26% of the cavity barrier width.

To secure the bracket use minimum 1 No. 5mm Ø stainless steel screws with a length and type suitable for the substrate. Ensure that the screw head sits as flush as possible with the bracket so that the NVFB sits tight against the substrate leaving no gaps.

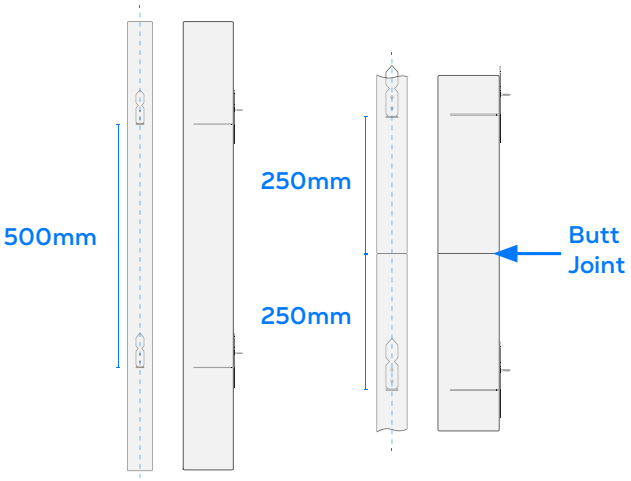
If using only one fixing per bracket it must be ensured that the bracket is not at risk of rotating (e.g. for horizontally fixed brackets) and the substrate can accommodate one fixing, if in doubt two fixings should be used.

Option 2 (continued)

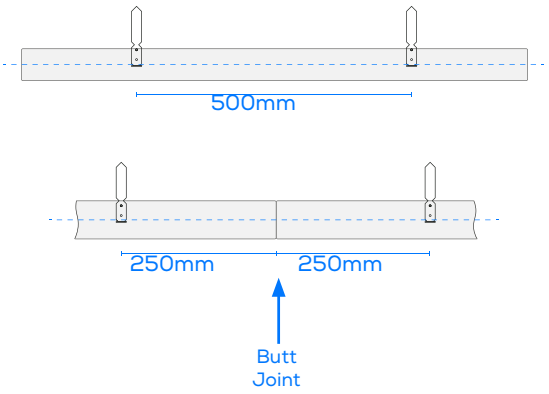
Fix 2 number MP brackets, per linear metre, to the substrate at maximum 250mm from the end of the cavity barrier, with a maximum spacing between brackets of 500mm. Where sections of cavity barrier are less than 1 linear metre in length, ensure that MP brackets are positioned at a maximum 250mm from each end. Where the cavity barrier is less than or equal to 500mm in length 1 MP bracket must be used. If required, an additional bracket can be used.

Ensure that all joints and intersections are tightly butted with no gaps.

Vertical Install



Horizontal Install

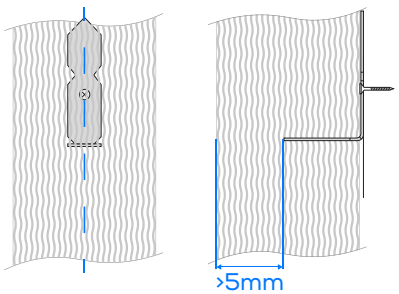


Push the cavity barrier onto the bracket spike, the brackets should impale the NVFB to approximately mid barrier depth and must not protrude through the face of the cavity barrier, remembering to allow for the final compression against the outer substrate also. The cavity barrier should be pushed fully onto the bracket spike and sit flush with the substrate, at the rear of the cavity barrier, ensuring that there are no gaps behind the cavity barrier.

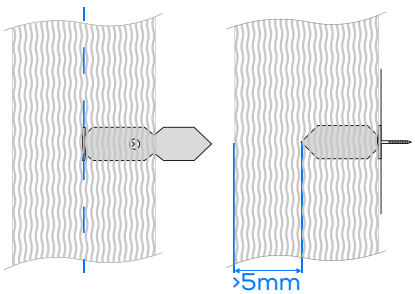
In Timber Frame constructions, only vertical orientation is allowed and a minimum 38mm thick timber stud must be in place directly behind the OSB sheathing board following the line of the cavity barrier.

Note: For vertical install with vertical brackets, pre-slit the NVFB to the depth and width of the bracket to prevent damage to the fibres. Impale the bracket into the NVFB ensuring no movement.

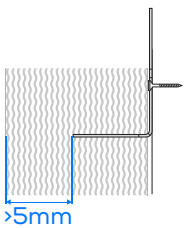
Vertical Install (vertical brackets)



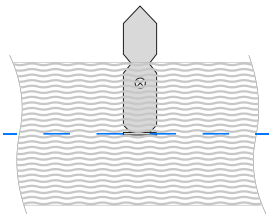
Vertical Install (horizontal brackets)

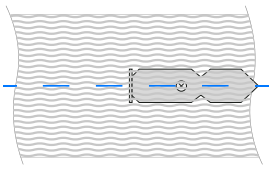


Horizontal Install (vertical brackets)



Horizontal Install (horizontal brackets)





Option 3

NVFB - Horizontal only

NVFB installed in conjunction with masonry support brackets, use Option 2 for NVFB bracket fixing details.

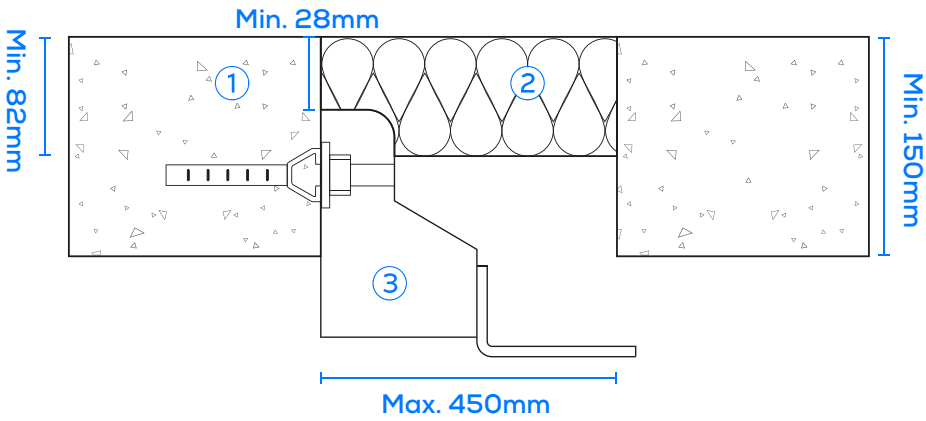
Any cutting of the NVFB on site to suit tolerances, shall be done accurately and kept to a minimum. Ensure that the minimum 3 or 5mm extra for the compression is maintained. (See fire test evidence table for more info on tested applications and compression requirements.)

NVFB Plain or Foil Faced (FF)

Ensure there is a minimum of 28mm of uncut NVFB and 28mm of floor slab from the top of the masonry support bracket. Min. 5mm compression is required. (NB. take account of potential movement tolerance of masonry support bracket to ensure min. 28mm is maintained.)

Diagram of Typical Detail for NVFB Plain or Foil Faced (FF)

1. 150mm thick lightweight concrete floor
2. Tenmat NVFB
3. Masonry Support Bracket

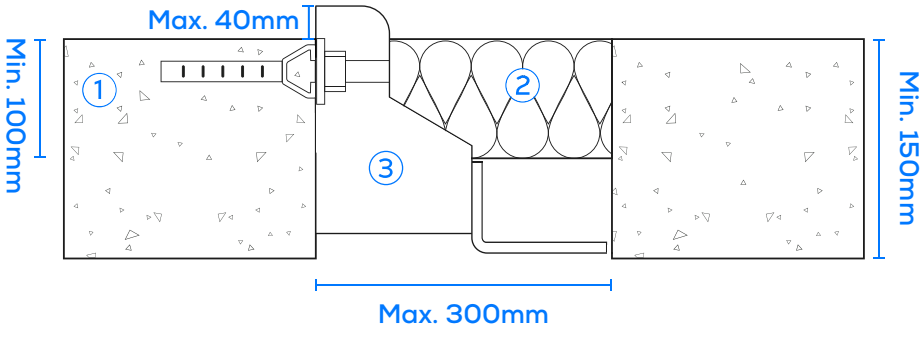


NVFB Foil Faced (FF) only

When using NVFB with Foil Facing both sides. The masonry support bracket can be recessed, flush or protruding by max. 40mm above the NVFB. Min. 3mm compression is required. (NB. take account of potential movement tolerance of masonry support bracket to ensure max. 40mm or less is maintained)

Diagram of Typical Detail for NVFB Foil Faced (FF) only

1. 150mm thick lightweight concrete floor
2. Tenmat NVFB (FF)
3. Masonry Support Bracket



For masonry support brackets recessed below the top of the NVFB

Mark where the brackets meet the NVFB and cut a notch into the NVFB. Making the notch as small as is practicable.

Compress the NVFB and push into the cavity, ensuring the top of the NVFB sits flush with the top surface of the floor slab.

When extending the length of the NVFB, ensure the adjacent lengths have their joints tightly abutted together and are aligned flush with each other to give the appearance of a continuous strip with no gaps.

For masonry support brackets flush with, or protruding above the top of the NVFB

The NVFB must be cut to size to fit tightly within or abutted up to the masonry support brackets ensuring no gaps.

Limitations

To ensure compliance to the relevant test evidence detailed within this Data Sheet, the product must be installed as per the fitting instructions by competent installers. The product must only be used in vertical or horizontal orientations.

Maintenance

- No active maintenance required.
- Where alterations are made around the product it should be checked visually to ensure that the product is still installed as per the approved original design and fitting instructions at the time of original installation.
- Where product(s) is damaged or tampered, new product should be installed in line with installation guidance.

Storage Conditions

- See Safety Data Sheet

Tools /Materials Required

- Sharp Knife
- Measuring Tape
- Appropriate drill
- Stainless steel fixings

PPE Required

- Hand protection
- Eye protection
- Follow project site requirements

Disposal

- Foil facing can be cleaned and recycled.
- Stone wool insulation is non hazardous waste and is categorised as “waste accepted at landfill for nonhazardous waste” and local regulations should be followed.

Please see Safety Data Sheet for more information.

NVFB

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Doc Reference: TDS-34		
Revision: 3	Date: 27/03/2026	
PB: CM	CB: CT	AB: DR