Envirograf®
Protecting the irreplaceable

CAVITY BARRIERS AND TRAYS

Innovators - Developers - Manufacturers
Passive Fire Prevention Products

CAVITY BARRIERS AND TRAYS

FOR ALL TYPES OF CLADDING SYSTEMS

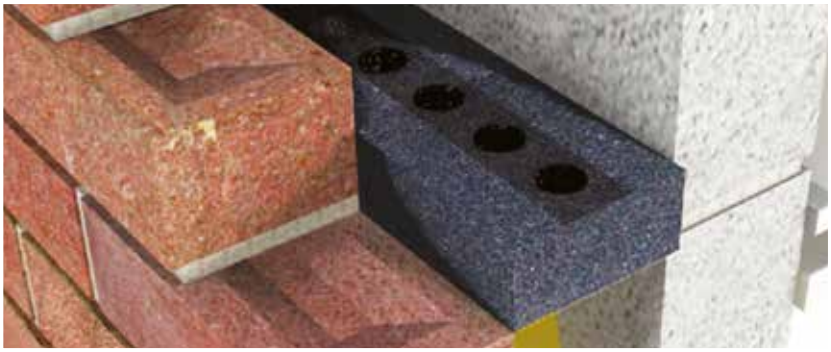
PROVIDING UP TO 240 MINUTES FIRE PROTECTION











Fully satisfying the requirements stated in Document B of Building Regulations

ISO 9001 QUALITY ASSURANCE

FPA Fire Protection Association

The British Fire Consortium

Affiliated to IFPO Entit ad Defendere

Registered Member: ECA

ELECSA Part P Approved Contractor

ITeC The Catalonia Institute of Construction Technology

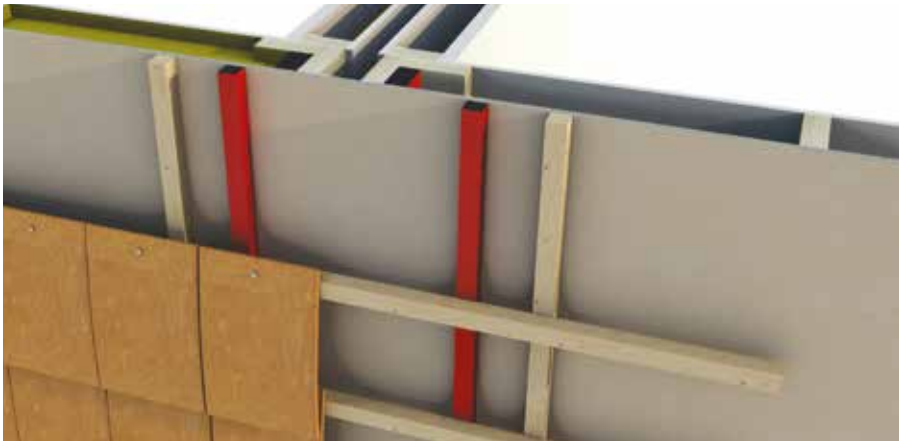
T +44 (0) 1304 842 555 F +44 (0) 1304 842 666 **sales@envirograf.com | www.envirograf.com**

SPECIFICATION PAGE

Vertical Cavity Barriers

VERTICAL CAVITY BARRIERS ARE IMPORTANT FOR PROVIDING A VERTICAL SEPARATION INSIDE THE CAVITY IN A FIRE SITUATION.

THESE BARRIERS DO NOT HAVE ANY VENTILATION REQUIREMENTS

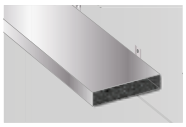


Fire Rating

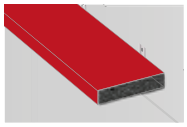
up to 120 minutes



WBS Cavity Barrier
66 min. integrity,
50 min. insulation



RSF Cavity Barrier
68 min. integrity,
N/A



RSM Cavity Barrier
68 min. integrity,
N/A

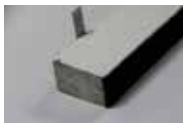


FB/TS Cavity Barrier
66 min. integrity,
50 min. insulation

up to 240 minutes



WB Cavity Barrier
132 min. integrity,
103 min. insulation



RS/FFCB Cavity Barrier
238 min. integrity,
153 min. insulation

Horizontal Cavity Barriers and Trays

HORIZONTAL CAVITY BARRIERS ARE IMPORTANT FOR PROVIDING A SEPARATION BETWEEN FLOORS INSIDE THE CAVITY IN A FIRE SITUATION.

THESE BARRIERS NORMALLY HAVE A VENTILATION AREA IN THE FORM OF A GAP OR VENTILATION HOLES, WHICH ALLOWS THE REQUIRED AIR FLOW.



Fire Rating

up to 120 minutes



WBS Cavity Barrier
66 min. integrity,
50 min. insulation



VWBS Cavity Barrier
66 min. integrity,
50 min. insulation



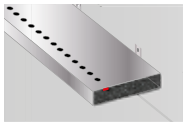
RS/VWB Cavity Barrier
68 min. integrity,
N/A



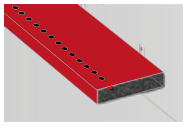
RS/WB/CV Cavity Barrier
62 min. integrity,
N/A



CV Cavity Barrier
91 min. integrity,
75 min. insulation



RSF/A Cavity Barrier
85 min. integrity,
N/A

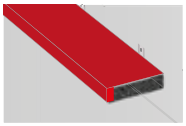


RSM/A Cavity Barrier
85 min. integrity,
N/A

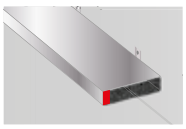
up to 240 minutes



WB Cavity Barrier
132 min. integrity,
23 min. insulation



RSM/I Cavity Barrier
170 min. integrity,
103 min. insulation



RSF/I Cavity Barrier
170 min. integrity,
103 min. insulation



RS/FFCB Cavity Barrier
238 min. integrity,
153 min. insulation



SCT Cavity Tray
Non-Combustible
A2-s1,d0



The importance of correct fire protection in cavities between cladding

Standards and approvals

According to Document B of the UK Building Regulations fire barriers must be installed in cavity areas that are vulnerable to the spread of fire. Using the correct passive fire cavity protection system within a building is crucial, in the event of a fire, intumescent fire barriers activate and seal holes, penetrations and cavities, preventing the spread of fire and smoke, thereby fulfilling UK regulations.

However, other regulations may also have to be satisfied concerning cavity barrier specifications. For example, Document C may require the cavity area to allow a free flow of air reducing condensation whilst also offering fire protection. Documents L1B and L2B may require certain cavity areas to offer thermal and fire protection simultaneously. Envirograf® have now designed a series of flexible fire protection cavity barriers that fully satisfies all of these cavity protection requirements.

Building Regulations
Section 6 of Document B of the Building Regulations states:
6.1 Concealed spaces or cavities in the construction of a building provide a ready route for smoke and flame spread e.g. in walls, floors, ceilings and roofs. As any spread is concealed, it presents a greater danger than would a more obvious weakness in the fabric of the building.

Standards and Regulations also stipulate that two storey buildings and above require cavity barriers to stop fire from spreading through walls, floors and cavities.

The Envirograf® Cavity Barrier range fully satisfies the requirements stated in Document B of the Building Regulations.

The Envirograf® Cavity Barrier range has been tested according to the principles of EN1363-1 2012 achieving up to 238 minutes integrity.

Advantages of Envirograf® Cavity Barriers

- Fully flexible
- Easy to install
- Allows free air movement
- up to 240 minutes fire protection
- Maintenance free
- Moisture resistant
- Thermal barrier protection



Examples of cladding fires in high rise buildings

Beijing Hotel on Fire

In 2009 a Hotel in Beijing, which was a part of the CCTV Television Station complex caught fire during the Lantern Festival. Fireworks were set off from surrounding rooftops without permits, causing the building to be set on fire. Because the building was still under construction, no fireproofing was installed, which resulted in fire spreading quickly through the cavity, with insulation material fuelling the flames.



Envirograf® Products help to protect against this

Most comprehensive range of cavity barriers and trays on the market



FLEXIBLE CAVITY BARRIERS & TRAYS

Flexible, moisture resistant barriers and trays for use in brick wall cavities.

Pages 8-17

THIS RANGE INCLUDES:



SCT Cavity Tray
Non-combustible cavity tray



WB Cavity Barrier
Non-ventilated systems for brick wall cavities



VWB Cavity Barrier
Ventilated systems for brick wall cavities



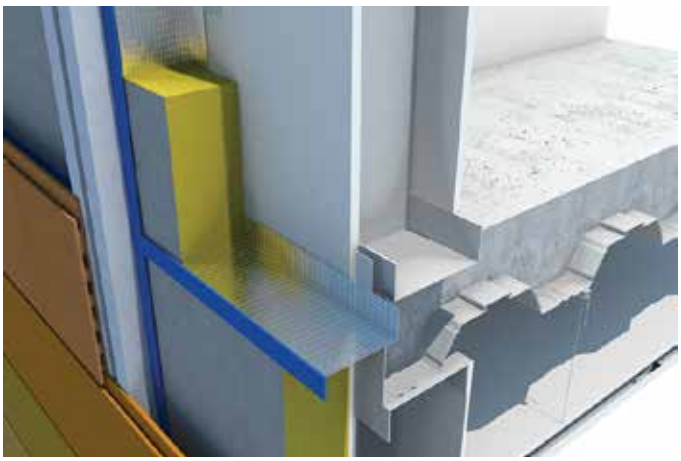
WBS Cavity Barrier
Non-ventilated sponge systems for brick wall cavities



VWBS Cavity Barrier
Ventilated sponge systems for brick wall cavities



Intumescent-coated fireproof sponge
Ideal for use under roofing sheets



RAINSCREEN CAVITY BARRIERS

Rainscreen cavity barriers with washer or bracket fixings for facade cladding systems.

Pages 18-31

THIS RANGE INCLUDES:



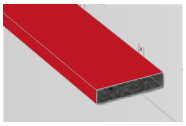
RS/WB Cavity Barrier
Non-ventilated system for rainscreen facades



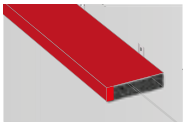
RS/VWB Cavity Barrier
Ventilated system with ventilation holes



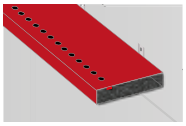
RS/WB/CV Cavity Barrier
Ventilated system with intumescent strip



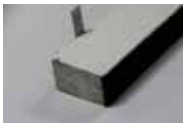
RSM Cavity Barrier
Non-ventilated sponge system for rainscreen facades



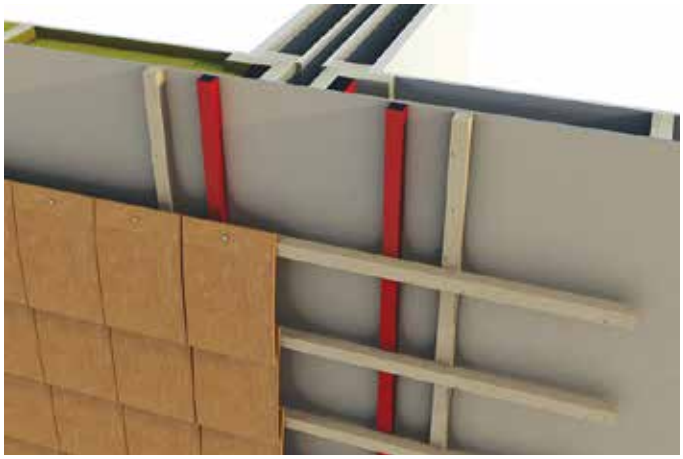
RSM/I Cavity Barrier
Ventilated sponge system with Intumescent strip



RSM Cavity Barrier
Ventilated sponge system with ventilation holes



RS/FFCB Cavity Barrier
Ventilated solution with intumescent strip



TIMBER FRAME CAVITY BARRIERS

Cavity barriers designed for timber frames and party walls or floors.

Pages 32-45

THIS RANGE INCLUDES:



CV Strip Cavity Barrier
Intumescent strip cavity barrier, providing ventilation in a cavity



FB/TS Cavity Barrier
Sponge cavity barrier for timber frame properties



THERMAL CAVITY BARRIERS

Thermal cavity barrier ideal for cavities around door and window apertures.

Pages 46-47

THIS RANGE INCLUDES:



TCB Cavity Barrier
Thermal cavity barrier for around windows and doors



VWBG Cavity Barrier
Ventilated cavity barrier for brick wall cavities

SEALED CAVITY TRAY - NON-COMBUSTIBLE

Flexible, moisture resistant non-combustible cavity trays for use in brick wall cavities.



This sealed cavity tray (SCT) can be bent to suit whatever shape that is required. It can also be bedded into the block or brick work during construction, it will need to be bedded into the wall by 40mm on both the inner and outer walls.

The SCT is flexible and can be manipulated to suit any shape and is also completely waterproof.

We can supply washers and screws if you wish to screw it to the inner wall.

The SCT can be made any width to suit the width of the cavity.

Can supply with ventilation/weep holes that will seal up in a fire. These holes can be made to your measurements or at 10mm holes 50mm apart.

All SCT's should be overlapped by 20 to 30mm.

PERFORMANCE

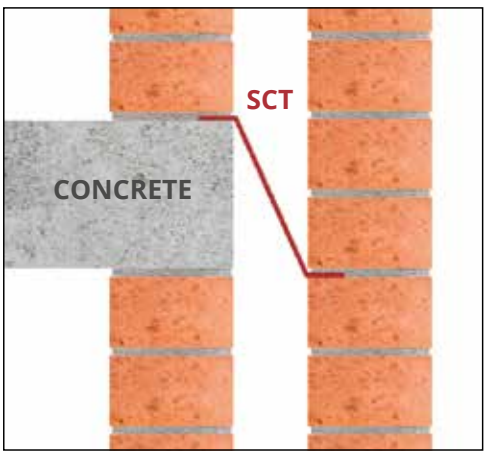
Tested by BTC meeting EN13051-1 (2018) fire classification of A2-s1, d0

ORDER REFERENCE

SCT 240	240mm wide
SCT 350	350mm wide
SCT 450	450mm wide

All supplied 1 metre long, other lengths available on request.

Add **/J** for an SCT that can be bedded into the wall.
Add **/S** for washers and screws.
Add **/C** for corner units.



The Building Test Centre
Fire Acoustics Structures

The Building Test Centre
British Gypsum
East Leake
Loughborough
Leics. LE12 6NP
Tel: (0115) 945 1564
Email: btc.testing@saint-gobain.com

CLASSIFICATION

This classification has been carried out in accordance with Clause 11 of BS EN 13501-1:2018.

For the products tested the reaction to fire classification achieved is A2.

The additional classification in relation to smoke production is s1

The additional classification in relation to flaming droplets/particles is d0

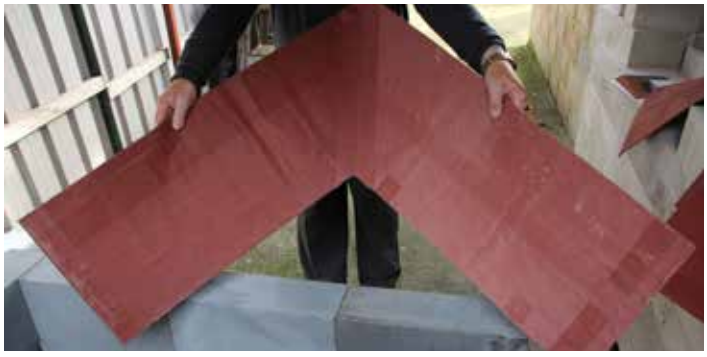
The format of the reaction to fire classification for construction products excluding floorings is:

Fire Behaviour		Smoke Production			Flaming Droplets	
A2	-	s	1	,	d	0

i.e. : **A2-s1, d0**

SEALED CAVITY TRAY CORNERS

We have designed a specific corner piece that can be used on return corners of buildings. This has been designed so it provides a secure fit around the corner of a building and is still flexible and also completely waterproof. This corner piece can be bedded into the block or brick work during construction or we can supply washers and screws if you wish to screw it to the inner wall/timber. The corner piece is supplied two meters long on each side but it can be made any width or size. The SCT can be cut and rejoined using our red joining tape.





CORNER UNIT SPECIALLY DESIGNED FOR RETURN CORNERS ON BUILDINGS



CORNER UNIT CAN BE BED INTO BRICK/BLOCK WORK OR FIXED WITH WASHERS & SCREWS

SEALED CAVITY TRAY - NON-COMBUSTIBLE

Flexible, moisture resistant cavity trays for use in brick wall cavities.



FLEXIBLE SEALED CAVITY TRAY CAN BE BENT AND BEDDED INTO BLOCK OR BRICK WORK DURING CONSTRUCTION. TO ORDER PLEASE ADD /J TO THE REFERENCE NUMBER



CAN BE SUPPLIED WITH WASHERS AND SCREWS IF YOU WISH TO SCREW THE SEALED CAVITY TRAY TO THE INNER WALL. TO ORDER PLEASE ADD /S TO THE REFERENCE NUMBER

CASE STUDY - WATERMARK, HACKNEY, LONDON







The 8-storey canalside building provides over 35,000 sq ft of workspaces and 33 residential units comprised of one, two or three bedroom apartments above. The site is situated by Regent's Canal and close to Broadway Market. To prevent spread of fire, Envirograf® Sealed Cavity Tray was installed.





WB RANGE

Flexible, moisture resistant barriers and trays for use in brick wall cavities.



A flexible foiled barrier (WB & VWB) designed to fix across into inner and outer course of brick to block or block to block, held in the mortar joint.

A barrier for use horizontally, it is a robust, reinforced foil clad barrier that will not transfer moisture. With intumescent coated membrane on a flexible wire mesh, can be bent if required.

A powerful intumescent insulating material that will expand in a fire forming a complete barrier from fire and smoke. You can install insulating materials under or on top of the barrier.

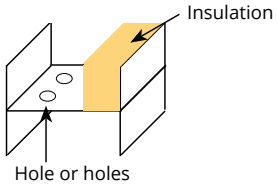
VWB Cavity Barrier

This is the same barrier but with ventilation and moisture holes which house a water resistant, rubberised intumescent material which expands in a fire, sealing off all holes.

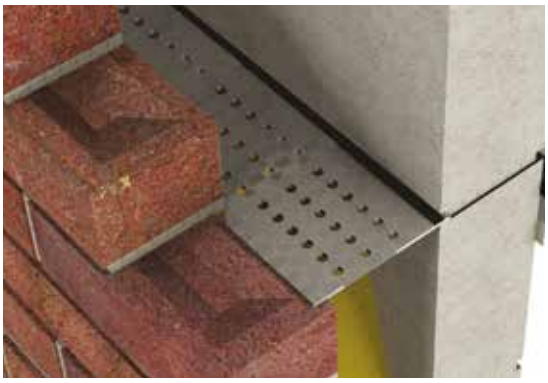
VWB can have 1,2, or 3 rows of holes according to the width of the barrier.

One hole	12mm dia	50mm apart	Pattern A
Two holes	12mm dia	50mm apart	Pattern B
Three holes	12mm dia	50mm apart	Pattern C

Note: If you have insulation material under or over the barrier you must state how near you want hole to front edge.



All ventilated barriers have an additional intumescent strip that will seal holes in the event of a fire



Ventilated VWB Barrier



Ventilated VWB/W Barrier with washer fixings



WB Barrier used around windows



FIRE TEST PERFORMANCE

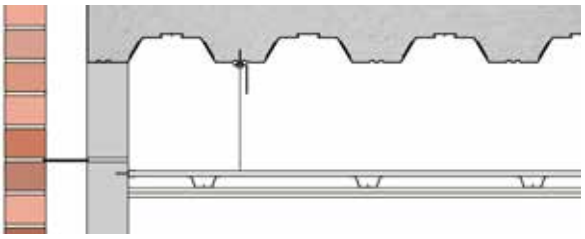
BS EN 1363-1 1999	132 mins integrity 23 mins insulation

Benefits

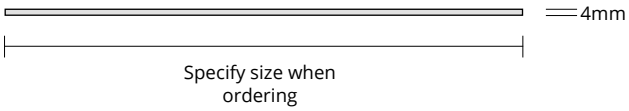
High tensile foil protection
Ensures optimum durability and moisture protection.

Flexible mesh structure
Offers enhanced robust strength and flexibility to the barrier section.

Powerful intumescent seal
In the event of a fire the cavity barrier seal will expand filling the cavity stopping the spread of fire and smoke.



Dimensions



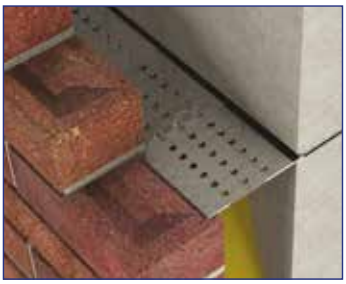
Ordering References

Cavity Wall Barriers — Vertical & Horizontal

Non-ventilated
1 or 2 metre length
WB80
WB120
WB150
WB200
WB250



Ventilated
1 or 2 metre length
VWB80
VWB120
VWB150
VWB200
VWB250



WB & VWB are made exact to the width flat. Should you need fixing to face of timber or brick etc. we can make them with a 30mm upstand or brackets:

Cavity Wall Barriers — Vertical & Horizontal — with 30mm upstand and washer fixings (Only available up to 250mm wide)

Non-ventilated
1 or 2 metre length
WB80/W
WB120/W
WB150/W
WB200/W
WB250/W


FIXING WASHERS



Ventilated
1 or 2 metre length
VWB80/W
VWB120/W
VWB150/W
VWB200/W
VWB250/W


FIXING WASHERS



FLEXIBLE CAVITY BARRIER RANGE

Fitting around aluminium or steel supports

If you have aluminium or steel supports going vertically up the building and you are fitting either WB, VWB, RSWB or RSVWB barriers then please follow the below instructions on how to fit around the aluminium or steel supports. When sealing the barrier up, you must use Envirograf® silver foil.

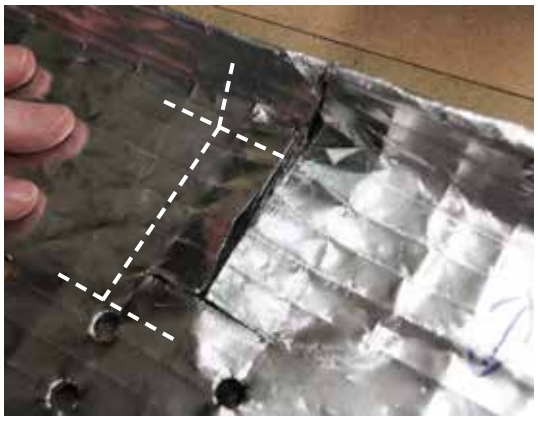


THE CORRECT WAY OF FIXING

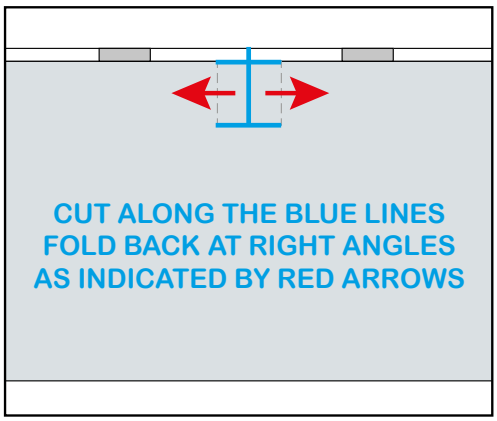


THIS SHOULD NOT BE DONE

FLEXIBLE CAVITY BARRIER RANGE



1) Cut down first and then cut across as per diagram and image





2) Fold back the two flaps



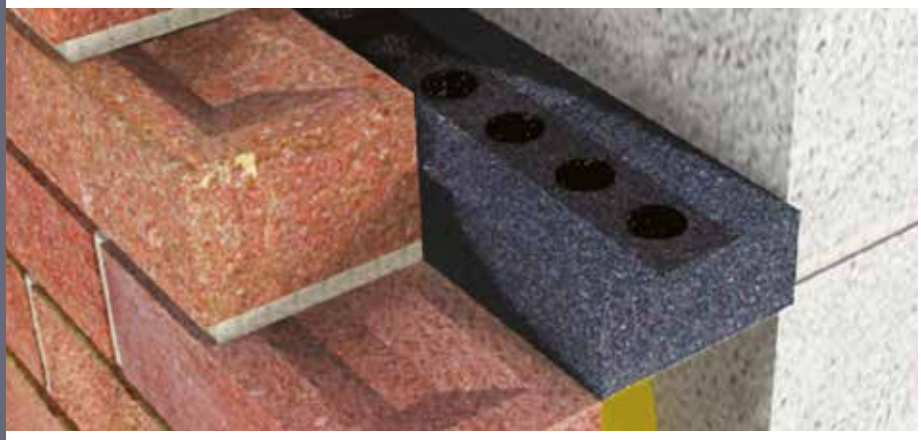
3) Open and wrap around aluminium or steel supports



4) Now use Envirograf® silver foil to it seal up and apply Envirograf® AM mastic

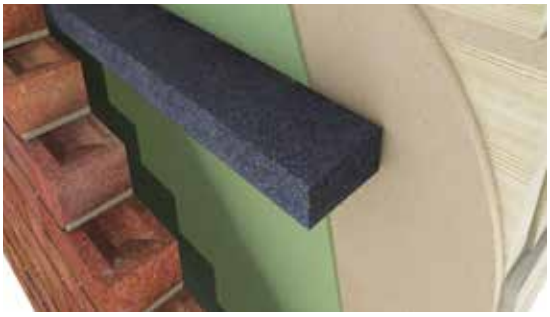
WBS RANGE

Flexible, moisture resistant barriers and trays for use in brick wall cavities





Non-ventilated WBS



Non-ventilated option - block and timber cavity

Design details
The WBS Cavity Barrier is a flexible fireproof sponge which is fixed in a horizontal or vertical position in a brick/block cavity. The WBS has unique self spring properties and is fixed into the cavity by simply pressing the seal into place. The barrier must always be made 10mm wider than the cavity.

Benefits
- Fireproof sponge
- Ensures optimum durability and moisture protection as well as offering continued thermal insulation within the cavity section.
- Powerful intumescent seal**.**
- The VWBS has intumescent fitted, which in the event of a fire will expand, filling the vertical holes stopping the spread of fire and smoke.
- VWBS is for horizontal use only.

Dimensions



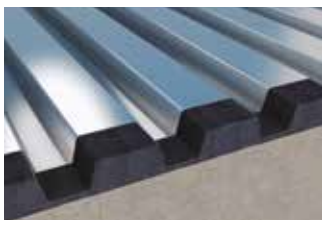
INTUMESCENT-COATED FIREPROOF SPONGE

Sheets of fire resistant sponge ideal for use under roofing sheets

- Provides up to 138 minutes fire protection
- Can be cut to various profiles and used under roofing sheets as a fire break
- Ideal for use between walls and floors, or packed around small openings as a penetration seal
- Can be faced with Cement Filler (Product 63) to provide an even more effective seal.

FIRE TEST PERFORMANCE	
BS 476: Part 22 1987	up to 2 hours integrity
EN 1366-4 (2006) +A1: (2016)	up to 121 mins integrity and 86 mins insulation











FIRE TEST PERFORMANCE

BS476 Part 20 : 1987	66 mins integrity 50 mins insulation

Denne

Ordering References

Ventilated fireproof sponge for cavities

Cavity width allow when ordering 10mm wider for compression in cavity.

You can have one or two ventilation holes : **A** 1 hole **B** 2 holes



A 1 hole



B 2 holes

Ventilated

	Cavity Width	Actual Width of sponge	Sponge Thickness	
VWBS80	80mm	90mm	40mm	Hole type A
VWBS135	135mm	145mm	40mm	Hole type A or B
VWBS165	165mm	175mm	40mm	Hole type A or B
VWBS210	210mm	220mm	40mm	Hole type A or B
VWBS265	265mm	275mm	40mm	Hole type A or B

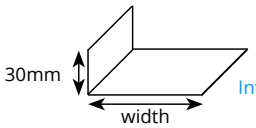


Non-Ventilated

	Cavity Width	Actual Width of sponge	Sponge Thickness
WBS80	80mm	90mm	40mm
WBS135	135mm	145mm	40mm
WBS165	165mm	175mm	40mm
WBS210	210mm	220mm	40mm
WBS265	265mm	275mm	40mm

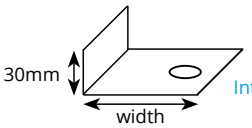


Cavity Barriers with rodent protection



15mm thick Intumescent with mesh

Non-Ventilated	**1 metre length** Barrier Width
WBM50	50mm
WBM80	80mm
WBM120	120mm



15mm thick Intumescent with mesh

Ventilated	**1 metre length** Barrier Width
VWBM50	50mm
VWBM80	80mm
VWBM120	120mm

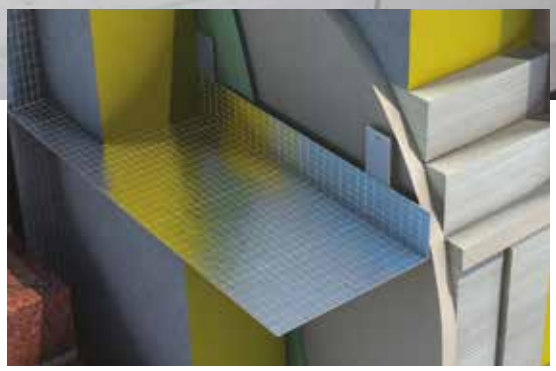
RS/WB RANGE

Barriers designed especially for rainscreen façade systems



Rainscreen Barrier

This barrier comes in 3 types, giving complete fire and smoke sealing. A lightweight barrier to lay over and under all types of insulation materials. They are made of the same materials as WB and VWB Range.



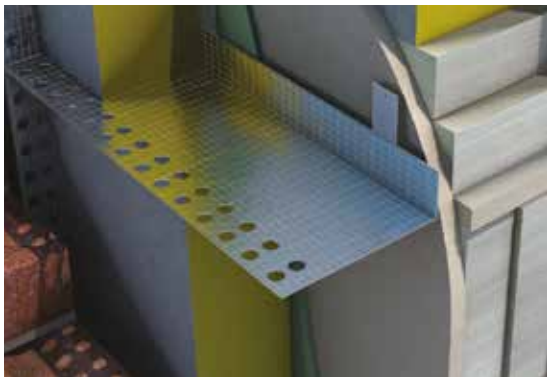
RS/WB non-ventilated barrier with brackets

RS/WB/W | RS/VWB/W | RS/WB/CV/W

Are made to suit a cavity up to 250mm. They have a 30mm up stand on the back edge with metal washers for screw or nail fixing to concrete, brick, block, cement board, etc.

The barrier contains intumescent-coated cloth on a galvanised mesh 1.5mm x 1mm hole size. Then covered in reinforced craft paper which is impregnated with a Envirograf® Fireproof Adhesive. Lightweight, clean, easy to handle. Can be bent to shape or bent over without harming the integrity. Ventilation holes have intumescent strip to seal in a fire.

RS/WB/W Cavity also stops smoke penetration.



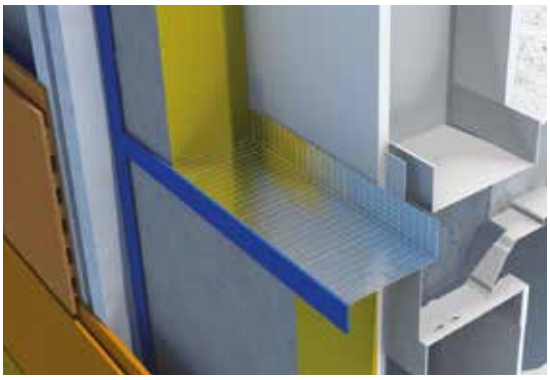
RS/VWB ventilated barrier with brackets

RS/WB/B | RS/VWB/B | RS/WB/CV/B

This is a similar barrier to RS/WB/W range, but can be made up to 400mm wide.

This version has the same 30mm up stand at the back and has supporting L-shape metals to support the barrier. These brackets have holes for screw or nail fixing.

- The RS Range can be fitted vertically or horizontally
- Can be placed over insulation material or have insulation material placed on top in horizontal position. The vertical barrier can be placed between the insulation material.



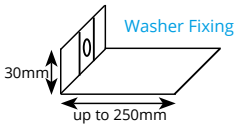
RS/WB/CV barrier with brackets and CV strip



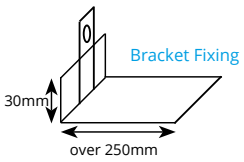
FIRE TEST PERFORMANCE	
EN 1363-1 2012	68 mins integrity insulation - N/A
BS EN 1363-1 : 1999	62 mins integrity insulation - N/A

Fixing instructions
Depending on the width of the barrier, we supply them with different fixings:

Barriers up to 250mm wide
These are supplied with 30mm up stand at the back, which include 3 fixing washers.



Barriers over 250mm wide
These are supplied with 30mm up stand at the back, which include 3 fixing brackets.



If you require, we can also supply smaller size barriers with fixing brackets.

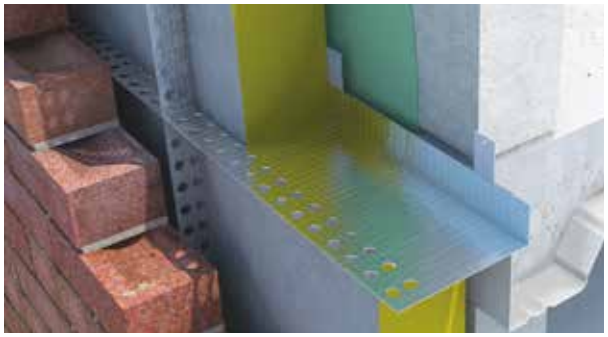


Corner section fixing by overlapping

Ventilated Rainscreen Barriers

- These barriers can be made with or without ventilation and drainage holes.
- Can be used both vertically and horizontally.
- Can be placed over insulation material in horizontal position or next to it in vertical position, and can have insulation material on top of and next to the barrier.

All ventilated barriers have an additional intumescent strip that will seal holes in the event of a fire



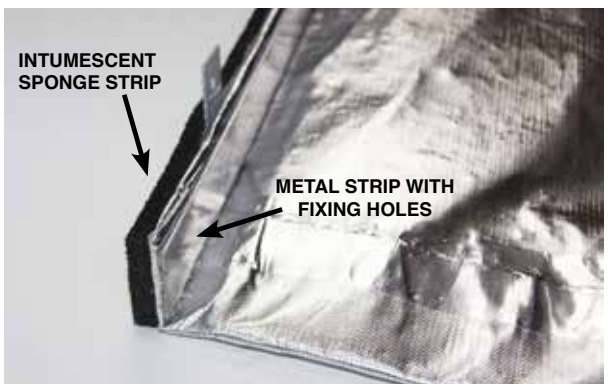
Rainscreen Barriers with added moisture penetration protection

In some cases there may be a requirement for a perfect seal along the back fixing edge to seal and stop moisture penetrating down the back of the seal. We can supply the RS/WB range with a backing to stop the moisture penetration.

The barrier has a strip of intumescent sponge along the back of the barrier that stops moisture from penetrating the seal. Also, there is a sturdy metal strip to ensure the barrier has a perfect seal. The metal strip has fixing holes to help adhere the barrier to the substrate.

Can be added to all Rainscreen Barriers (RS/WB) including with washers or brackets.

Add **/MR** to reference when ordering.





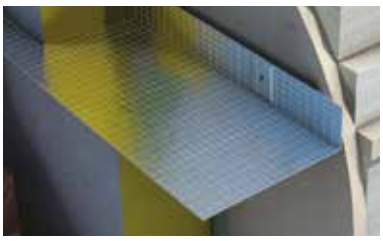
Ordering References

Rainscreen Barriers

WASHERS

1m length, 2m length

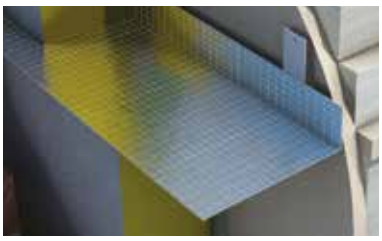
RS/WB/W80
RS/WB/W120
RS/WB/W150
RS/WB/W200
RS/WB/W250



BRACKETS

1m length, 2m length

RS/WB/B250
RS/WB/B300
RS/WB/B350

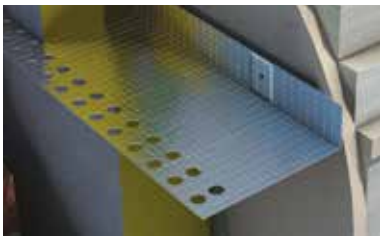


Ventilated Rainscreen Barriers

WASHERS

1m length, 2m length

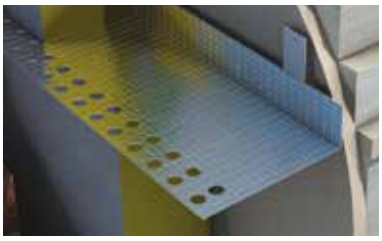
RS/VWB/W150
RS/VWB/W200
RS/VWB/W250



BRACKETS

1m length, 2m length

RS/VWB/B300
RS/VWB/B350
RS/VWB/B400

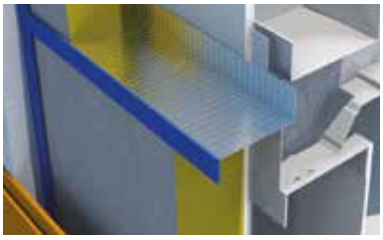


Rainscreen Barriers with CV Strip

BRACKETS

1m length

RS/WB/CV/B150
RS/WB/CV/B200
RS/WB/CV/B250
RS/WB/CV/B300
RS/WB/CV/B350





Holloway Road

The development includes mixed tenure residential units of eight affordable rent, two affordable shared ownership and twenty-four private sale, totalling thirtyfour units.



Cavity Barriers prevents hidden spread of fire



Simple installation process makes them a popular solution

RSM RANGE

Barriers designed especially for rainscreen façade systems



Can be use as horizontal or vertical barrier

This range uses fireproof sponge instead of mineral fibre, which offers many advantages:

- barrier is much thinner and offers better fire rating
- easy to fix - no masks needed (non-fibrous)
- fixing brackets already in place - fix with screws, nails or spit nails

Specification

Thickness - 40mm to 50mm
(depending on fire rating required)
Width - Made to any width required
Length - 1000mm
Max ventilation gap - 50mm with RSM/I Range.
State gap size needed.

Cover made from a strong fireproof material which is completely water resistant, housing our impregnated intumescent sponge.

Installation

This barrier comes supplied with 4 fixing brackets which can be simply screwed, nailed or spit nailed to the internal wall (pre-drilled holes are suitable for up to 12mm size screws.)

Non-fibrous products used in this barrier make it even easier to install.
The barrier can be easily cut with a sharp knife.
If, during installation, you find wall imperfections, these can then be filled with Envirograf® Intumescent Mastic (Product 58.)

The new RSM range has been especially designed to offer excellent passive fire protection for rainscreen and other types of cladding.



VENTILATION HOLES

PATTERN A	1 row of holes 12mm diam. 50mm centres
PATTERN B	2 rows of holes 12mm diam. 50mm centres

FIRE TEST PERFORMANCE

EN 1363-1 2012 (RSM/I)	170 mins integrity 103 mins insulation
EN 1363-1 2012	68 mins integrity insulation - N/A









RSM Barrier is flexible enough to be used on curved cavities



RSM Barrier can have thermal insulation material both under and on top of the barrier, but ventilation holes must not be covered and the barrier must be fixed back to the substrate.

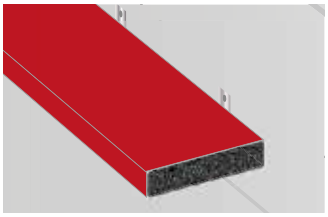
All ventilated barriers have an additional intumescent strip that will seal holes in the event of a fire

Ordering References

RSM Range vertical or horizontal use with a robust material covering, completely water resistant.

RSM Non-ventilated **All barriers 1 Metre Long**

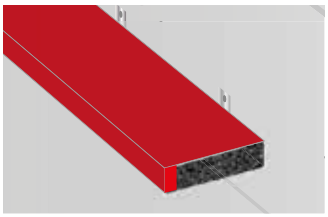
	Width	30/60 minutes / Thickness	120 minutes / Thickness
RSM150	150mm	40mm	50mm
RSM180	180mm	40mm	50mm
RSM200	200mm	40mm	50mm
RSM250	250mm	40mm	50mm
RSM300	300mm	40mm	50mm



RSM/I With intumescent in the front face which expands up 50mm so a ventilation gap from 20mm to 50mm can be left.

RSM/I with intumescent **All barriers 1 Metre Long**

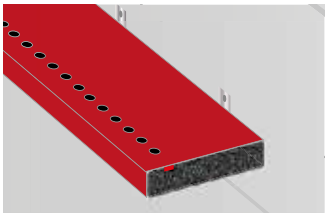
	Width	30/60 minutes / Thickness	120 minutes / Thickness
RSM/I/150	150mm	40mm	50mm
RSM/I/180	180mm	40mm	50mm
RSM/I/200	200mm	40mm	50mm
RSM/I/250	250mm	40mm	50mm
RSM/I/300	300mm	40mm	50mm



RSM/A with intumescent holes to give ventilation and allow moisture through. Option 1 hole ref A 2 holes Ref B

RSM/A with ventilation holes **All barriers 1 Metre Long**

	Width	30/60 minutes / Thickness	120 minutes / Thickness
RSM/A/150	150mm	40mm	50mm
RSM/A/180	180mm	40mm	50mm
RSM/A/200	200mm	40mm	50mm
RSM/A/250	250mm	40mm	50mm
RSM/A/300	300mm	40mm	50mm





Crown Place, Portsmouth

Crown Place is a 23 storey building in Portsmouth constructed for student accommodation. The project offers 576 beds to students attending the University of Portsmouth, as well as an in-house gym, social spaces and study areas. The site is located approximately 500m from the main University campus and directly opposite Portsmouth & Southsea train station. To prevent spread of fire Envirograf® RSM cavity barrier was specified and installed horizontally and vertically.









NORMAN HOUSE, SAVOY ESTATE IN LONDON



Norman House was built in the 1920's in the heart of the Savoy Estate along The Strand in London. The building iunderwent major refurbishment and required two new storeys to the front of the building and three to the rear of the property plus two large terraces. Once finished, it will provide accommodation, restaurant and retail space.

Envirograf® were contacted about using our products to fireproof the cavities on the new stories. We worked with the installers, Richardson Roofing, to specify a combination of our products including RSM running vertically and the FFCB running horizontally. Due to the unique shape of the building our barriers had to be reshaped to fit.



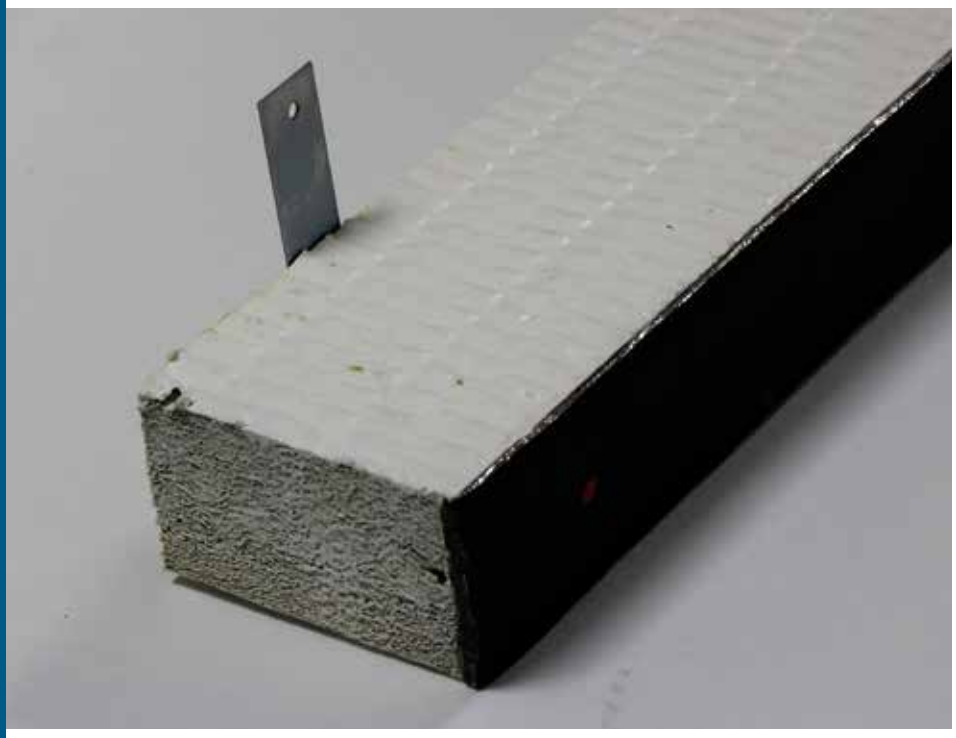






FAST FIX CAVITY BARRIER

Barriers designed especially for rainscreen façade systems





4 brackets supplied for every 1200mm barrier



Brackets are easily pushed through the barrier

ADVANTAGES

- Effective solution for ventilated rainscreen cavities
- Suitable for both horizontal and vertical application
- Maximum air gap up to 40mm
- Very simple installation process
- Supplied in 1200mm lengths with 4 fixing brackets
- 3 hours fire protection for cavities from 75mm to 315mm
- Slab completely sealed from moisture and rain.
- Coated white top and bottom.

PERFORMANCE

BS/EN1363-1 (1999) tested to 238 minutes fire integrity and 199 minutes thermal insulation.

CAUTION

Avoid stacking slabs with white surfaces in contact with each other, as they will self-bond.



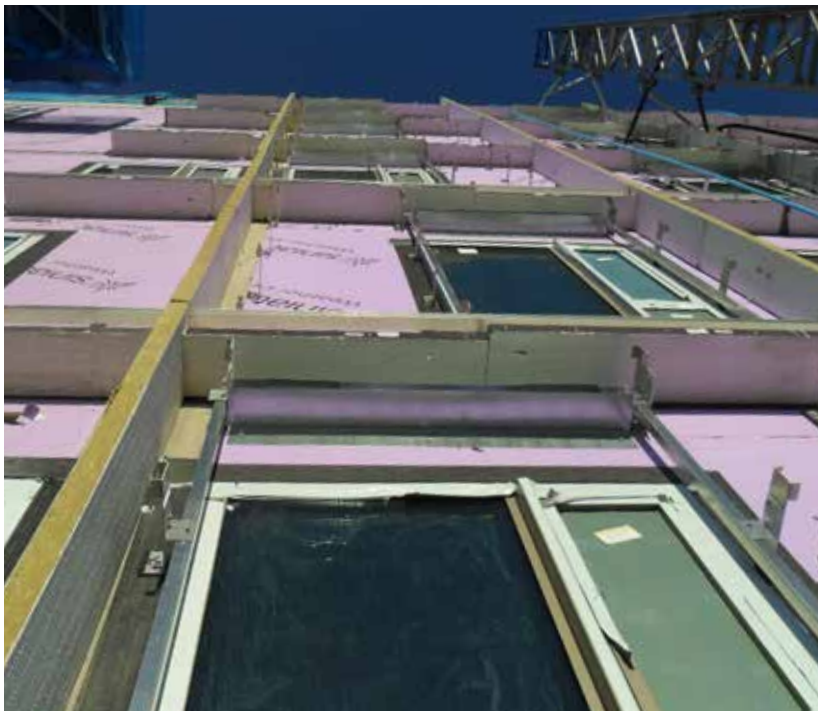


INSTALLATION

The barrier must be mechanically fixed to the substrate with non-combustible fixings, one bracket 50mm from each end and the remaining two brackets evenly spaced. When fixing the brackets into the barrier, ensure they are centred and fully pushed in.

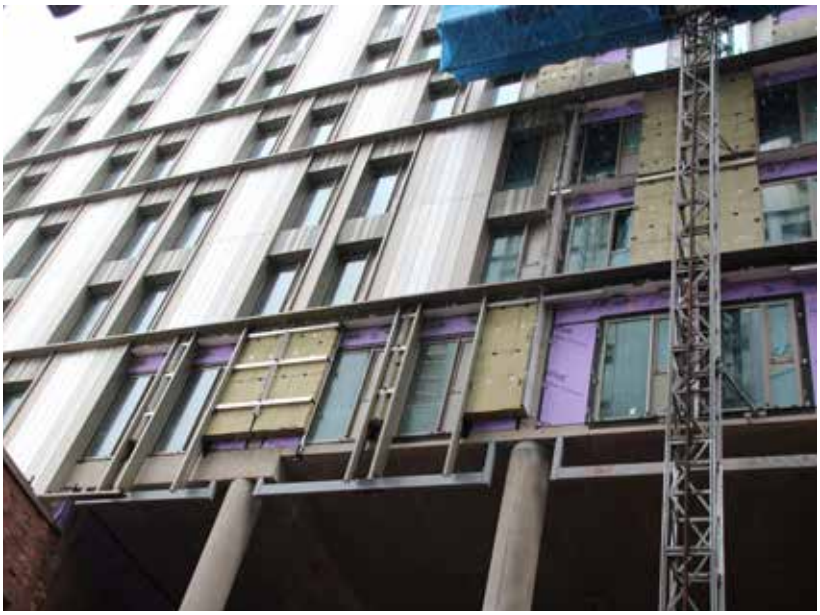
When attaching to the wall, ensure there are no gaps between the substrate and the barrier.

FIRE TEST PERFORMANCE	
EN 1363-1 : 2012	238 mins integrity 199 mins insulation





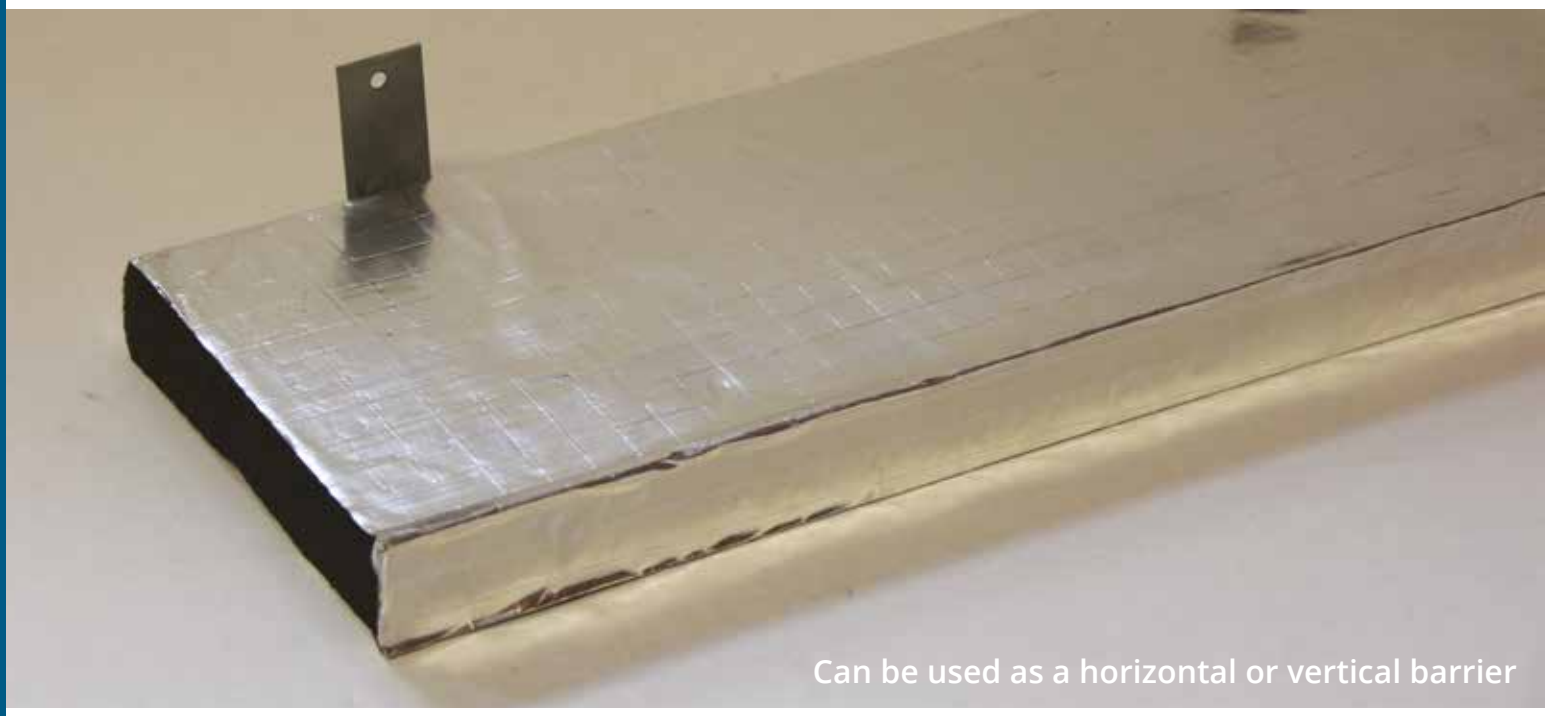






RSF RANGE

Barriers designed especially for rainscreen façade systems



Can be used as a horizontal or vertical barrier

The new RSF range has been especially designed to offer excellent passive fire protection for rainscreen and other types of cladding. This range uses fireproof sponge instead of mineral fibre, which offers many advantages:

- Fixing brackets already in place - fix with screws, nails or spit nails
- Barrier is much thinner and offers better fire rating
- Easy to fix - no masks needed (non-fibrous)

Specification

Thickness	40mm to 50mm (depending on fire rating required)
Width	Made to any width required
Length	1000mm
Max ventilation gap	50mm with RSF/I Range. State gap size required

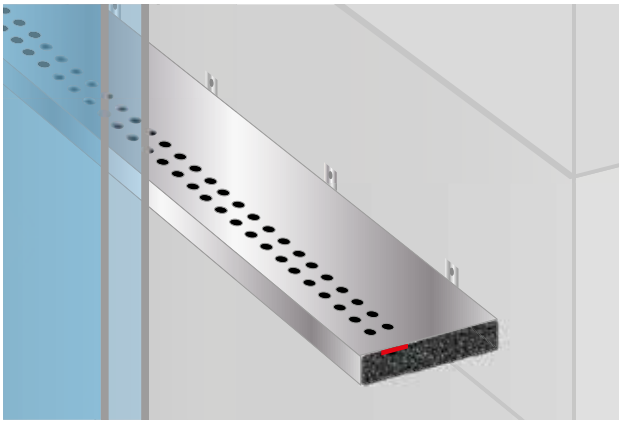
Cover made from a strong craft paper, housing our impregnated intumescent sponge.



Installation

This barrier comes supplied with 4 fixing brackets which can be simply screwed, nailed or spit nailed to the internal wall (pre-drilled holes are suitable for up to 12mm size screws.)

Non-fibrous products used in this barrier makes it even easier to install. The barrier can be easily cut with sharp knife. If, during installation you find wall imperfections, these can then be filled with Envirograf® Intumescent Mastic (Product 58).



VENTILATION HOLES

PATTERN A	1 row of holes 12mm diam. 50mm centres
PATTERN B	2 rows of holes 12mm diam. 50mm centres



FIRE TEST PERFORMANCE

EN 1363-1 2012 *(RSM/I)*	170 mins integrity 103 mins insulation
EN 1363-1 2012	68 mins integrity insulation - N/A

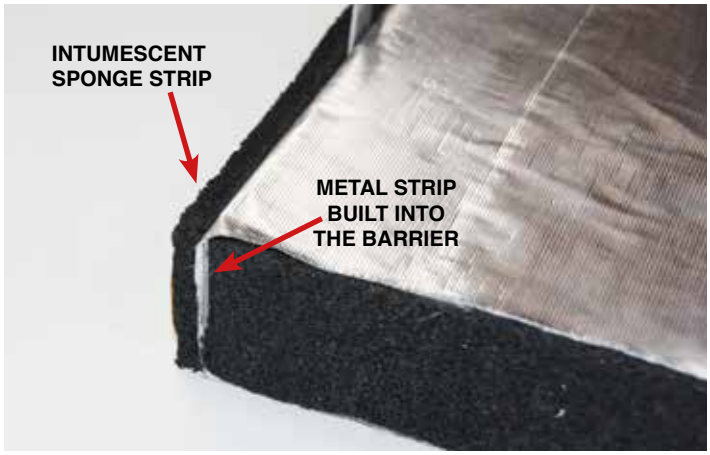
RSF with added moisture penetration protection

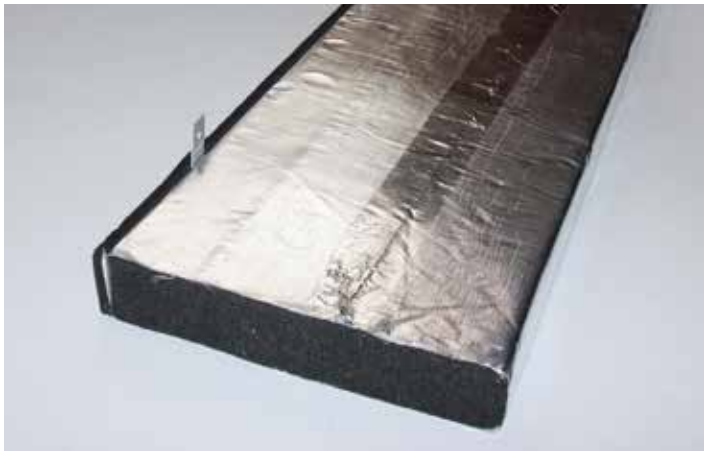
In some cases there may be a requirement for a perfect seal along the back fixing edge to seal and stop moisture penetrating down the back of the seal. We can supply the RSF range with a backing to stop the moisture penetration.

The barrier has a strip of intumescent sponge along the back of the barrier that stops moisture from penetrating the seal. Also there is a sturdy metal strip built inside the barrier along the back to ensure there is a perfect seal.

Can be added to all RSF Barriers.

Add **/MR** to reference when ordering.





CV CAVITY STRIP BARRIER

Barriers designed especially for timber frame buildings



Modular building schemes are now a popular construction method used throughout the UK and Europe. Steel frame structures clad externally with various materials offer fast and economical design solutions within the construction industry. Also timber framed buildings with external cladding in brick, block, wood and tiling.

Fireproofing cavities remains equally crucial in maintaining the overall fabric and safety of these buildings, and Envirograf® have designed a unique fire seal for the purpose of cavity sealing when required for external clad buildings.

Comes in 1 metre, 2 metres and 3 metre lengths
Giving fire protection from 60 minutes to 120 minutes
Tested to BS476 parts 20, 22 and EN European 1363-1 2002

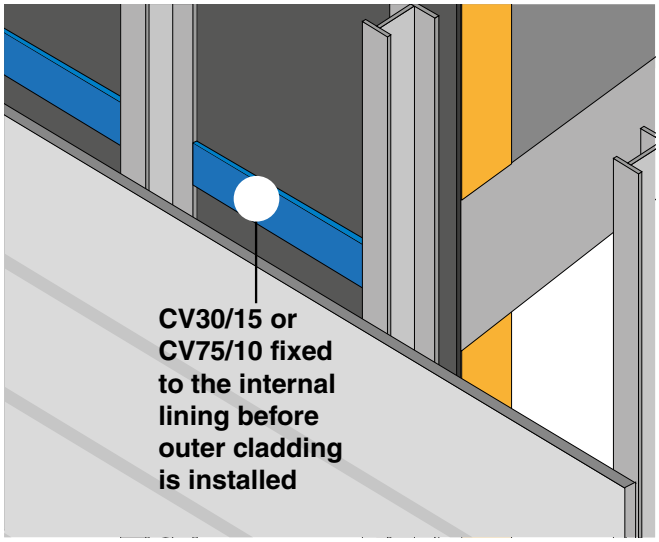
FIRE TEST PERFORMANCE

BS EN 1363-1 : 1999	91 mins integrity 75 mins insulation
EN 1364-1 : 1999	120 mins
EN 1364-6 : 2016	60 mins

The Envirograf® flexible strip range barrier is a thin, flexible PVC and foil clad intumescent material with a self-adhesive backing tape for adhering to the wall. Additional fixing can be done by using staples, nails or screws. The seals can be cut to any length with a joint sleeve supplied for sealing off the ends. A strip form of high expansion intumescent with medium pressure to lock against the internal side of the external wall in a fire, giving full fire protection without affecting the outer wall. A quick and easy method of application and fixing. The strips are in a blue plastic sleeving, robust enough to stop any damage by water or insect/ animals or when fixing. Can be sleeved in other colours (White, Black or Red).

Being flexible, they can be used on curved surfaces and profiled surfaces.







APPLICATION

Peel off paper from double sided tape. This tape has been developed to ensure good adhesion to most products. The strip must then be permanently fixed with non-combustible fixings, e.g screws or large headed nails; fixings approximately 300mm apart. CV strip for cavities up to 60mm does not require any brackets, as the expanding intumescent is self supporting in the event of a fire. For larger cavity gaps CV30/8, CV30/10, CV30/12, CV30/15 or CV75/10 are supplied with brackets for extra supports.

Should you need to cut the Barrier, please **ensure all joints are sealed with the strips** which are supplied. We can supply more strips if required for a small charge. Should you need to cut the barrier for installation purposes then the barrier must remain continuous without any breaches i.e. full length and height where applicable. Each length should be tightly butted up to the next. **Do not allow any gaps in between each length of barrier.**

CV30/8, CV30/10, CV30/12 CV30/15 and CV75/10 are supplied with fixing brackets and all brackets must be mechanically fixed to the substrate





CV30/8 Strip



CV75/10 Strip

All Envirograf® products are produced in our factories in Dover and Newcastle and are ISO EN 9001:2000. Products tested in UK and other European countries.

Ordering References

CV Cavity Strip 30mm wide strip with plastic facing, double sided tape on back in different thicknesses, to fill cavity voids both vertical and horizontal

CV Cavity Barrier Strip

	Width	Thickness	gap size protection	1m long	2m long	3m long
CV30/4	30mm	4mm	30/45mm			
CV30/6	30mm	6mm	50/60mm			
CV30/8	30mm	8mm	with brackets	60/70mm		
CV30/10	30mm	10mm	with brackets	80/90mm		N/A
CV30/12	30mm	12mm	with brackets	95/105mm		N/A
CV30/15	30mm	15mm	with brackets	100/120mm		N/A
CV75/4	30mm	4mm	30/50mm		N/A	
CV75/10	75mm	10mm	with brackets	80/100mm		
N/A						

Llys Cadwyn, Taff Vale Redevelopment, Pontypridd

Llys Cadwyn is a £38 million development of the old Taff Vale Shopping Centre. The development provides over 14,000sqm of office space and a striking gateway multiuse building for Rhondda Cynon Taf County Borough Council. Due to the unique curved shape and the special zinc cladding tile system of this building, Envirograf® CV cavity barrier was specified and installed.







CAVITY BARRIER WITH RODENT PROTECTION

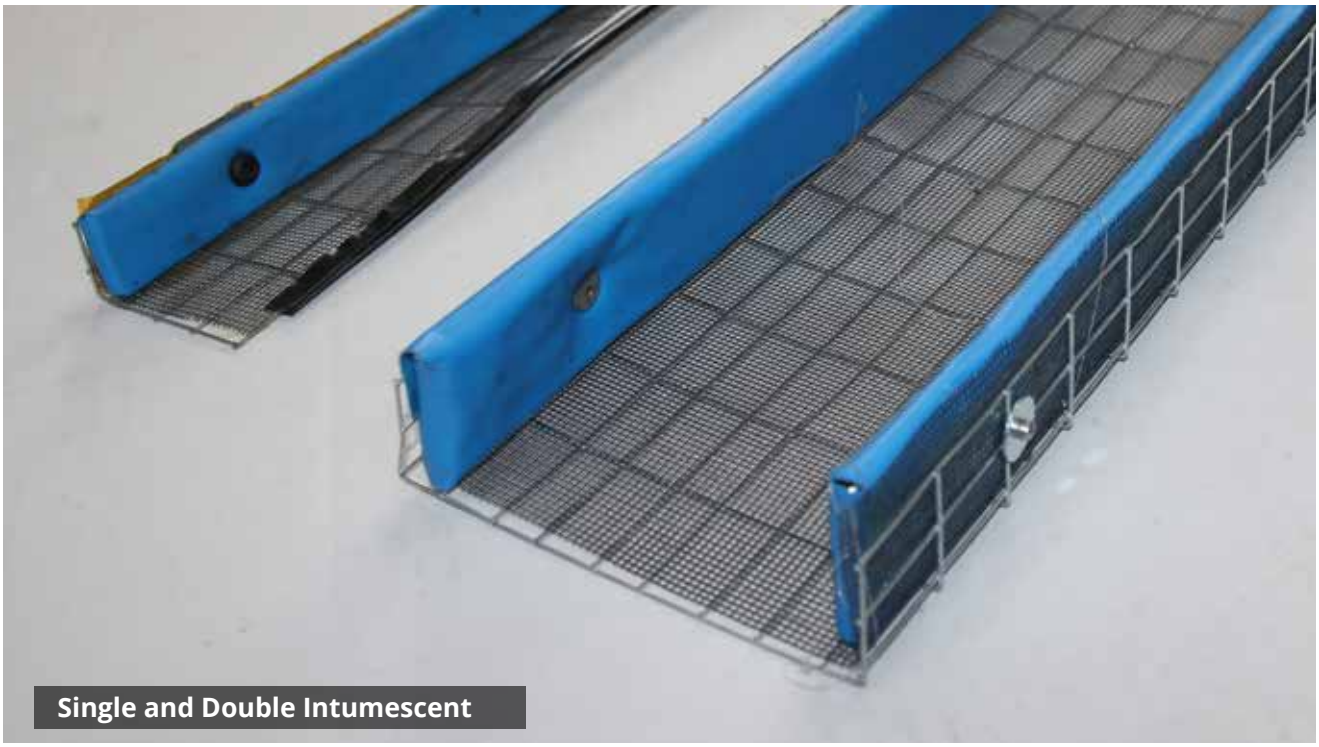


Rodent Protection Cavity Barrier

The VWB/M cavity barrier is designed for the bottom edge cavity of timber framed buildings outer cladding sections. The VWB/M is used to stop fire penetration getting behind the boards and wall face. Comprising galvanised 12mm mesh foiled with 2mm Envirograf® multigraf intumescent, finished in a tough PVC coating, (the coating can be black, brown, red or white).

The VWB/M includes a series of ventilation holes 10mm dia in either one or two rows allowing for both air flow and moisture release. The VWB/M also offers protection from rodents getting into the cavity.

Supplied in 1 metre lengths with standard width sizes of 50mm, 80mm, 100mm, 120mm. Other widths can be made to order. Our 50mm and 80mm widths come with one single intumescent strip. Our 100mm and 120mm widths come with two intumescent strips.



Single and Double Intumescent







Canterbury CV Strips

In November 2020, NHBC updated their standards to include the following:

6.1.4 The cavity in the masonry cavity wall of a building can provide a route for the spread of smoke and flames. Cavities should be closed with cavity barriers, in accordance with Building Regulations.
Cavity barriers should be provided:

- *at the edges of cavities, including around openings e.g. window and doors,*
- *where the cavity abuts compartment walls and floors,*
- *where to break up extensive cavities which could act as a route for fire spread.*

Cavity barriers need to achieve a minimum of 30-minute fire resistance.

On a site of up to 500 new dwellings in Canterbury in Kent, our CV Cavity Strip Barriers were used to fire protect the new builds. Due to the new NHBC standards we ensured these were being followed on site. You can see the CV strips run along the top of windows and openings and run consistently along compartment walls and floors.



Peterborough Hospital Staff Accommodation

Peterborough's £5.9 million staff accommodation project, featured over 100 beds, increased levels of insulation, low-energy lighting, energy efficient heating systems and water-saving technology; As well as Envirograf's state of the art cavity barriers, providing fire protection for the building.

The new accommodation block was installed by Elliott, with the help of Richard Morris Construction Ltd in just 16 weeks on site. The building has a 60 year structural design life with a 25 year structural warranty.

The company has over 50 years experience of delivering innovative design and build solutions and is able to help clients achieve the highest environmental ratings and carbon neutrality.

At the time of building, Dr Peter Reading, interim Chief Executive at Peterborough and Stamford Hospitals NHS Foundation Trust, said: "I am pleased that the Trust is able to work with a local company to develop the site and we look forward to watching it quickly take shape."

Bernard Quenot, Managing Director of Elliott, said: "We have a long track record of providing high quality building solutions on time and within budget. Our off-site systems offer assured levels of quality as well as meeting all current regulatory requirements."





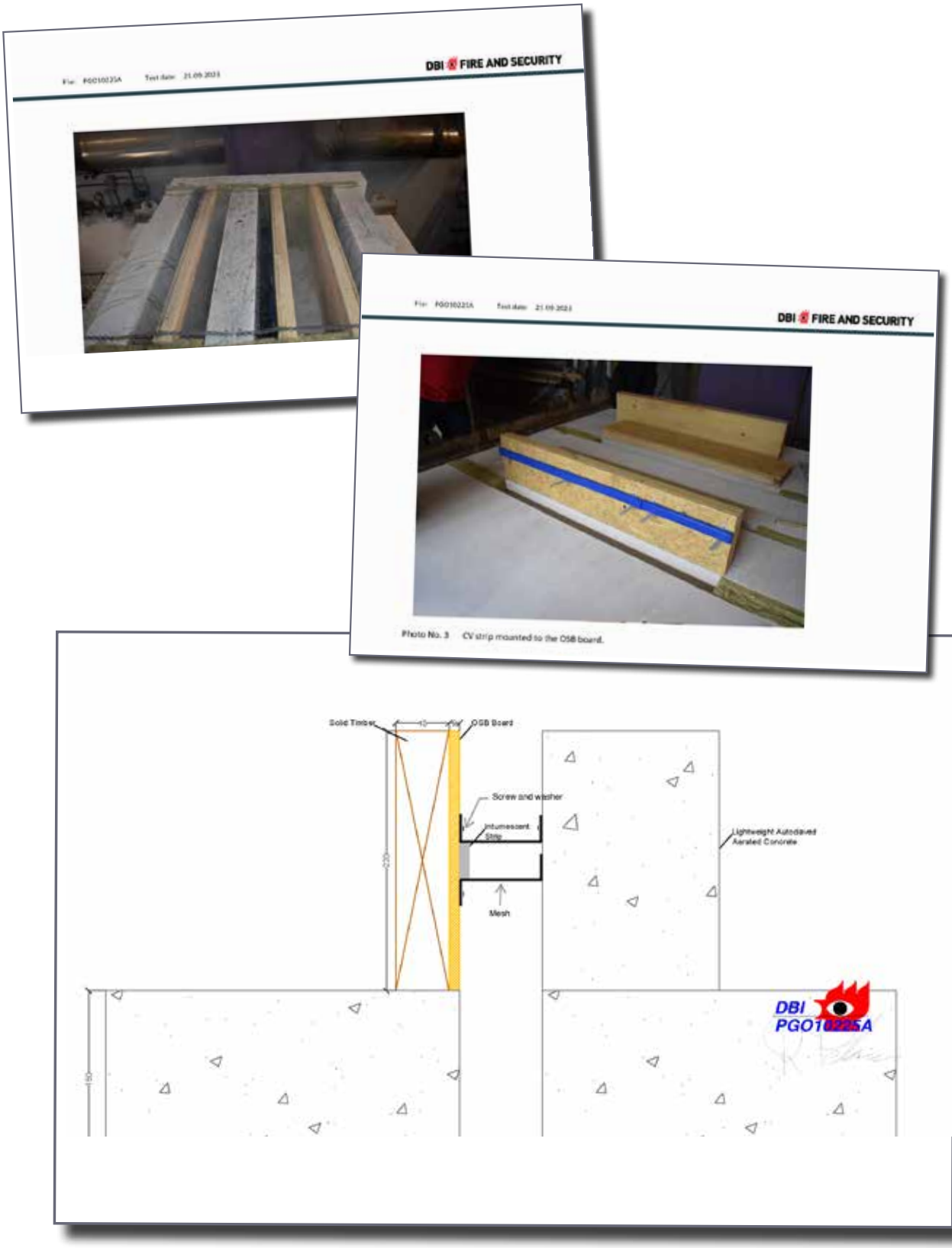
Simple and quick installation process



Horizontal installation

CV CAVITY BARRIER STRIPS FIRE TESTED WITH OSB SUBSTRATE TO ACHIEVE 66 MINUTES FIRE PROTECTION

Envirograf CV strip barriers were tested in accordance with EN 1363-1:2020



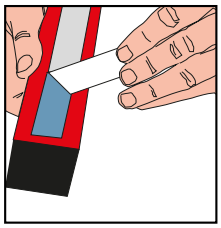
FB/TS CAVITY BARRIER

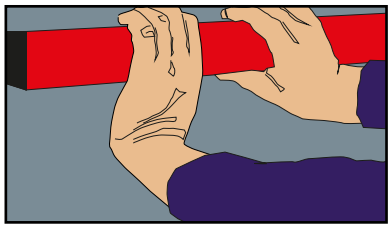
Barriers designed especially for timber frame buildings


St. Albans' Oaklands College

The use of timber framing in building design has now become one of the most common forms of construction. Building Regulations clearly outline fire protection measures designed to prevent fire and its spread for timber construction, but, as shown in a recent article, published by Fire safety Engineering, two advisory groups have issued urgent warnings to government concerning fire safety in timber framed buildings.

Envirograf® have responded to these issues by designing a series of intumescent products especially designed for timber framed buildings. All the products in this range have been tested according to the appropriate fire test requirements in fully accredited test houses in the UK and Europe, and offer excellent fire ratings, fully satisfying UK Building and European Regulations.





Fixing - FB/TS Cavity Barrier

Simply peel off the self adhesive tape backing and then fix into position by pressing the barrier seal firmly into position.

If fixing to the brickwork or concrete, also use Product 46 IA Adhesive.

Benefits

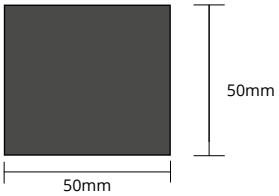
Fireproof sponge with intumescent coating

Sealed in a UPVC foil, this cavity barrier offers optimum durability and moisture protection as well as a continued thermal insulation within the cavity section.

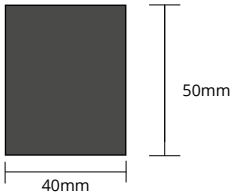
Powerful intumescent seal

In the event of a fire, the intumescent seal will expand, filling the cavity and stopping the spread of fire and smoke.

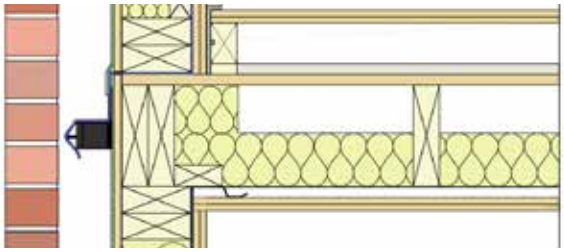
Dimensions



FB/TS



FB/TS/2



Party Floor Sections (Product 55)

Party floors (load bearing and non-load bearing) are floors that separate compartments. Timber party floors are required to offer fire resistance from below and should offer the same fire rating as the connected walls.

It is crucial that the correct passive fire cavity barrier is fitted and located in the correct position.

The Envirograf® FB/TS Cavity Barrier is probably one of the simplest cavity seals to install in these areas, and because it has a protective outer sleeve, offers full condensation protection and 123 minutes fire rating.



FIRE TEST PERFORMANCE	
BS476 Part 20 : 1987	66 mins integrity 50 mins insulation

FB/TS - Ideal for rendered wall finishes

FB/TS has been fire tested in many ways and in many situations. The intumescent material inside the barrier varies according to the depth of the barrier, as the sponge interior is fireproof and has been tested without any intumescent for two hours. The intumescent material expands up to 50% of the depth of the barrier, i.e. 50mm barrier will expand 25mm which will continue to give full fire protection to the 50mm wide gap.

Ordering References

FB/TS Cavity Barrier for use vertically and horizontal. An impregnated fireproof sponge faced with intumescent. Red PVC covering and double-sided tape on one side.

Can also be used as a fire break under tiles, a break between battens to stop fire from one roof to the next.

FB/TS Cavity Barrier

		50mm x 50mm	40mm x 50mm
FB/TS	Timber frame with brick/timber facing 50mm sponge and intumescent for party walls and floors		
FB/TS/TB	Timber frame with tile facing 50mm sponge and 2 face intumescent for party walls and floors	**Available in 1 metre lengths**	

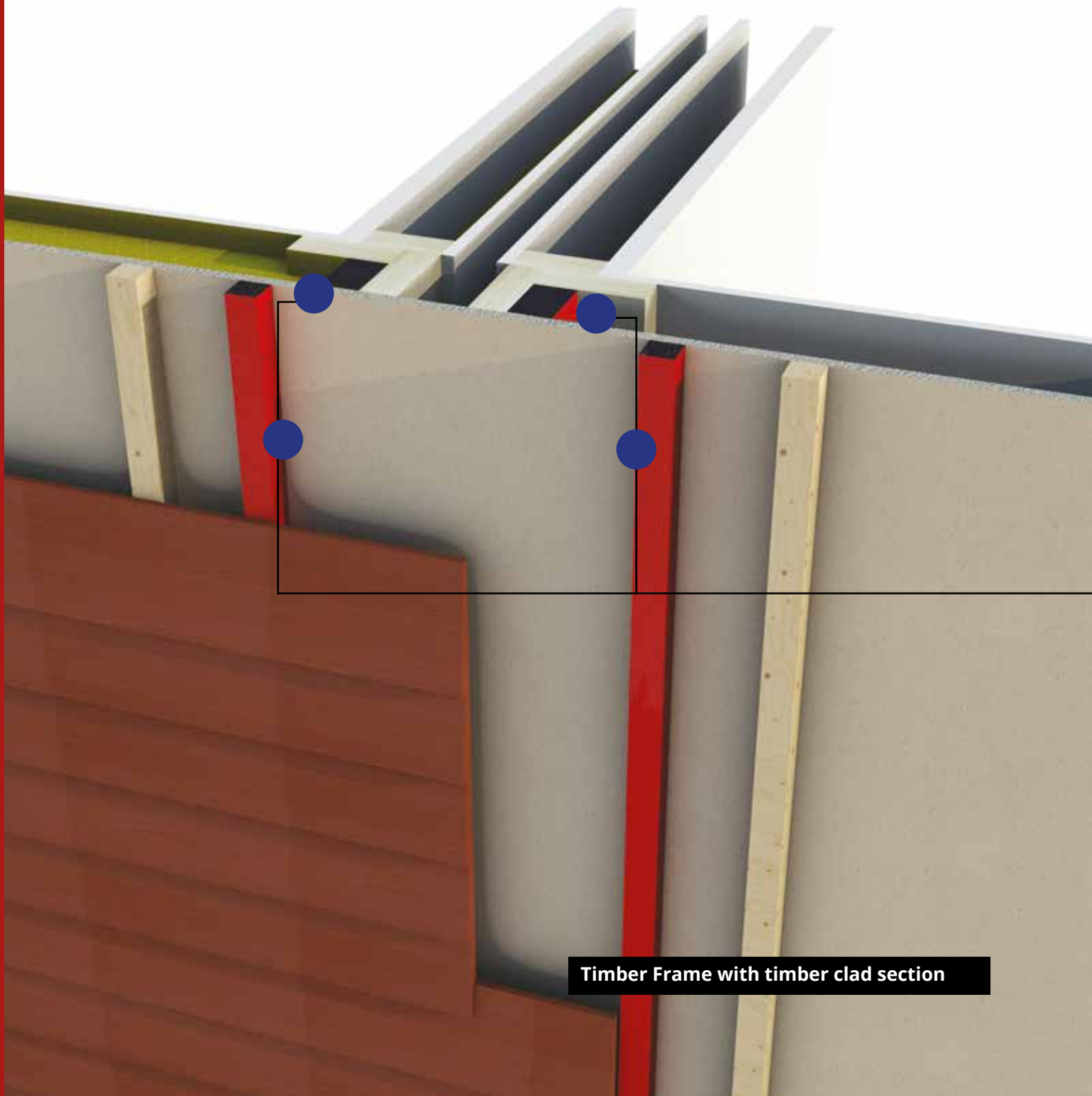
Can be made to any width over cavity



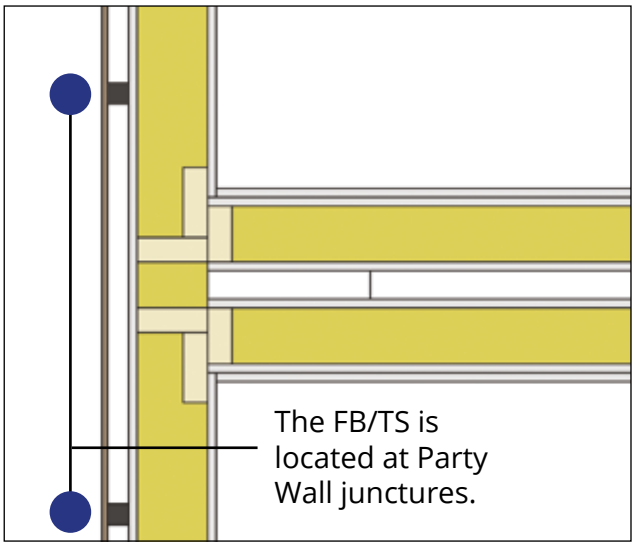
Party Wall Sections (Product 55)



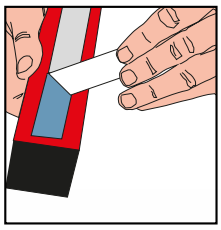
Party walls (load bearing and non load bearing) are walls that act as separating or compartment walls. All of these wall types are required to offer a fire resistance rating, dependent upon the building design, type and how many floors it has. At the party wall juncture there will be cavity areas and it is crucial that the correct passive fire cavity barrier is fitted and located in the correct position. These barriers are required to offer moisture and condensation resistance. The Envirograf® FB/TS is a non-fibrous sponge faced with an intumescent strip and covered in an outer protective sleeve offering full condensation protection and 123 minutes fire protection. The FB/TS is simply fixed into position with a high-tack self adhesive tape supplied on the fixing side.

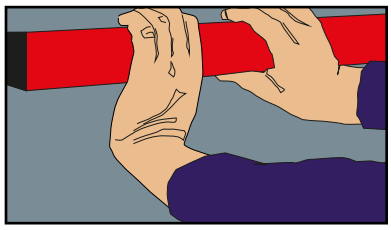


Timber Frame with timber clad section



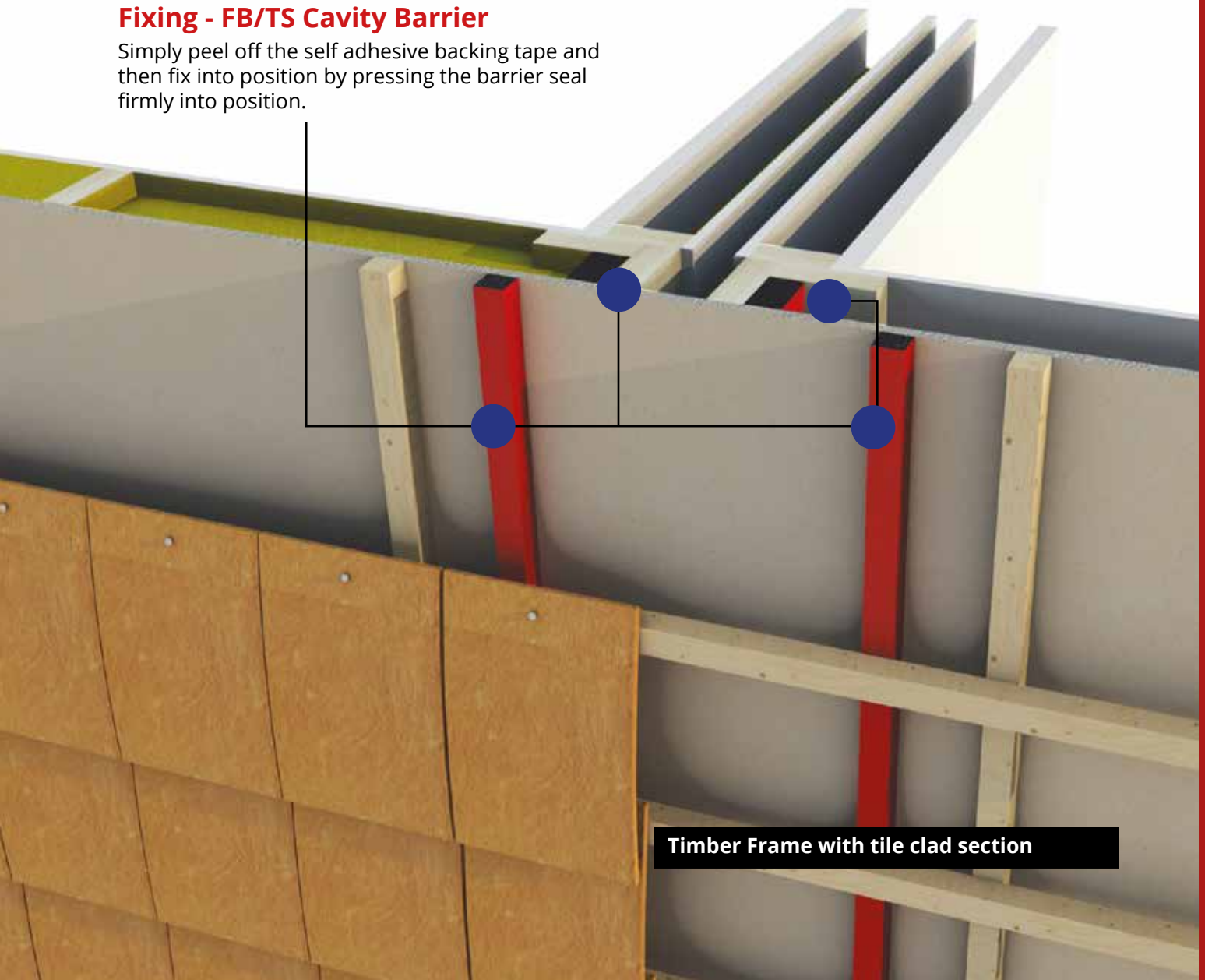

Timber Frame with tile brick faced section





Fixing - FB/TS Cavity Barrier

Simply peel off the self adhesive backing tape and then fix into position by pressing the barrier seal firmly into position.


Timber Frame with tile clad section

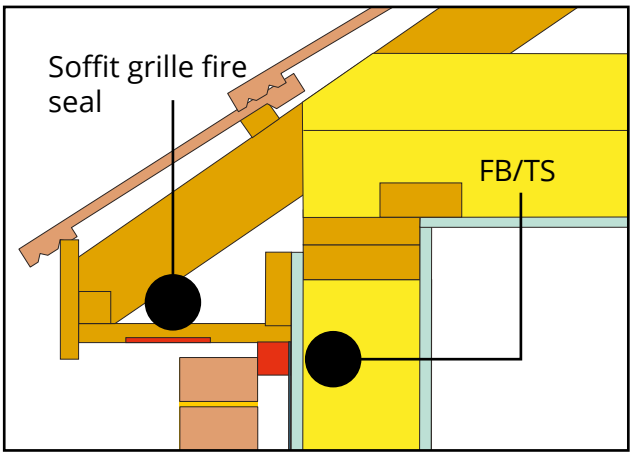
Roof Sections (Product 55)

Building design requirements and their respective fire resistance ratings are no different for timber framed buildings compared to other building types as detailed in the Building Regulation Documents. There are no fire resistance ratings required for roof areas unless they are used as an occupied space. If the roof area is to be used as habitable accommodation, the floor and wall should have the same fire resistance as the respective walls and ceilings as specified by the Building Regulations.

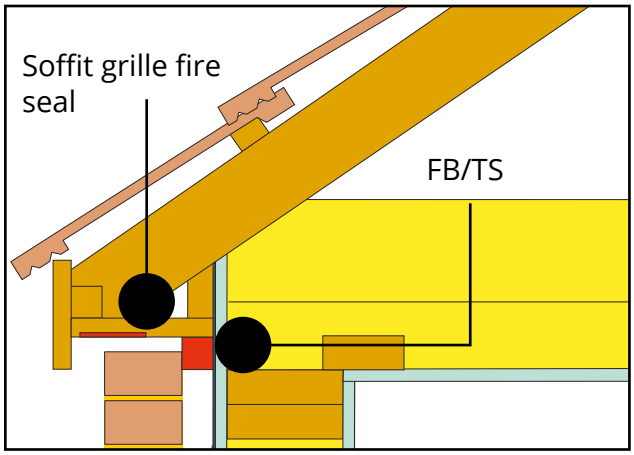
The design detailing should include a cavity barrier at the top section of the party wall, maintaining its fire resistance into the roof space.

Soffit ventilation grilles offer a fire rating, that prevents fire from spreading into the roof void.

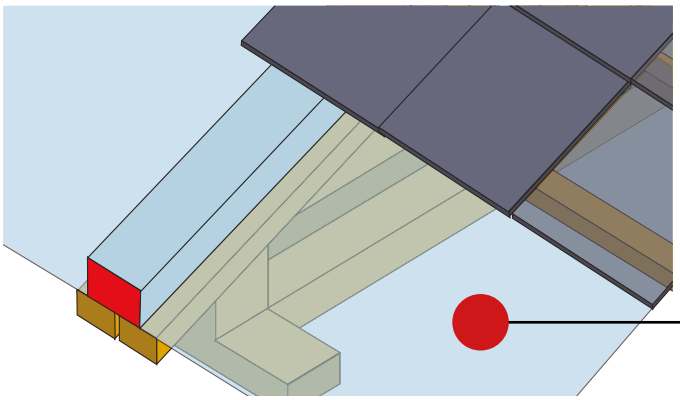
Soffit boards can be fire rated using one of the Envirograf® Fire Protection Coatings - please see data sheet or call our Technical Department.



Cavity seal fixed in cavity roof section: Projected boxed eaves



Cavity seal fixed in cavity roof section: Clipped eaves



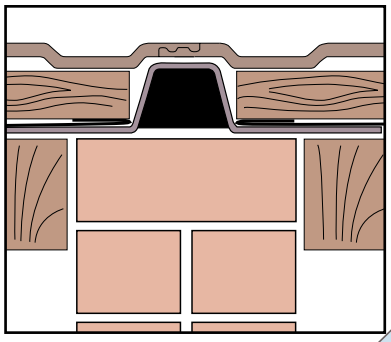
Product 55
Located at both the spandrel section between the roof membrane and at the boxed eaves section.

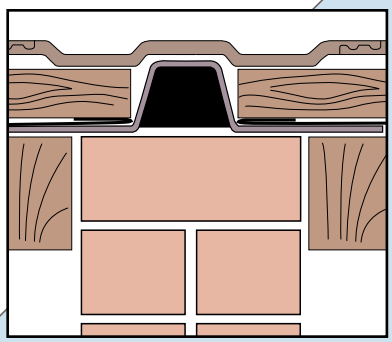
FIRE-STOPPING ROOF DIVIDER FOR USE IN TERRACED OR SEMI-DETACHED HOUSES

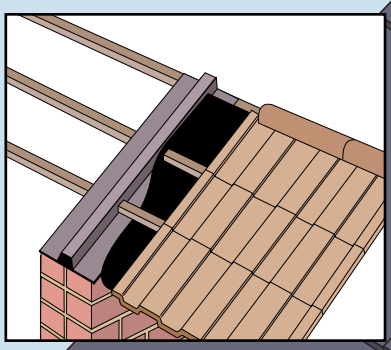
- This product comprises of Envirograf® fireproof sponge with an intumescent coating, covered in a red PVC material which is completely waterproof. Product references: FB/TS and FB/TS/TB.
- In a fire, it seals off one roof from the next, because of its highly-effective intumescent coating material, which expands in all directions to close any gaps and stop fire penetrating.
- Lays flat onto the party wall (brick, block, or timber) or on top of the roofing felt.
- Standard sizes available: 1m length; 25mm, 40mm, and 50mm thickness; 40mm and 50mm width (other sizes made quickly to order).
- Can be compressed to 50% of its original thickness (e.g. 50mm thickness can be compressed down to 25mm thickness).
- Quick and easy to fit, thanks to its double-sided self-adhesive backing tape for adhering into place.
- Can be cut to length with a sharp knife.
- It contains no harmful fibres or other harmful materials, so it is completely safe to handle.
- In a fire, the product does not give off any toxic fumes.
- Fire protection up to 3 hours.









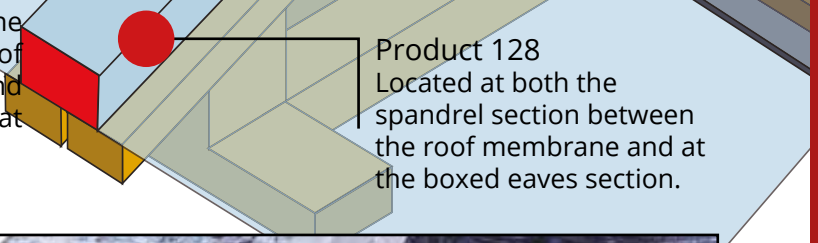


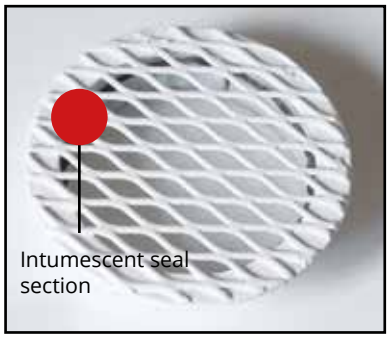
Typical roof section at the party wall juncture -

Spandrel panel method (Product 128)

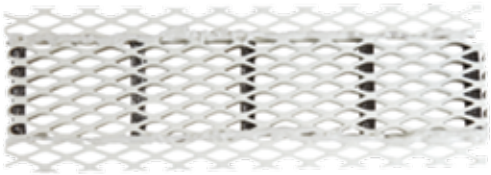
Fires can spread into adjoining properties through openings in the roofing sections. Timber framed properties often employ the spandrel panel method at the party wall junction.

The Envirograf® Roofing Fire Break Membrane Barrier (Product 128) is installed in this roof section type, offering 1 hour fire protection and supplies acoustic and thermal protection that exceeds most average mineral wool options.

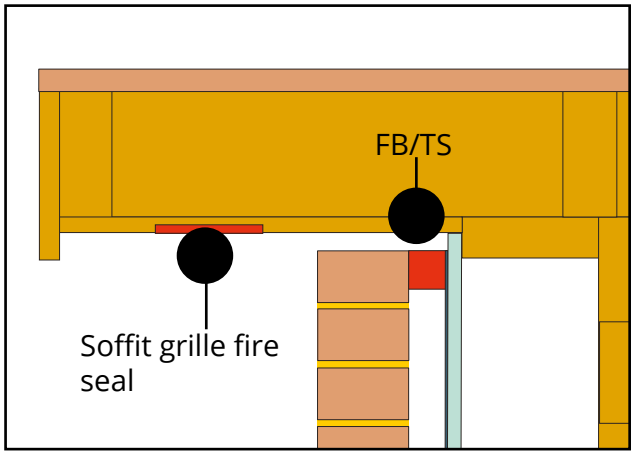




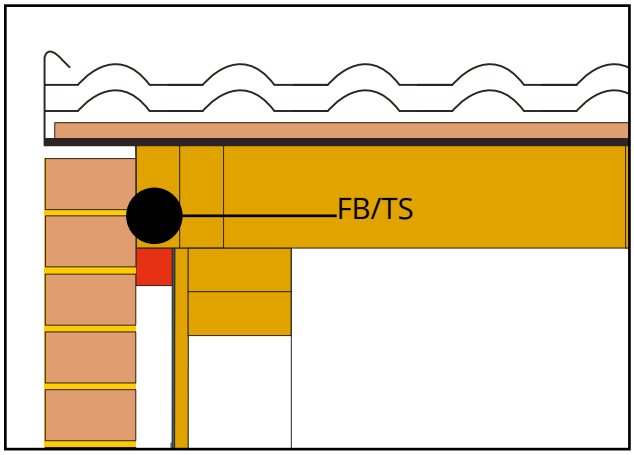




The Envirograf® soffit Fire Grille



Cavity seal fixed in cavity roof section: Projected verge using gable ladder



Cavity seal fixed in cavity roof section: Clipped verge end

THERMAL CAVITY BARRIERS

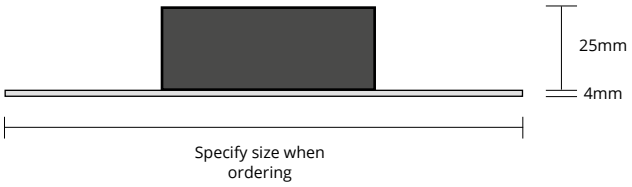
Barriers designed especially for timber frame buildings

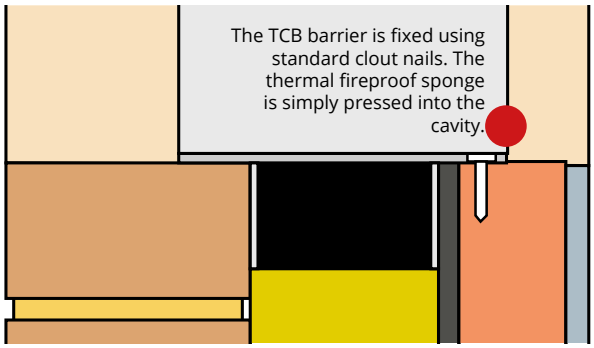


Thermal Fire Cavity Barrier

Documents L1B and L2B offer clear guidance on the design for energy efficient buildings. Document BRE 262 details the required recommendations for thermal insulation installation for cavity barrier areas that helps to satisfy these obligations.

The Envirograf® Thermal Cavity Barrier is an ideal solution where both fire and thermal protection is required, particularly in cavities around window and door apertures. The barrier is waterproof and completely moisture resistant and offers over 1 hour fire protection, as well as creating an effective thermal barrier between the cavity and window/door frame section.





Fixing

The TCB Cavity Barrier comprises of a flexible fireproof sponge fixed to a thin foil-faced intumescent strip. The system is completely moisture resistant. Simply cut to the length required and fix using clout nails at (150mm centres.

FIRE TEST PERFORMANCE	
BS EN 1363-1 1999	up to 132 min

Ordering References

Thermal cavity barrier sealing cavities around door and window

Thermal Cavity Barrier

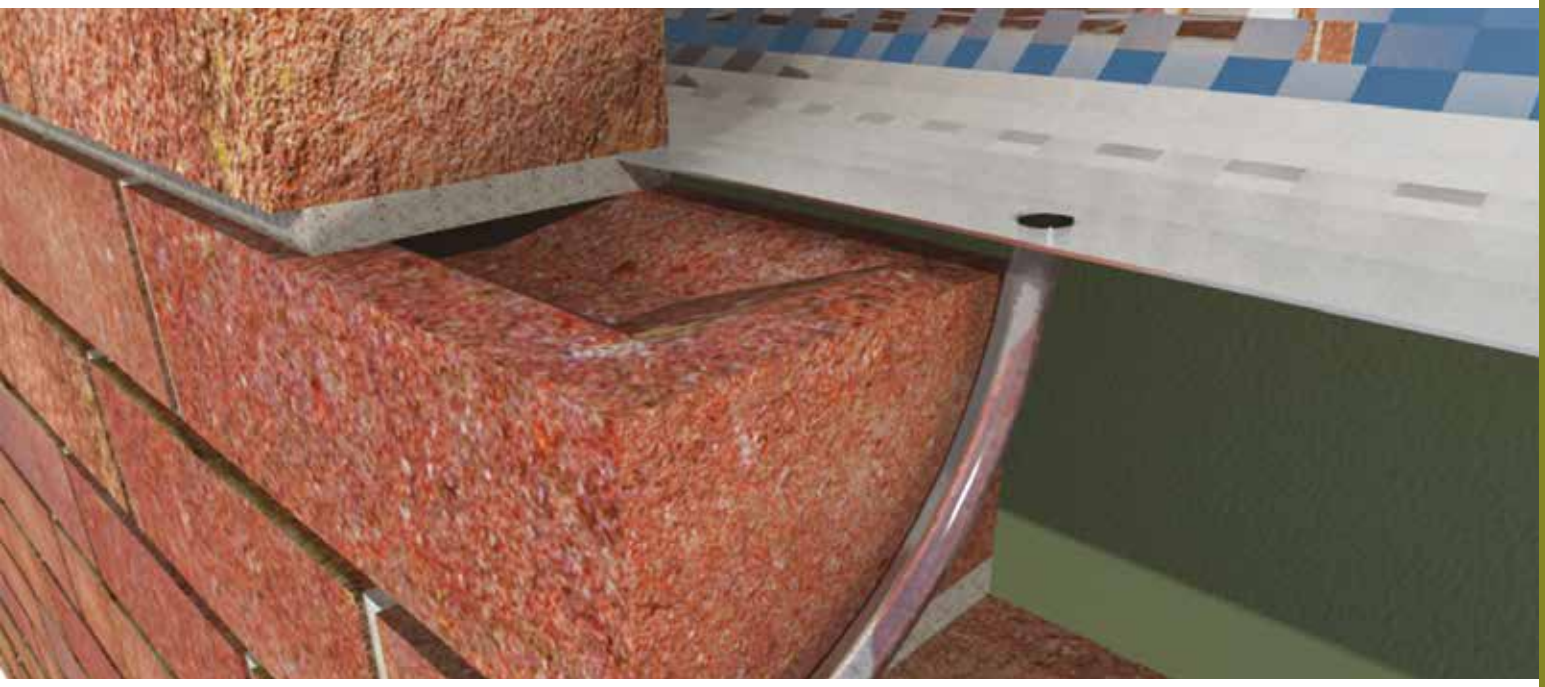
	Cavity Width	Foiled fixing width	Sponge Thickness
TCB/A	50mm	120mm	30mm
TCB/B	50mm	150mm	30mm
TCB/C	80mm	120mm	30mm
TCB/D	80mm	150mm	30mm
TCB/E	100mm	120mm	30mm
TCB/F	100mm	150mm	30mm

950mm long 1850mm long



MOISTURE AND SMOKE CAVITY BARRIER

Barriers designed especially for timber frame buildings



FIRE TEST PERFORMANCE	
BS EN 1363-1 1999	up to 132min

The WB Cavity Barrier can also be supplied as a self draining and air flow system (VWBG). Tubes are fixed into the barrier unit that are then set into the mortar allowing all moisture to drain to the external area, whilst also allowing a free air flow into the cavity area.

This cavity barrier was designed as Building Control wanted ventilation in the cavity to include moisture release, but also wanted a smoke seal within the cavity.

So our plain WB or RS/WB/W barrier which gives a complete smoke seal was manufactured with a tube with rubber grommets, which can be placed through the course in between the brick and block mortar. This can also be used with aluminium rainscreen cladding by drilling a hole in the aluminium to allow the tube to go through - drilled hole size approximately 10mm.

Ordering References

Cavity barrier specially designed to stop smoke up the cavity, but give ventilation and take moisture and water out. For 1 metre 3 grommets and tube for 2 metre 5 tubes

Moisture and Smoke Cavity Barrier

	Gap width	1m long	2m long
VWB75/G	75mm		
VWB120/G	120mm		
VWB150/G	150mm		
VWB200/G	200mm		
VWB250/G	250mm		



Envirograf®



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