



# Rainscreen Cavity Barriers





# A brand and its promise to perform.

## Always on the pulse of time

At fischer, innovation is more than just a sum of the patents. We are open to new things and are prepared for change – always with the aim of offering our customers the greatest possible benefits. Over the years, our own development and production sites have been developing numerous fixing solutions for the most wide ranging applications. Be it new production procedures or materials, such as renewable raw materials: We are carrying out the research for your safety and will continue to do so in the future. This gives us such great flexibility that we can even develop tailor-made customer solutions. This power to innovate has seen fischer become market leader in anchor technology and the fixing industry.

## Our service to you

We are a reliable partner, one that will stand at your side and address your individual requirements with advice and action:

- Our products range from chemical systems to steel anchors through to plastic anchors.
- Competence and innovation through own research, development and production.
- Global presence and active sales service in over 100 countries.
- Qualified technical consulting for economical and compliant fastening solutions. Also on-site at the construction site requested.
- Training sessions, some with accreditation, at your premises or at the fischer academy.
- Design and construction software for demanding applications.

## We take responsibility

Our active environment management policy means that we are helping to maintain an intact environment for our generation and for those that follow. The environment management policy at the Tumlingen site has been certified in line with DIN EN ISO 14001.

It fills us with particular pride that in 2020 we have received the most important and largest award in Europe in the field of sustainability: the German Sustainability Award - category large companies. This was in recognition of our holistic approach and the strategic anchoring of our sustainability management. With our greenline products we have launched the first range of fixings on the market that is based on renewable raw materials to more than 50%.



Greenline assortment based on 50% regrowing raw materials



German Sustainability Award

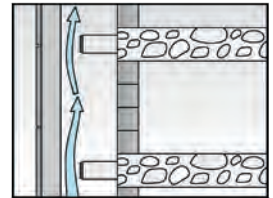
# Design for use in the external building envelope

Rainscreen cladding can be considered as a high risk for the spread of fire.

## Rainscreen cladding systems

Commonly used to give a greater degree of aesthetics and design abilities to a building or structure, allowing the designers more freedom and flexibility when using their design concepts.

Whilst Rainscreen cladding systems exhibit numerous advantages with regards to building physics, the underlining problem with an 'open state' cavity system is to achieve good compartmentation.



## A ventilated façade

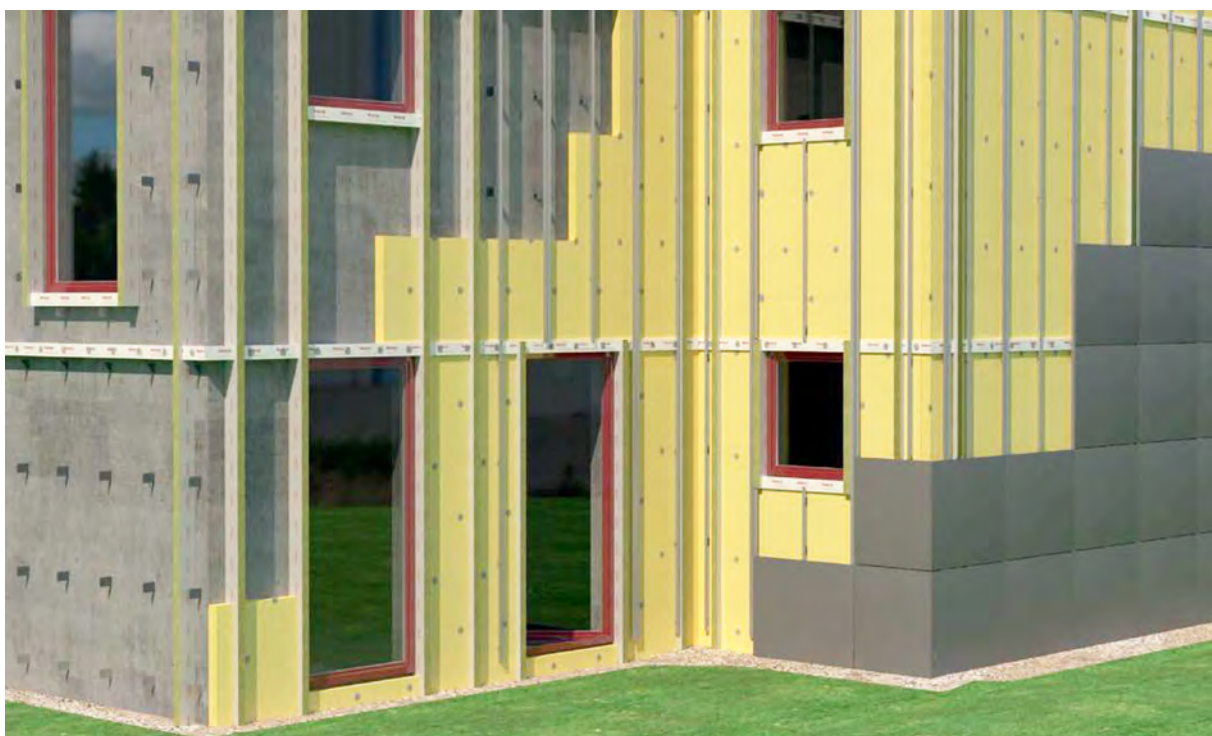
Designed to drain any moisture within the façade construction efficiently whilst maintaining a positive airflow, protected from direct weather exposure and sunlight. The façade allows the building to achieve the highest possible efficiency.

As a positive airflow is a necessary requirement for a rainscreen system, the ventilation gap poses a potential problem which allows the fire to spread rapidly across the building envelope.



## A complete system from one source.

fischer SystemTec offers a complete system approach which consists of specially designed supporting anchors and a light weight framing system comprising of support brackets, vertical and horizontal profiles, cladding support anchors and a unique Fire Barrier System all meeting the highest safety requirements.

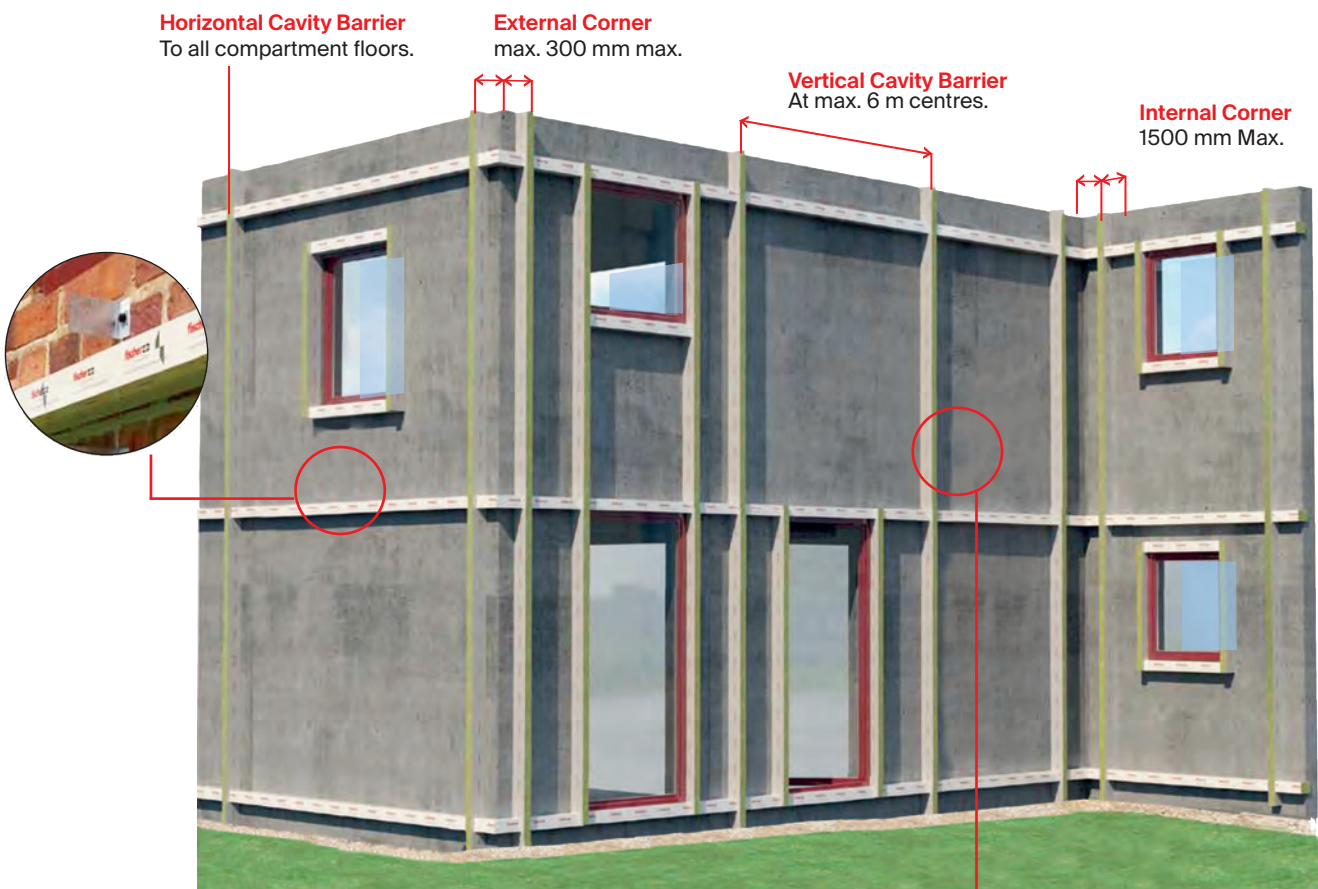


# Achieving compartmentation in a building envelope

## 'Open state' horizontal cavity barriers.

### fischer FFB VS VentiStop

Can provide up to a 50 mm ventilation gap behind the façade panel. In the event of a fire, the gap will be closed by a powerful and specially formulated intumescent expanding strip.



## 'Closed state' vertical cavity barrier.

### fischer FCFcl Cavity Clad

Prevents rapid fire spread horizontally and protects the cavity by dividing it into smaller cavities and closing cavity edges.

The above image is an example of barrier placement. Local or national building codes should be consulted in design.

*Note: Stated positions are examples and subject to actual design and building codes.*

Cavity barriers must have at least 30 minutes of integrity and 15 minutes of insulation in England, Wales, N. Ireland and 30 minutes of integrity in Scotland.

# Open state horizontal cavity barriers.

## FFB-VS VentiStop.



### Performance

- **FFB-VS VentiStop** is a foil-faced, stone wool, pre-cut unit which has a powerful intumescent graphite strip bonded to the leading edge. The intumescent graphite strip is pre-wrapped with a durable polythene adhesive sheet to prevent water ingress.
- The **FFB-VS** has been designed to provide a 25 mm or 50 mm ventilation gap, that allows air flow and moisture to pass down the back of the cladding. Under fire conditions, the powerful intumescent strip along the leading edge expands horizontally to close the gap and prevent the passage of fire.

### Advantages:

- Tested up to 120 minutes integrity and 120 minutes insulation, utilising the heating and pressure conditions of EN 1363-1: 2012 and ASFP TDG19: 2014 - Open State Cavity Barriers.
- Traceability on site: Each 1000mm length is labelled with the unique project details. Including PO number, cavity size and air gap.
- Suitable to close up to 25 mm, 38 mm & 50 mm ventilation gap.
- Cavities up to 450 mm wide.
- Free of halogens, asbestos, fibres and silica and is not toxic.
- Contributes to green building.

### Certification



BS 8414

EN1363-1-TGD19

NFPA 285

## Technical Data

## FBB-VS Ventistop - Open state horizontal cavity barriers



	Code:	Total Cavity mm	Max. Ventitation Gap mm	Integrity min.	Insulation min.
<b>Type</b>					
FFB-VS/0-25 (RSI strip)	553244	0-25	25	120	120
FFB-VS/25-50	521520	26 - 50	25	120	120
FFB-VS/51-100	521521	51 - 100	25	120	120
FFB-VS/101-150	521522	101 - 150	25	120	120
FFB-VS/151-200	521523	151 - 200	38	120	60
FFB-VS/201-250	521524	201 - 250	38	120	60
FFB-VS/251-300	521525	251 - 300	38	120	60
FFB-VS/301-350	521526	301 - 350	38	120	60
FFB-VS/351-400	521527	351 - 400	38	120	60
FFB-VS/401-450	521528	401 - 450	38	120	60
FFB-VS50/51-100	545628	51 - 100	50	120	45
FFB-VS50/101-150	545629	101 - 150	50	120	45
FFB-VS50/151-200	545630	151 - 200	50	120	45
FFB-VS50/201-250	545631	201 - 250	50	120	45
FFB-VS50/251-300	545632	251 - 300	50	60	45
FFB-VS50/301-350	545633	301 - 350	50	60	45
FFB-VS50/351-400	545634	351 - 400	50	60	45
FFB-VS50/401-450	545635	401 - 450	50	60	45
FFB-VS HP80/101-150	572113	101-150	38	120	120
FFB-VS HP80/151-200	572114	151-200	38	120	120
FFB-VS HP80/250-300	572115	250-300	38	120	120

**IMPORTANT:** Fire resistance information above are for representative purposes.

Please refer to certificates and assessment reports for the exact fire resistances of actual cavity depths and air gaps.

## Technical Data

Accessories	Code:	Dimensions mm	Description mm
<b>Type</b>			
Multi Purpose Bracket 230	563201	230 x 25 x 1	A2 stainless steel fixing bracket
Multi Purpose Bracket 390	551868	390 x 25 x 1	A2 stainless steel fixing bracket
Multi Purpose Bracket 500	551954	500 x 25 x 1	A2 stainless steel fixing bracket
Multi Purpose Bracket 600	570346	600 x 25 x 1.5	A2 stainless steel fixing bracket
FCI Cassette tray infill	554125	1200 x 100 x 50	50mm infill with self adhesive tape
RSI Rainscreen Intumescent	553244	25000 x 80 x 2	25m roll intumescent strip
Aluminium Foil Tape	558505	45000 x 100	45m roll 100mm aluminium foil tape

The FBB-VS Ventistop is installed with the fischer Multi Purpose Bracket.  
The brackets are available in 4 sizes: 230mm up to 600mm.



# FFB-VS Installation details

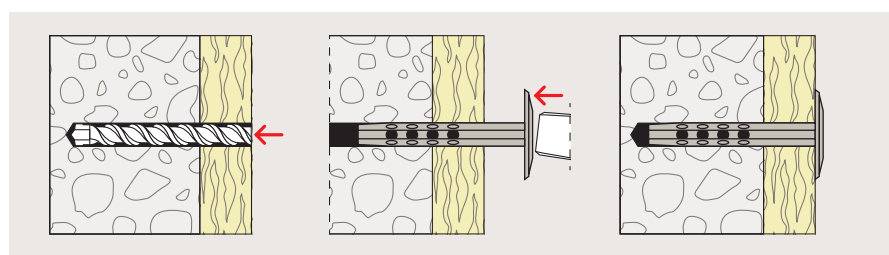
**Note installation instructions:** FireStop material must be installed in accordance with detailed instruction or the approved system.

## Preparation

- Enable access or suitable working platform.
- Ensure that all surfaces are free from loose debris and contaminants.
- Mark positioning of barrier on structure according to the building design.

## Storage & disposal

- FFB-VS VentiStop is not affected by an outdoor environment.
- However, for long term storage and ease of installation it is recommended that it should be stored in dry conditions.
- For a copy of the health and safety details refer to fischer MSDS sheet.

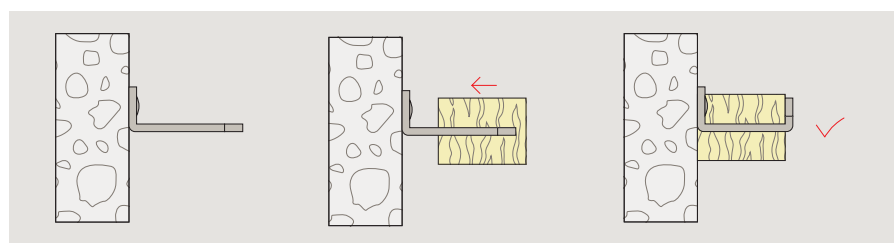


fischer FFB-VS VentiStop Cavity Barrier installed.

## Installation instructions - Solid structure applications and barriers <260mm:

1. Position the fischer FFB-VS VentiStop Cavity Barrier in the required position and using an 8 mm drill diameter, drill through the leading edge of the barrier into the supporting solid structure.
2. The drill hole should be a mid height and spaced no more than 300 mm centres.
3. Position the barrier and insert the fischer DHM Metal Insulation Anchor.
4. Using a hammer tap the fischer DHM Metal Insulation Anchor into position so the head is just starting to compress the leading edge of the fischer FFB-VS VentiStop Cavity Barrier.

**Note:** The drill must be long enough to penetrate the complete barrier and the required drill hole depth 45mm for the fischer DHM Metal Insulation Anchors.



fischer FFB-VS VentiStop Cavity Barrier installed.

## Installation instructions - Light weight framing system and barriers >260mm:

1. Position the fischer Multi-Purpose bracket in required location and using a suitable self-drill, self-tapping screw, attach firmly to substrate. For concrete substrates use appropriate concrete anchors.
2. Inplace the fischer FFB-VS VentiStop Cavity Barrier on to Multi-Purpose Bracket at mid height and push fischer FFB-VS VentiStop Cavity Barrier firmly back to structure.
3. Bend the ends of the fischer Multi-Purpose Bracket in opposite directions to secure the fischer FFB-VS VentiStop into position.

**Note:** The bent tabs of the fischer FFB-VS VentiStop Cavity Barrier should be between 1/2 in. (13 mm) to 1 in. (25 mm) only. Seal all joints and connections of the barriers with a suitable aluminum tape from both sides of the barrier. Do not use the tape on the front side of the barrier where it might disturb the intumescent from activating.

## Fixing Spaces



200mm

	50mm	200mm	50mm
Min.	50mm	300mm	200mm
Max.	200mm		

300 - 700mm

	150mm	200mm	200mm	150mm
Min.	150mm	300mm	300mm	200mm
Max.	200mm			

700 - 1000mm

# FFB-VS Fixings guide

## FFB-VS closed state cavity barrier - recommended fixings

	Substrate	Barrier width mm	Multi-Purpose Brackets mm	Fixing Anchor min.	Screw	Washer
<b>Barrier type</b>						
FFB-VS VentiStop	Concrete / solid masonry	<40	-	DHM 40 A2 (536262)	-	-
FFB-VS VentiStop	Concrete / solid masonry	41-70	-	DHM 70 A2 (536264)	-	-
FFB-VS VentiStop	Concrete / solid masonry	71-100	-	DHM 100 A2 (536265)	-	-
FFB-VS VentiStop	Concrete / solid masonry	101-130	-	DHM 130 A2 (536266)	-	-
FFB-VS VentiStop	Concrete / solid masonry	131-160	-	DHM 160 A2 (536267)	-	-
FFB-VS VentiStop	Concrete / solid masonry	161-210	-	DHM 210 A2 (536268)	-	-
FFB-VS VentiStop	Concrete / solid masonry	211-260	-	DHM 260 A2 (536269)	-	-
FFB-VS VentiStop	Concrete	261-340	500 (551954)	FNA II 6x30/5 R (44122)	-	-
FFB-VS VentiStop	Concrete	341-425	600 (570346)	FNA II 6x30/5 R (44122)	-	-
FFB-VS VentiStop	Perforated masonry	<100	230 (53201)	DuoPower 6 x (30,50) (555006, 538240)	FPF-PT 5 x (40,60) A2	-
FFB-VS VentiStop	Perforated masonry	101-240	390 (551868)	DuoPower 6 x (30,50) (555006, 538240)	FPF-PT 5 x (40,60) A2	-
FFB-VS VentiStop	Masonry	261-340	500 (551954)	DuoPower 6 x (30,50) (555006, 538240)	FPF-PT 5 x (40,60) A2	-
FFB-VS VentiStop	Masonry	341-425	600 (570346)	DuoPower 6 x (30,50) (555006, 538240)	FPF-PT 5 x (40,60) A2	-
FFB-VS VentiStop	Drywall - board	<100	230 (53201)	DuoTec 12 (542796)	FPF-PT 5 x (40,50,60) A2	-
FFB-VS VentiStop	Drywall - board	101-240	390 (551868)	DuoTec 12 (542796)	FPF-PT 5 x (40,50,60) A2	-
FFB-VS VentiStop	Drywall - board	241-340	500 (551954)	DuoTec 12 (542796)	FPF-PT 5 x (40,50,60) A2	-
FFB-VS VentiStop	Drywall - board	341-425	600 (570346)	DuoTec 12 (542796)	FPF-PT 5 x (40,50,60) A2	-
FFB-VS VentiStop	Concrete	RSI strip only		DHM 40 A2 (536262)	-	HA 36 A4 (4285)
FFB-VS VentiStop	Masonry	RSI strip only		DuoPower 6x50 (538240)	FPF-PT 5x60 A2 (657385)	HA 36 A4 (4285)
FFB-VS VentiStop	Drywall - to board	RSI strip only		DuoTec 12 (542796)	FPF-PT 5 x (40,50,60) A2	HA 36 A4 (4285)
FFB-VS VentiStop	Drywall - to metal stud	RSI strip only			Ø5mm stainless	HA 36 A4 (4285)
FFB-VS VentiStop	Drywall - to timber stud	RSI strip only			FPF-PT 5 x (30,40) A2	HA 36 A4 (4285)

- Please check the compatibility of fixings to your substrate!

## Recommended Fixing Examples

### DHM Insulation support.

The fire-protection-tested metal insulation support for fire-resistant insulating boards.



#### Advantages

- Achieves fire resistance of F 120 so it can be used where there are fire resistance requirements.
- Use with DTM 80 plate for soft insulating materials (available separately)
- The simple hammer-set installation for quick installation.
- The shaft design enables setting in aerated concrete without pre-drilling - saves time!
- DHM A2 (1.4301) for wet and exterior applications.

#### Building Material

- Aerated concrete blocks and reinforced aerated concrete panels ACC
- Concrete
- Perforated sand-lime brick KSL
- Solid brick Mz
- Solid sand-lime brick block KS
- Vertically perforated brick

#### Certifications



### HV 36 Insulation.

Zinc plated insulation discs combined with a screw for compression-resistant insulating boards.



#### Advantages

- The very flat metal disc allows thin coatings to be applied to the fixed materials.
- The HV 36 punched is used with a 5 mm screw. This means that extremely compression-resistant insulating boards can be fixed in wood / wood materials.

#### Building Material

- Lightweight insulation boards

# Recommended Fixing Examples

## DuoTec 12 nylon toggles for high loads in all panel building materials.



### Advantages

- Save up to 50% Installation time.
- For use with wood screws, hooks and metric threads.
- Glass fibre-reinforced plastic with a metal framework.
- DuoTec 12 allows the toggle to handle high tensile and transverse loads in all panel building materials.
- The soft grey nylon surface distributes the load over the panel surface, minimising any weakening of the supporting building material.

### Building Material

- Gypsum plasterboard / fibreboard
  - OSB boards, chipboard & MDF sheets
  - Plastic boards
  - Hollow blocks made from concrete
- Also works in: Solid materials, such as concrete and wood

## DuoPower: the first plug that automatically adapts to the substrate.

Superior performance in all building materials.



### Advantages

- Improved expansion for the best load values in solid and hollow building materials.
- Intelligent, self activating functions; expansion, folding and knotting depending on the type of substrate.
- You can 'feel' when the plug is set correctly.
- The serrated, anti-rotation features stops the plug from rotating.
- Anchorage depth of plugs: 6 x 50, 8 x 65 and 10 x 80 means they are especially suited to fixing in hollow building materials, aerated concrete and to bridge plaster.

### Building Material

- Concrete / Solid brick
- Solid brick made from lightweight concrete
- Aerated concrete
- Hollow blocks made from lightweight concrete
- Vertically perforated brick / Perforated sand-lime brick
- Plasterboard
- Gypsum plasterboard / gypsum fibreboards
- Solid panel made from gypsum

## FNA II: the easy installation hammer-set anchor for multiple fixings

Installation-friendly Hammerset anchor for multiple fixings.



### Advantages

- Simple hammer-set installation and a short processing times
- The short anchor depth prevents reinforcement hits for fast installations.
- The expansion clip guarantees a secure hold when placed in the drill hole and prevents it falling out during overhead installations.
- The shaft guarantees a high load bearing capacity, offering an extremely high level of safety.
- The range of different head types allows for the fixing of wide ranging fixtures, and for the ideal adaptation to suit multiple applications.



### Building Material

- Concrete C12/15 to C50/60, cracked, for multiple fixings of non-structural applications
- Solid sand-lime brick
- Natural stone with dense structure
- Prestressed hollow-core concrete slabs

### Certificates



ETA-06/0175  
Multiple use for non-structural applications in concrete



## PowerFast high performance screw for use in hard or soft wood.

The wood connector screw with TX star recess drive and full thread.



### Advantages

- The PPF-PT ZPF wood connector screw with pan head, cylindrical underhead, TX star recess drive and full thread is ideal for the screwing of timber connectors: brackets and joist hangers made from metal.
- Special head shape tailored to the standardised hole diameters of the timber connectors.
- The TX star recess drive enables top force transmission with maximum bit stability.
- The unique Power-Fast thread reaches into the screw tip and ensures fast bite.
- ETA provides added safety.

### Building Material

- Wooden materials
- Timber connectors

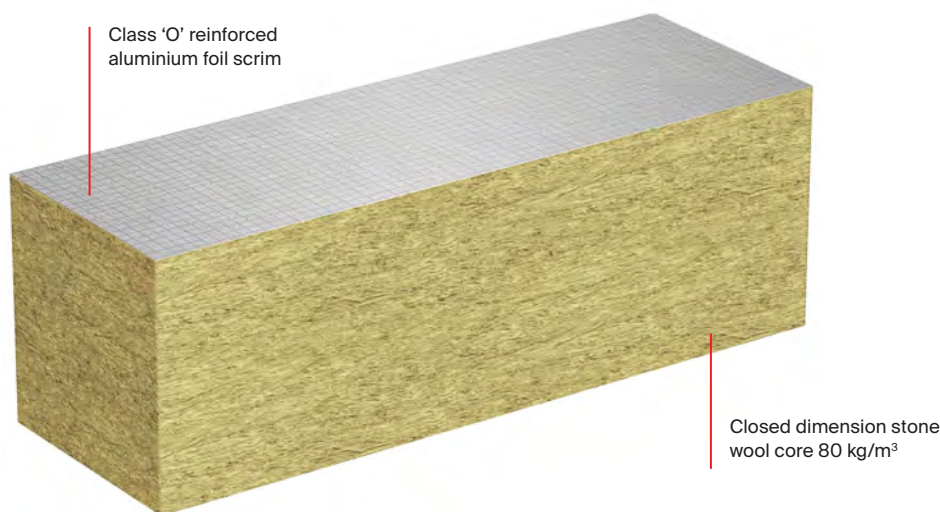
### Certificates



ETA-11/0027 for Screws for use in timber constructions

# Closed state Cavity Barriers

## FCFcl Cavity Clad.



### Performance

- FCFcl Cavity Clad comprises of an 80kg/m<sup>3</sup> one piece closed dimension stone wool core.
- The product is encased with an aluminum foil face which provides class 'O' rating and exhibits excellent resistance to smoke.
- The FCFcl Cavity Clad provides a resilient lateral compression which is required to ensure a tight fit.
- Tested BS 476 & EN 1366-4 the FCFcl has been classified to EN 13501-2 and bears the CE mark. **Designed to be used in ceiling cavity, slab edge or under floor installations.**

### Advantages

- GWP of 0% Global Warming Potential.
- ODP of 0% Ozone Depletion Potential.
- Contributes to green building.
- Cavities up to 450 mm.

### Technical Data

FCFcl Cavity Clad closed state cavity barrier				
	Code:	Slab Size mm	Thickness mm	Fire Resistance Classification EN 1366-4 & EN 13501-2
<b>Type</b>				
FCFcl 75	546210	1200x600	75	EI30
FCFcl 100	53046	1200x1000	100	EI60
FCFcl 120	568148	1200x1000	120	EI120
FCFcl 1200	546209	1200x1200	100	EI60

### Technical Data

Multi Purpose Bracket & Aluminium Foil Tape			
	Code:	Dimensions	Description
<b>Type</b>			
Multi Purpose Bracket 230	563201	230 x 25 x 1	A2 stainless steel fixing bracket
Multi Purpose Bracket 390	551868	390 x 25 x 1	A2 stainless steel fixing bracket
Multi Purpose Bracket 500	551954	500 x 25 x 1	A2 stainless steel fixing bracket
Multi Purpose Bracket 600	570346	600 x 25 x 1.5	A2 stainless steel fixing bracket
Aluminium Foil Tape	558505	45000 x 100	45m roll 100 mm aluminium foil adhesive tape

### Certification



ETA-17/0448  
0843-CPR-0361

BS EN1366-4: 2006

BS EN ISO 10140-3 : 1995

BS EN 1026



# FCFcl Cavity Clad installation details

**Note installation instructions:** FireStop material must be installed in accordance with detailed instruction or the approved system.

## Preparation

- Enable access or suitable working platform.
- Ensure that all surfaces are free from loose debris and contaminants.
- Mark positioning of barrier on structure according to the building design.

## Storage & disposal

- FCFcl Cavity Clad is not affected by the outdoor environment.
- However, for long term storage and ease of installation it is recommended that it should be stored in dry conditions.
- For a copy of the health and safety details refer to the fischer MSDS sheet.

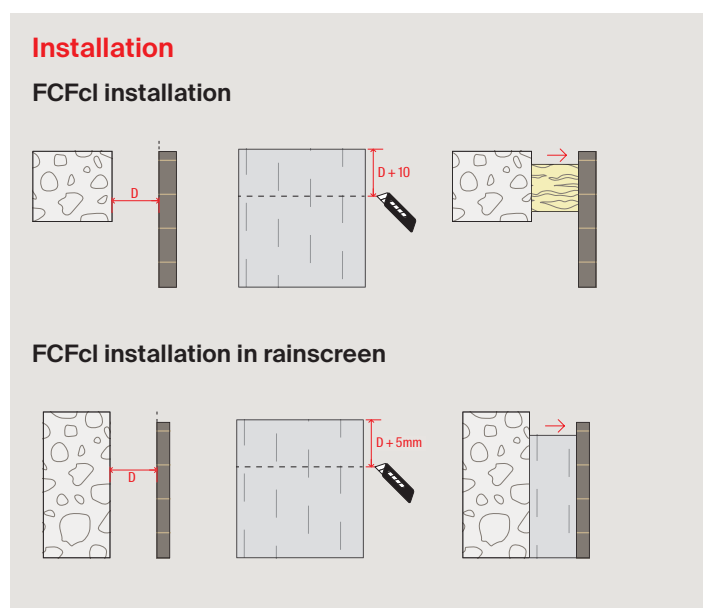


All joints sealed on the foil side with appropriate aluminium tape.

## Installation Instructions for solid structure & light weight framing system application:

1. Position the fischer Multi Purpose Bracket in required location and using an suitable anchor, attach firmly to substrate, at maximum 600 mm centres C/C.
2. Impale the fischer FCFcl Cavity Clad on to Multi-Purpose Bracket at mid height.
3. FCFcl Cavity Clad should not penetrate through complete barrier.

**Note:** The FCFcl Cavity Clad must be installed with a Min. 10 mm compression. It must be impaled onto the fischer Multi-Purpose Bracket, but only penetrate the barrier 50% of the way through.



# fischer FFB VS & FCFcL Information Request Form

▪ Project Name.

▪ Location.

▪ Approx. start date.

▪ Total cavity size

▪ Air gap required (25mm/50mm) FFB VS only.

▪ Required fire rating (i.e. 30/15, 60/60 etc.).

▪ Linear meters FcFcI (Closed state barrier).

▪ Substrate type FcFcI will be fixed to.

▪ Linear meters FFB VS (Open state barrier).

▪ Substrate Type FBB VS will be fixed to.

▪ Any additional information fischer should be made aware of i.e. downpipes running externally etc.

Your Name & Contact Details:

Thank you for completing the information request form. A member of our FireStop Team will get in touch at their earliest opportunity once they have received the form.

# fischer Façade Systems

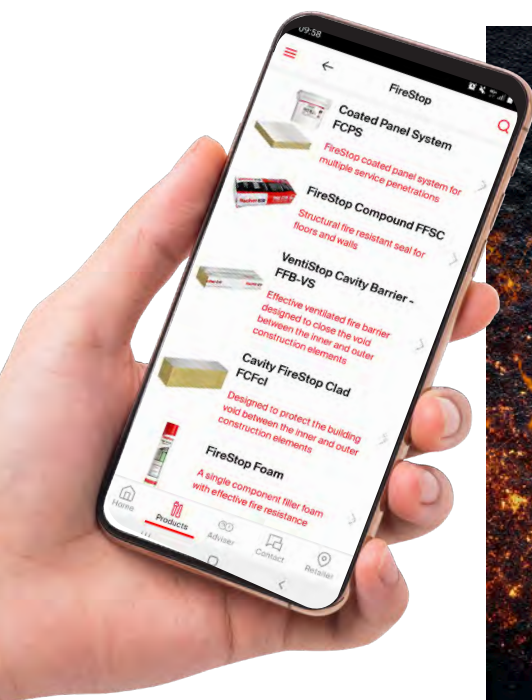
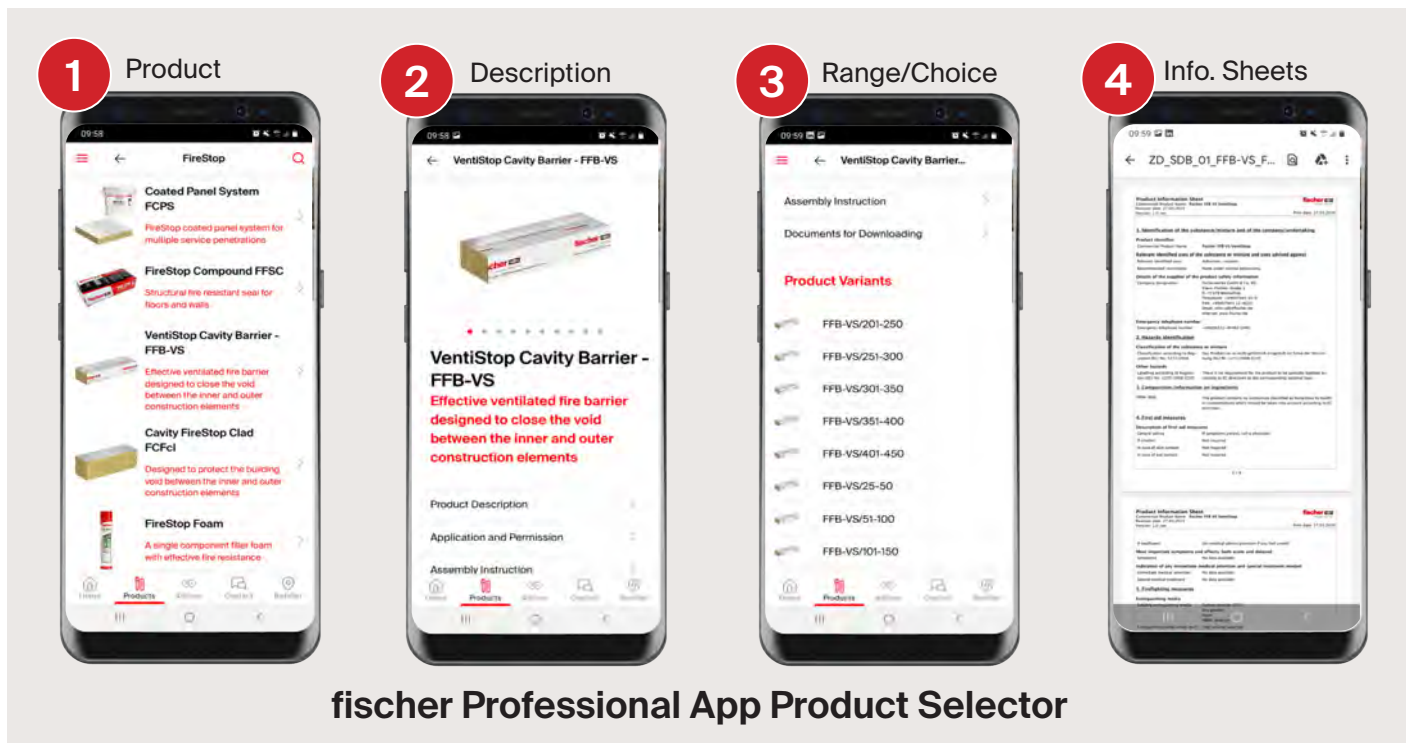


Technical innovations, as well as increasing customer requirements are driving building services engineering. With our comprehensive range of services, we are able support planners and contractors worldwide in all construction phases - from consulting and dimensioning, approval procedures, installation and logistics planning to on-site instruction such as:

- Structural pre-calculations for façade systems and panels
- U-value calculation with the influence of the substructure
- Online rain screen façade advisor for system selection
- 3D finite element analysis subframe elements
- Project specific CAD and BIM detail drawings
- Machinery service for drilling and introductions
- Prefabrication & customized solutions
- CPD Presentations
- Site visits, jobsite trainings
- Expert reports
- Pull-out testing
- Advice on the selection of the right system components
- Support with licensing procedures
- Preparation and organization of various trainings, meetings, seminars etc.
- Support with marketing material
- Sharing international and local partner and customer network

# fischer Professional App

The digital solution for the office or construction site.



# fischer Training certification.

## fischer Training

Fire protection seminars with certificate for professionals. Show your competence. Become a trusted specialist of your work!

- Do the right thing quickly and safely
- Competently assess legal issues and resolve them

We will show you the options for the individual systems, tips and tricks for handling, and give you a clear, competitive advantage.

We will bring you and your employees up-to-speed in preventative fire protection.

- Basic introduction to fire protection
- Model building codes
- Fire testing standards
- Product selection criteria
- Trade and Application areas
- Practical installations

## Locations and dates

Please contact your fischer representative for further details on course dates. The entire range of knowledge is shared with you by fischer fire protection experts.



# Certificate.

01th November 2022, Waldachtal

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has successfully demonstrated a level of competence in:

## „The correct installation of fischer FireStop products“

**Content of the course:**

- FCPS Coated Panel & FIAM Acoustic Mastic
- FIPW Pipe Wrapp
- FFC Collar
- FFRS Silicone Sealent
- FFPC Compound
- FIP Pillow
- PBB FireStop Block
- FBS Graphite Foam

And agrees to adhere to the fischer FireStop Professional Ethics (FFPE).\*

02E/2022/FS/001

**Marion Leipersberger**  
Product Manager  
FireStop

\*This certificate is valid for one year from the date of issue.

## SystemTec Contacts

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