

Intumescent & Fire Protection Materials

Tenmat Intumescent Technology

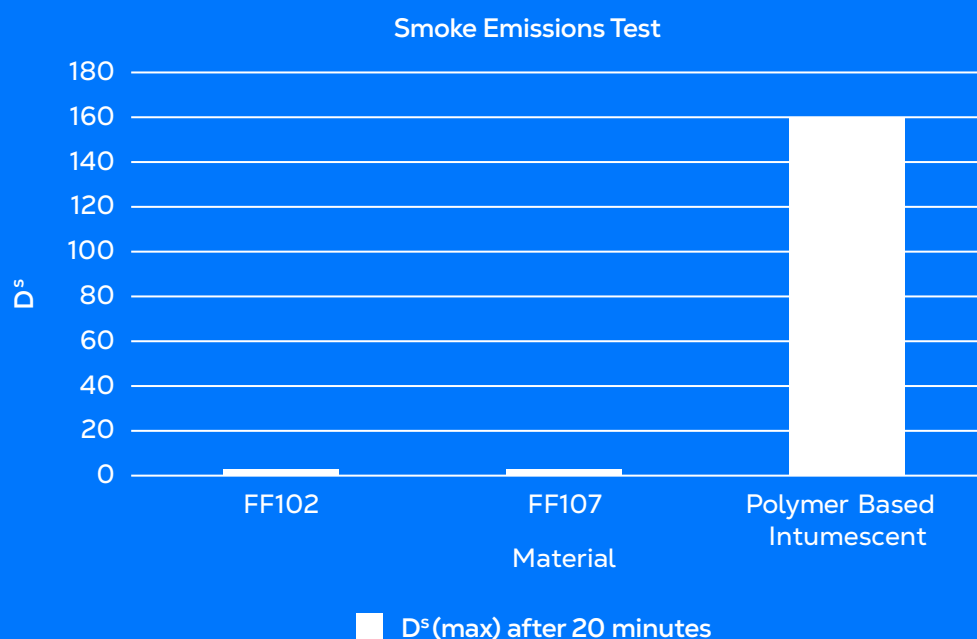
Low Smoke - Zero Halogen Intumescent Materials

Smoke Kills More People Than Fire

Tenmat has a fundamental belief, as do all firefighting professionals, that the smoke emissions of construction materials of a building should be minimised. It is therefore a great irony that many intumescent passive fire materials on the market are based upon high smoke emitting polymer compounds, therefore the materials which are designed to prevent the spread of fire and smoke actually create dense smoke.

Smoke generated by halogens can be harmful or even lethal to human health. Tenmat's primary intumescent materials have been 3rd party tested show that they are "Low Smoke" emitting and produce a "Zero" classification of halogens in a fire situation.

Tenmat Intumescent Technology vs. Polymer Based Intumescent



- D⁵ (max) is the measurement of specific optical density.
- Tenmat's primary materials have extremely low organic contents and offer low smoke emissions.
- Current legislation is working towards ever lower smoke emissions to save the lives of residents and fire fighters.
- Ask Tenmat for the "low smoke" options for your requirements.
- Low Smoke - Exova Lab Tested according to BS EN45545-2

Working Life

Tenmat Intumescent Materials have a typical working life of 60 years (depending on climatic conditions).

Intumescent Materials

Intumescent Sheet Materials

FF102 4
Rigid intumescent material with high expansion and stable char structure

FF102B 5
Rigid intumescent material suited for air transfer grille applications

FF107 6
Flexible intumescent material with exceptional expansion and speed of reaction

FF160 7
Industry leading performance with extreme expansion and pressure generation

Intumescent Rolls

FF104E 8
Thin and flexible intumescent materials available in rolls / cut shapes

Intumescent Formed Shapes

FF108 9
Low expansion compressible intumescent suited to vacuum form into shapes

FF109 10
Medium expansion compressible intumescent suited to vacuum form into shapes

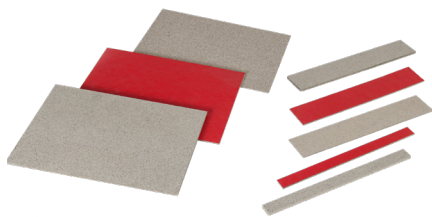
Non-Intumescent Formed Shapes

FF120 & FF130 11
Non-intumescent fire resistant materials suited to vacuum form into shapes

Typical Applications 12-19

- Electrical Service Penetrations
- Mechanical Service Penetrations
- Ventilation
- Open State Cavity Fire Barriers
- Lighting

FF102



Tenmat FIREFLY 102 is a rigid intumescent material that possesses excellent pressure generation and expansion performance. It is a halogen free graphite based intumescent material which produces a particularly stable and resilient insulating char structure during and after expansion.

Tenmat FIREFLY 102 is available in a variety of thicknesses, with or without self adhesive or PVC coatings. It can be supplied in sheets up to 2150 x 1050 mm, or alternatively it can be slit to a variety of widths and lengths within those dimensions.

Key Applications

- Open State Cavity Barriers
- Door and Glazing Applications
- Ironmongery Protection
- Firestop Systems for Ventilation
- General Gap Sealing

Key Features

- High Free Expansion
- Uni-directional expansion
- Stable char structure : offers increased fire rating performance
- Rigid material

Standard Dimensions

Standard Dimensions

Thickness (mm)	1.7	2	3	4	5	6*
Thickness with self adhesive (SA) (mm)	2	2.3	3.3	4.3	5.3	6.3
Thickness with PVC coating & SA (mm)	2.3	2.6	3.6	4.6	5.6	6.6

* Thicknesses greater than 6 mm and intermediate thicknesses can be available upon request. Please contact Tenmat for enquiries.

Properties

Property	Units	Typical Value
Density	kg/m ³	900
Tensile Strength	MPa	4
Free Expansion Ratio		26:1
Activation Temperature	°C	180
Max. Pressure Generation	Bar	16.0
Third Party Approval (AbZ)	Zulassungsnr	Z-19. 11-1033
Typical Working Life		60 years*
Durability	EOTA TR024	Type X

*Based on UK climatic conditions.

FF102B



Tenmat FIREFLY 102B is a rigid intumescent material that possesses good pressure generation and mid-range free expansion performance.

Tenmat FIREFLY 102B is most commonly used as the intumescent core within air transfer grilles to maintain fire compartmentation in timber fire doors.

Key Applications

- Air Transfer Fire Grilles
- Door and Glazing Applications
- Ironmongery Protection
- General Gap Sealing

Key Features

- Mid-Range Free Expansion
- Rigid material
- Used in air transfer grilles
- Extremely stable char structure

Standard Dimensions

Standard Dimensions

Length (mm)	2150
Width (mm)	1050
Thickness (mm)	2.3
Self adhesive (SA) (mm)	2.6
PVC coating & SA (mm)	2.9

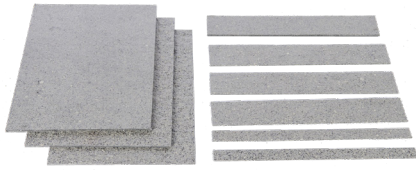
*Tenmat FIREFLY 102B is available with or without self adhesive backing or PVC coating. It can be supplied in sheets with maximum dimensions of 2150 x 1050 mm, or alternatively it can be slit to a variety of widths and lengths within those dimensions or slotted to build up into an air grille matrix.

Properties

Property	Units	Typical Value
Density	kg/m ³	900
Tensile Strength	MPa	3
Free Expansion Ratio		17:1
Activation Temperature	°C	180
Max. Pressure Generation	Bar	14.0
Third Party Approval (AbZ)	Zulassungsnr	Z-19. 11-1033
Typical Working Life		60 years*

*Based on UK climatic conditions.

FF107



Tenmat FIREFLY 107 is an exceptionally powerful intumescent which combines fast reaction with high expansion and pressure generation. Tenmat FIREFLY 107 produces a solid char of good integrity.

Tenmat FIREFLY 107 is available in a variety of thicknesses in sheets up to 2150 x 1050 mm, or alternatively it can be slit to a variety of widths and lengths within those dimensions. The material can be supplied with self adhesive backing; please speak to Tenmat if this is required.

Key Applications

- Open State Cavity Fire Barriers
- Penetration Seals
- Pipe Wraps
- Duct Fire Wraps
- Fire Collars
- Electrical Socket Protection
- Gap Sealing

Key Features

- Exceptional free expansion
- Fast reaction
- High pressure generation
- Flexible

Standard Dimensions

Standard Dimensions

Standard Dimensions	3	4	5	6*
Thickness (mm)	3	4	5	6*
Width (mm)	1050	1050	1050	1050
Length (mm)	2150	2150	2150	2150

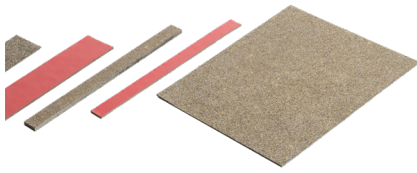
*Larger thicknesses above 6 mm may be available upon request. Please contact Tenmat for enquiries

Properties

Property	Units	Typical Value
Density	kg/m ³	630
Free Expansion Ratio		30:1
Activation Temperature	°C	180
Pressure Generation Expansion	Bar	17.0
Third Party Approval (AbZ)	Zulassungsnr	Z-19. 11-1726
Typical Working Life		60 years*
Durability	EOTA TR024	Type X

*Based on UK climatic conditions.

FF160



Tenmat FIREFLY 160 is an industry leading intumescent material developed to provide outstanding expansion characteristics combined with exceptionally solid and durable char structure.

Tenmat FIREFLY 160 retains fast reaction and high pressure generation characteristics whilst also offering a high level of controlled multi-directional expansion. The resulting performance is ideally suited to the more onerous European (EN) Fire Testing of Pipe Penetrations where Uncapped/Uncapped (U/U) testing is required.

Key Applications

- Service Penetration seals
- Fire Wraps
- Fire Collars
- Fire Curtains
- Construction Joint Seals
- Gap Sealing Applications

Key Features

- Extreme Free Expansion : offers increased fire rating performance
- Solid char structure
- Fast Reaction
- Multi directional expansion
- Two stage expansion
- Flexible Material <4mm thickness
- Increased Rigidity >4mm thickness

Standard Dimensions

Standard Dimensions

Thickness (mm)	2mm, 3mm, 4mm, 5mm*, 6mm*
Max Width (mm)	1050
Max Length (mm)	2150

*For thicknesses of 5mm and 6mm, flexibility is limited. Please contact Tenmat for enquiries.

Tenmat FIREFLY 160 is available in a variety of standard thicknesses from 2 mm to 4mm with 5mm and 6mm* available on request. Sheets are available up to 2150 x 1050mm, or alternatively it can be slit to a variety of widths and lengths within those dimensions. The material can be supplied with self adhesive backing or PVC coatings.

Properties

Property	Units	Typical Value
Density	kg/m ³	>1000
Free Expansion Ratio	X:1 Volume	>35:1 60:1
Activation Temperature	°C	ca. 175
Pressure Generation	Bar	>15

FF104E



Tenmat FIREFLY 104E is a dark grey intumescent paper supplied in rolls.

It generates high expansion and pressure generation when exposed to fire or heat.

FIREFLY 104E can be supplied in full width rolls or slit to narrower widths.

The very low thickness and easy cutting characteristics make it ideal as a thin intumescent gasket material where space is a premium.

Key Applications

- Fire Door and Glazing Seals Door Hardware
- Ironmongery Protection Damper Seals
- Electrical Socket Protection
- Gap Sealing
- Gasket applications

Key Features

- High free expansion
- Highly flexible
- Available in thicknesses as low as 0.5mm
- Supplied in rolls or sheets
- Excellent char structure

Standard Dimensions

Standard Dimensions

Standard Dimensions	No	Yes	No	Yes	No	Yes
Self Adhesive	No	Yes	No	Yes	No	Yes
Thickness (mm)	0.5	0.8	1	1.3	1.8	2.1
Width (mm)	560	560	1120	1120	1120	1120
Length (mm)	100	100	100	100	50	50

Tenmat FIREFLY 104E is supplied with or without self adhesive backing. It can be supplied in full rolls or alternatively slit to a variety of widths and roll lengths. The material is also suitable for gasket cutting.

Properties

Property	Units	Typical Value
Density	kg/m ³	750
Free Expansion Ratio		20:1
Activation Temperature	°C	200
Max. Pressure Generation	Bar	11.0
Third Party Approval (AbZ)	Zulassungsnr	Z-19. 11-1721
Typical Working Life		20 years*

*Based on UK climatic conditions.

FF108



Tenmat FIREFLY 108 is a low density, compressible intumescent material which exerts relatively low pressure and free expansion characteristics. The low free expansion ensures an extremely solid and stable char structure is produced.

The material can be vacuum formed into a variety of shapes as well as being produced in sheet form.

Tenmat FIREFLY 108 can be supplied in sheet form up to 610 x 1000 mm or alternatively cut into strips within those dimensions and also encapsulated in polythene if desired. The material can also be vacuum formed into a variety of shapes to suit client requirements and specification which allows the expansion direction to be controlled.

Key Applications

- Expansion Joint Seals
- Linear Gap Seals
- Cable Basket Protection
- Fire Stop Blocks

Key Features

- Minimal free expansion
- Compressible
- Low expansion pressure
- Solid and stable char structure
- Can be vacuum formed into shapes

Standard Dimensions

Standard Dimensions

Thickness (mm)	10	20	30	40	50	60
Width (mm)	610	610	610	610	610	610
Length (mm)	1000	1000	1000	1000	1000	1000

Greater thickness through multiple layering is possible.
Various vacuum formed shape designs can be manufactured.

Properties

Property	Units	Typical Value
Density	kg/m ³	190
Free Expansion Ratio		2:1
Activation Temperature	°C	180
Pressure Generation Expansion	Bar	5.0
Typical Working Life		60 years*

*Based on UK climatic conditions.

FF109



Tenmat FIREFLY 109 is a highly compressible intumescent material which expands to form a resilient and stable char. The material is available in sheets or alternatively in formed shapes.

Tenmat FIREFLY 109 is a lower density material with mid-range expansion characteristics; this allows the material to function in a controlled manner without the need for additional restraints.

Tenmat FIREFLY 109 is available in a variety of standard sizes. It can be supplied in 610 x 1000 mm sheets with 10–60 mm thickness, or alternatively can be cut into strips of a defined length and width, within the sheet dimensions, or vacuum formed into various shapes. Tenmat offers all these options and sizes as standard to suit customer requirements.

Key Applications

- Service Penetration Seals
- Pipe Fire Sleeves
- Vent Duct Fire Sleeves
- Fire Rated Light Covers
- Downlight Penetration Seals

Key Features

- Mid range free expansion
- Highly compressible
- Expands in controlled manner
- Can be vacuum formed into shapes

Standard Dimensions

Standard Dimensions

Thickness (mm)	10	20	30	40	50	60
Width (mm)	610	610	610	610	610	610
Length (mm)	1000	1000	1000	1000	1000	1000

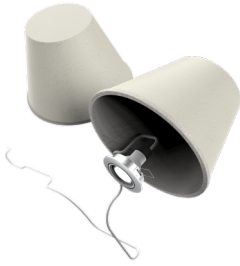
Greater thickness through multiple layering is possible.
Various vacuum formed shape designs can be manufactured.

Properties

Property	Units	Typical Value
Density	kg/m ³	200
Free Expansion Ratio		5:1
Activation Temperature	°C	180
Thermal Conductivity ISO 8301:1991 and BS EN 12667:2001	W/mK	0.0343
Third Party Approval (AbZ)	Zulassungsnr	Z-19.11-1735
Typical Working Life		60 years*
Durability	EOTA TR024	Type X

*Based on UK climatic conditions.

FF120 & FF130



Tenmat FIREFLY 120 and FIREFLY 130 are exonerated mineral fibre based fire resistant materials which are used to reinstate fire and acoustic ratings, and improve airtightness.

FF120 offers fully non-combustible, A1 Reaction to Fire classification performance.

FF130 offers added flexibility, allowing rolling/folding of shapes to ease fitting. Both materials are available vacuum formed into shapes.

Key Applications

- Lighting Protection Covers
- Electrical Socket Penetrations

Key Features

- Fire resistant
- Euroclass A1 (FF120)
- Improves airtightness and acoustic insulation
- Contributes to energy saving
- Vacuum formed shapes

Properties

Property	Units	FF120	FF130
Density	kg/m ³	202	164
Ignition Loss @ 1000°C	%	6.1	17.4
Linear Shrinkage @ 1000°C	%	1.8	8.4
Flexural Strength	MPa	3.1	1.1
Reaction to Fire Classification EN 13501-1 (Euroclass)		A1	-
Glow Wire and Needle Flame testing		Pass	Pass

Electrical Service Penetrations



Switch Box Covers

Tenmat FIREFLY 109 Fire and Acoustic Switch Box Covers are a cost effective and simple solution for protecting electrical switch and socket boxes when fitted in fire and acoustic rated walls. The intumescent material fully encases the socket to provide an acoustic seal but in a fire situation it expands and seals the hole made for the sockets to limit fire spread for up to 120 minutes.



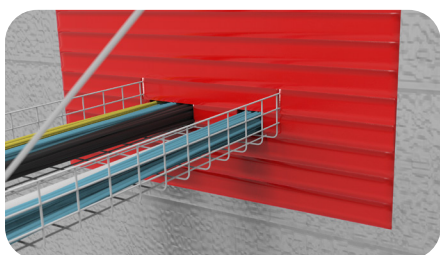
Switch Box Inserts

Tenmat FIREFLY 130 Fire Rated Socket/Switch Box Inserts are a cost effective and simple fire and acoustic solution for protecting electrical switch and socket boxes when fitted in fire and acoustically rated walls. The fire resistant material fully lines the socket to provide a fire seal that limits the spread of fire within and through the partition.



Cable Basket Sleeves

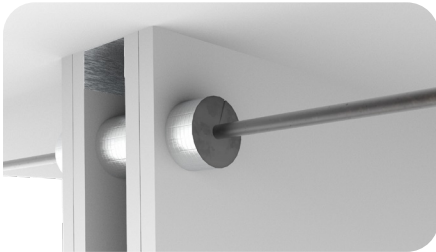
Tenmat's FIREFLY 108 Cable Basket Fire Sleeves are designed to speed up and simplify the firestopping of cable trays or baskets. The compressible and fully intumescent material provides an effective fire and acoustic seal around both the cables and the cable basket itself. The Sleeves have been fire tested to BS 476: Part 20 and acoustically tested in accordance with BS EN ISO 140-3:1995 and BS EN ISO 717-1:1997.



Fire Stop Block

Tenmat's FIREFLY 108 Fire Stop Block is a unique, compressible and fully intumescent alternative to fire pillows/intumescent pillows. The Fire Stop Block is supplied in 1 metre lengths and can be cut to size on site. This ensures maximum flexibility and minimum wastage compared to traditional fire pillows.

Mechanical Service Penetrations



Pipe Fire Sleeves

The FF109 Pipe Fire Sleeves (PFS) are a range of passive fire protection penetration seals designed to firestop insulated metal and combustible plastic pipes. The Fire Sleeves offer Fire, Acoustic, Thermal and Vapour seal performance to a range of pipes passing through various wall or floor constructions.

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



FIREFLY Oversleeve

The Tenmat FIREFLY OverSleeve is a universal, one-product-fits-all solution for the firestopping of combustible/plastic pipes and insulated non-combustible/metal pipes.

The thin and flexible intumescent is quickly and simply wrapped directly around the pipe or over the top of pipe insulation without the need to cut back, ensuring that thermal and vapour seal performance is maintained. The red branded foil can be easily checked and identified on site to confirm that firestopping is in place.

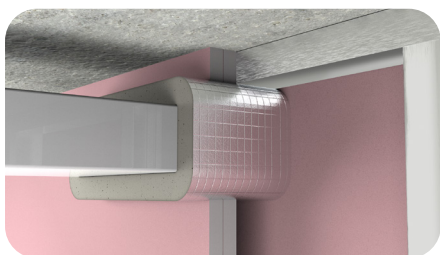
Ventilation



Low Profile Vent Duct Fire Sleeve LP

The FF109 Vent Duct Fire Sleeve Low Profiles (VDS LPs) are a family of CE Marked fire penetration seals designed to firestop PVC ventilation ducts/pipes when installed through fire rated constructions. The unique vacuum formed intumescent material design ensures that the expansion direction of the material crushes and seals the ducting in a fire situation without the need for any additional support or metal sleeving.

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



Vent Duct Fire Sleeve

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

The unique vacuum formed intumescent material design ensures that the expansion direction of the material crushes and seals the ducting in a fire situation without the need for any additional support or metal sleeving. The increased thickness of the material allows for greater compression/movement options.



Vent Duct Oversleeve For Semi Rigid Ducting

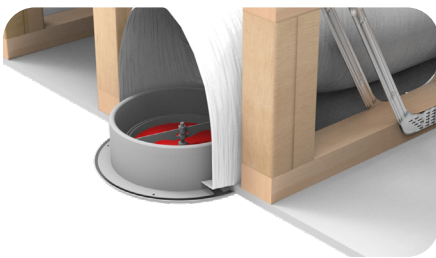
Tenmat's Vent Duct OverSleeve offers 120 Minutes Fire Rating to Semi Rigid Ducting. The low profile (4 mm thick) OverSleeve is supplied flat and simply wrapped around the ducting and resealed with the reinforced foil backing layer. Its design allows the product to be retrofitted.

Ventilation



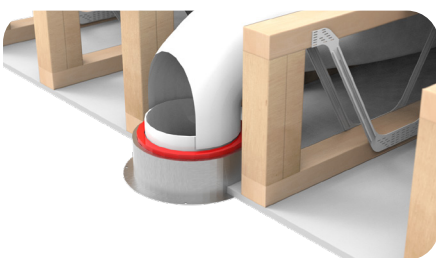
Air Transfer Grilles

Tenmat Firefly 102B material is ideally suited to Air Transfer Fire Grille applications. The pre-slotted intumescent material is available in a range of lengths to enable a grille matrix to be constructed. The resulting air grille can maintain ventilation within a building whilst also maintaining the fire rating of fire resistant elements for up to 1-hour Fire Resistance. Tenmat Firefly 102B Air Transfer Grilles are manufactured from a matrix of slatted intumescent strip material.



Fire Rated Ceiling Air Valves

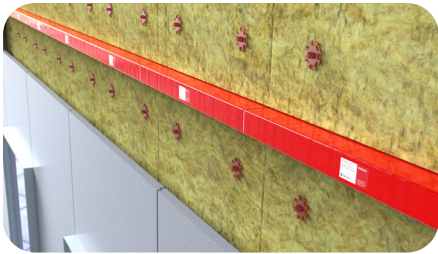
Tenmat's Fire Rated Air Valves are a unique and cost effective fire rated solution where recessed ceiling air valves are to be installed in fire rated floor/ceiling constructions. In a fire situation, the integral intumescent material rapidly expands to seal off the air valve to help maintain the fire resistance rating of the floor/ceiling. This limits the risk of fire and heat spread throughout the building.



Ceiling Fan Firestop

The Tenmat Ceiling Fan Firestop has been developed to provide fire protection for penetrations made in floor/ceiling systems for 100mm and 125mm ceiling fans. In a fire situation, the intumescent lining in the product expands to seal off the opening in the ceiling and creates an effective fire barrier and therefore reinstates the fire rating of the floor/ceiling.

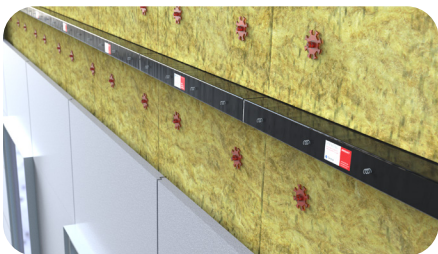
Ventilated Cavity Fire Barriers



VFB Plus - Up to 44mm air gaps

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

The VFB Plus then leaves a maximum 44mm air gap to allow for drainage and maintain ventilation in normal use. In a fire situation the intumescent seal rapidly expands to seal off the air gap and prevent vertical fire spread within the external wall.



VFB 60/60 - for 25mm air gaps

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

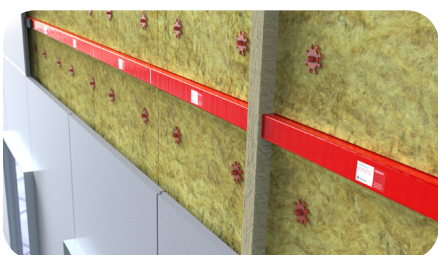
The VFB 60/60 then leaves a maximum 25mm air gap to allow for drainage and maintain ventilation in normal use. In a fire situation the intumescent seal rapidly expands to seal off the air gap and prevent vertical fire spread within the external wall.



VFB 120/120 - for 25mm air gaps and higher fire ratings

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

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



NVFB Non-Ventilated Fire Barrier

Tenmat NVFB Non-Ventilated Fire Barriers provide up to 2 hours fire protection for vertical external wall cavities. The NVFB Non-Ventilated Fire Barrier is used for preventing fire penetration to adjoining compartments within external cavities in a vertical situation for specified periods of up to 2 hours. They are manufactured to suit cavity widths and are held in place by a combination of compression and multi-purpose brackets.

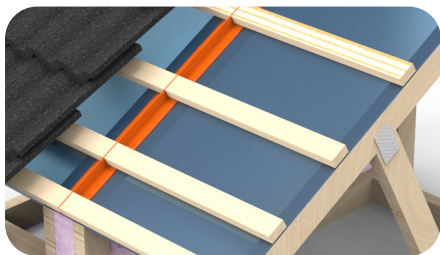
Ventilated Cavity Fire Barriers



FF102/50 & FF102/25 - To suit from 25mm to 50mm cavities

Tenmat's FF102/25 and FF102/50 Ventilated Cavity Fire Barriers, are manufactured from a low smoke zero halogen high expansion intumescent material. They are designed to reinstate fire resisting performance to external wall cavities that are required to be ventilated (open-state) in non-fire conditions.

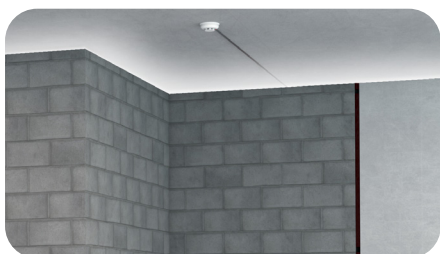
They are manufactured from a rigid intumescent material allowing them to be provided in a strip format. In the event of a fire the intumescent material will expand to close the external wall cavity, providing effective fire resistance, for integrity and insulation for up to 120 minutes depending upon the construction of the external walls.



RTF Roof Tile Firestop

Tenmat's RTF and RRF Roof Tile/Ridge Firestops are manufactured from low smoke zero halogen intumescent material and are designed to provide fire resisting performance between roof/ridge tiles and the party walls or spandrel panels below the roof covering, which separate different properties within roof spaces or provide lines of compartmentation.

Fire Rated Linear Joints - Non-ventilated



Linear Gap Seals

Tenmat's FF108 Linear Gap Seals are fully intumescent linear firestop seals tested to EN Standards. The durable seals are installed under compression and can accept further movement. They are equally suited to both vertical and horizontal joints. The seals offer up to 4 hour (EI240) fire rating for joints in fire rated walls and floors.

Lighting



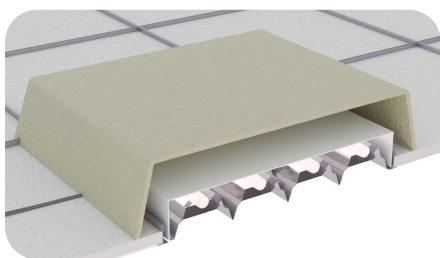
Downlight Fire Hood

Tenmat's Downlight Fire Hoods are manufactured from halogen free intumescent material and are designed to reinstate the fire and acoustic performance of ceilings and/or floor constructions when penetrated by downlighters or blank openings if lights are removed for maintenance. The DFH is made from an intumescent flexible mineral wool material allowing it to be installed through the hole cut into the ceiling membrane, before springing back into shape to cover the light fitting, whilst allowing enough space between the hood and the light fitting to allow for normal operation of the light fitting.



Loft Covers

The most recent fire safety requirements call for recessed spotlights to be protected from contact with all kinds of insulation and other combustibles. To meet these requirements, Tenmat has developed the FF130/FF120RF Loft Covers. Thermal insulation must be installed to ever increasing thicknesses and recessed downlights become completely buried. It is no longer acceptable to install insulation without protecting downlights, or use non-accredited products such as lengths of pipe, or upturned flowerpots.

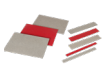

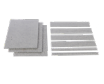







Luminaire Covers

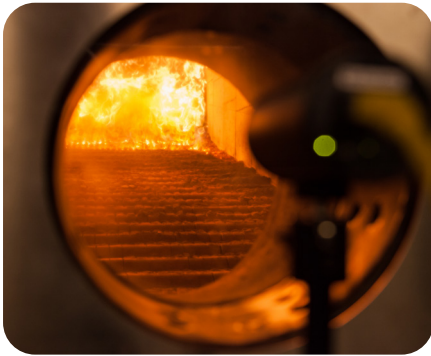
Tenmat FF130 Luminaire Covers are fire rated covers or fire canopies designed to fire rate recessed luminaire or fluorescent module fixtures and reinstate the performance of ceilings when penetrated by recessed lights. They help to maintain the fire protection performance of the element protected by the ceiling – preventing or delaying the spread of fire.

The covers are available to suit all common 600 x 600 mm and 1200 x 600 mm fixtures. The covers are ready to install, with no assembly required, and can even be retrofitted into position due to their flexible and durable design.

Application Types

	Intumescent Sheet Materials				Intumescent Rolls	Intumescent Formed Shapes	Non-Intumescent Formed Shapes	
								
Applications Types	FF102	FF102B	FF107	FF160	FF104E	FF108	FF109	FF120 & 130
Sheets Form	■	■	■	■	■	■	■	■
Vacuum Formed	-	-	-	-	-	■	■	■
Ventilated / Open State Cavity Fire Barriers	■	-	■	-	-	-	-	-
Construction Joints	■	-	■	-	■	■	-	-
Fire Seal Door & Glazing Applications	■	■	-	■	■	-	-	-
Air Transfer Grilles	-	■	-	-	-	-	-	-
Damper Seals	■	■	■	-	■	-	-	-
Doors Hardware & Ironmongery Protection	■	-	■	■	■	-	-	-
General Gap Sealing	■	■	■	■	■	■	-	-
Electrical Socket Protection	-	-	■	-	■	-	■	■
Pipe Fire Sleeves	-	-	■	■	-	-	■	-
Downlight Covers	-	-	-	-	-	-	■	■
Ventilation Sleeves	-	-	■	-	-	■	■	-

Manufacturing Capabilities



Tenmat's range of Intumescent Materials are all developed and manufactured at our headquarters in Manchester, UK.

To meet tomorrow's needs for innovative solutions, Tenmat operates a state-of-the-art in-house R&D laboratory and continuously develops highest quality products.

Tenmat also has an in-house fire resistance test furnace that can test both horizontal and vertical samples. The furnace is also available to support customer product development projects.

Our manufacturing plant allows us to manufacture materials in sheet and strip form, as well as vacuum forming materials into 3D shapes to specific client or application specifications.

Age Testing & Durability

Tenmat carry out accelerated age testing following industry led test methodologies which combines our state of the art in-house laboratory test facilities along with third party testing.

Tenmat Intumescent Materials have been tested at intervals under accelerated ageing conditions to simulate in excess of typically 60 years under UK ambient conditions.

Tenmat Passive Fire Protection intumescent materials demonstrate stable behaviour over this simulated typical 60 year period with no deterioration in key properties and performance.

Tenmat's primary intumescent materials are also tested to the requirements of EOTA TR024 to assess durability. The durability of reactive materials may change significantly when exposed to specific climatic conditions.

Those tested achieved Type X performance which is the highest performance level possible. This means these reactive materials, components and products have been subjected to external conditions with exposure to weathering – rain, UV, high temperatures in summer, frost and frost-thaw in winter. This testing covers all other internal use conditions.

Intumescent & Fire Protection Materials



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