

FireBlox™

Non-Ventilated Cavity Barrier suitable for SFS

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The Grayson FireBlox™ Non-Ventilated Cavity Barrier has a market-leading A1 rated reaction to fire and is tested with SFS.

Manufactured from plain stone mineral wool, it provides effective fire resistance for integrity (E) and insulation (I) for up to 120 minutes (EI120) within external cavity walls. The exact level of performance will depend on the orientation of the FireBlox™ and the construction of the external walls.

FireBlox™ is foil faced and available in both cut-to-size pieces to suit the cavity width, and in full slabs. It can also be supplied with integral damp proof course if required to suit your specific project.

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

- ✓ FireBlox™ is a cavity barrier that can be used at the junction of compartment floors, compartment/ party walls, and around openings
- ✓ UL-EU 3rd party certification
- ✓ 100mm deep x 605mm wide x 1000mm long slab
- ✓ Foil faced as standard
- ✓ Optional integral DPC to prevent moisture migration
- ✓ Suitable for cavities up to 600mm
- ✓ For vertical and horizontal use
- ✓ Fire Resistance Classification to EN 13501-2
- ✓ A1 Reaction to Fire
- ✓ Fire Rated up to 120 minutes integrity and insulation (EI120)
- ✓ Tested for use in conjunction with masonry support brackets
- ✓ Tested with SFS systems with calcium silicate fibre cement boards
- ✓ No maintenance required after installation
- ✓ 5mm compression required



Approved Applications

Grayson FireBlox™ is a Non-Ventilated Cavity Barrier for vertical external wall cavities.
UL-EU Certificate - UL-EU - 01274 - EN

UL International Classification Report - 4790458385-1

Inner Leaf Substrate Type (facing cavity) with appropriate fire resistance	Outer Leaf Substrate Type (facing cavity) with appropriate fire resistance	Orientation	Insulation Type Within Cavity	To Suit Cavity Widths (in mm)	Compression Required	Minimum Thickness of FireBlox (mm)	Product Fire Resistance Rating		
							Integrity (E)	Insulation (I)	Classification (EI)
Rigid Walls - min. 100mm thick									
100mm Masonry or Concrete walls	100mm Masonry or Concrete walls	Vertical	None	10-200	5mm	100	120	120	120
150mm Masonry or Concrete walls	150mm Masonry or Concrete walls	Vertical	None	201-600	5mm	100**	120	30	30
SFS System with calcium silicate cement fibre board									
SFS System Walls*	150mm Masonry or Concrete walls	Vertical	75mm thick Rockwool DuoSlab	10-600	5mm	100**	120	30	30
SFS System Walls*	150mm Masonry or Concrete floor	Horizontal	75mm thick Rockwool DuoSlab	10-595	5mm	100**	120	60	60
Rigid Floors - min. 150mm thick									
150mm Concrete/ Masonry Floor	150mm Concrete/ Masonry Floor	Horizontal	None	10-100	5mm	100	120	120	120
150mm Concrete/ Masonry Floor	150mm Concrete/ Masonry Floor	Horizontal	None	101-200	5mm	100	120	90	90
150mm Masonry or Concrete floor	Masonry or Concrete	Horizontal	None	201-450	5mm	100**	120	30	30
150mm Masonry or Concrete floor	Masonry or Concrete Floor	Horizontal	None	451-595	5mm	100**	60	30	30
Rigid Floors with Masonry Support Brackets									
150mm Masonry or Concrete with masonry support brackets	100mm Masonry or Concrete	Horizontal	None	200	5mm	100**	120	120	120
150mm Masonry or Concrete with masonry support brackets	100mm Masonry or Concrete	Horizontal	None	201-450	5mm	100**	120	30	30

FireBlox™ can be supplied with an optional DPC layer for use with external masonry walls

*SFS system build up 135mm overall thickness, comprising 90mm Metsec C stud, clad internally with 2 x 15mm Knauf Fire Panel, clad externally with 1 x 12mm RCM Y-Wall and minimum 75mm Rockwool Duo Slab.

The supporting construction must be classified in accordance with EN13501-2 for the required fire resistance period.

**82mm thick option available.

Technical Information

Property	Units	Value
Reaction to Fire Classification EN 13501 - 1		A1

Sizes

Cavity Size (mm)	Product Width (mm) including 5mm compression	Orientation	Fitting Instruction Option	Barrier Support Type	No. of (brackets) fixings per metre	Minimum Bracket Centres (mm)	Face Fixed Fixing Centres (mm)
10-75	15-80	Vertical or Horizontal	A	MP Screw	N/A	N/A	250
76-600	81-605	Vertical or Horizontal	B	FB Bracket	2	500	N/A
200-450 (Masonry Support Brackets)	205-455	Horizontal only	C	FB Bracket	2	500	N/A

Note:

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

When using FireBlox™ with integral DPC, face fixing is not possible. Brackets must be used and can be cut to size as required.

Pre-Installation

The principal designer must approve the use of any cavity barrier. The whole construction of the external wall systems and components, along with the product's fire classification reports, must be taken into account, alongside any requirements in line with Building Regulations or NHBC Standards.

We are happy to discuss whether Grayson FireBlox™ would be suitable for your project. Please contact us with your details.

Installation

FireBlox™ should be installed in a continuous run. If this is not possible, details should be agreed with the principal designer or fire engineer.

FireBlox™ cavity barriers can be cut to length as required. Horizontal cavity barriers should be installed adjacent and tightly abutted to any vertical cavity barriers. The vertical cavity barriers should be installed first, and adjacent lengths must be tightly abutted together.

DPC is applied to the face of FireBlox cavity barrier to avoid thermal bridging caused by damp at the inner face of brickwork. In application the DPC should be installed using a suitable width membrane to overlap the FireBlox by a minimum of 25mm either side and is compression fitted between the FireBlox and masonry.

Non-combustible DPC maybe required because it is not exempt from the requirements in Regulation 7 of the Building Regs in relation to non-combustible materials.

FireBlox™ Fixing Brackets (FB) must not penetrate through the face of the cavity barrier. FireBlox™ Multi-Purpose Screws for direct fixing and FireBlox™ Screws to secure FB brackets must be purchased separately from Grayson.

FireBlox™ Fixing Brackets must be installed with the spike inserted centrally (horizontally) to the rock mineral wool. There is no need to use tape over the joints between FireBlox™.

FireBlox™ needs to be installed following the instructions below and must not be penetrated by any mechanical or electrical services.

General Considerations For The Principal Designer

FireBlox™ has been tested without interruptions (with the exception of masonry support brackets). Therefore, it should ideally be installed uninterrupted and in a continuous line.

Any interruptions must be sanctioned by the principal designer. This includes items such as brackets, rails, and battens that could affect the continuous line of the cavity barrier. The principal designer must consider the combustibility, melting point, and shape of any interruptions that are likely to prevent FireBlox™ from performing as expected.

If it is not possible for the FireBlox™ to be fitted in a continuous line, it may be cut with a sharp knife and

tightly butted up against any obstructions and then restarted on the opposite side with the sanction from the principal designer. The obstruction must not create an unfilled void, and the cavity barrier should not be penetrated by anything other than the fixings which are used to fix the FireBlox™ to the building.

FireBlox™ should be installed onto a flat surface with no gaps behind the cavity barrier. The installation area must be free from dust, oil, or any corrosive material. Before starting work, it is important to check that the mounting substrate is solid and free from any cracks or degradation.

If the principal designer needs guidance on any issues that may prevent FireBlox™ from performing as expected, they can get in touch using the details at the back of this brochure.

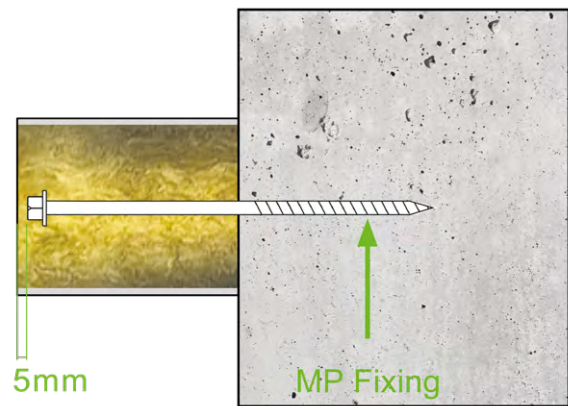
Fitting Instructions (A)

FireBlox™ - For Cavity Widths 10mm to 75mm
Vertical or Horizontal, directly faced fixed

Note: When using FireBlox™ with integral DPC, face fixing is not possible. FireBlox (FB) Brackets must be used and can be cut to size as required.

Use Grayson Multi-Purpose (MP) Stainless Screws that are a suitable length for the FireBlox™ and the substrate. The screw head must fully penetrate the face of the cavity barrier and should sit at least 5mm behind it. Ensure that the surface is not compressed by more than 10mm as this could affect performance.

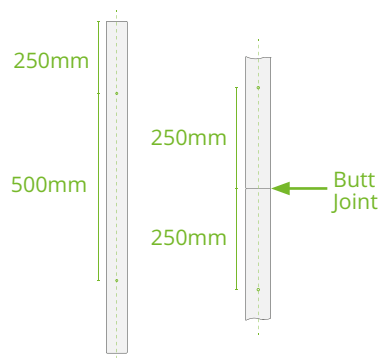
- 1 Position the first screw fixing through the centre line of the face of the FireBlox™ at a maximum of 250mm from one end.
- 2 Continue to face fix through at maximum 500mm centres (2 screws per linear meter).
- 3 Ensure that the final fixing is a maximum of 250mm from the end of the FireBlox™. This will confirm that face fixings are positioned at 500mm centres across the continuous run.



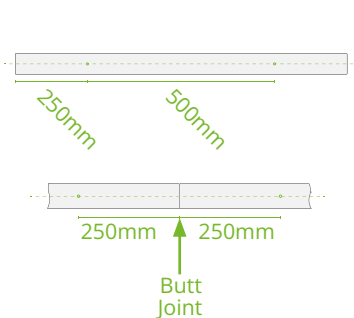
If sections of the FireBlox™ are less than 1 metre in length, Grayson MP fixings should be positioned at a maximum of 250mm from each end.

For cut sections of FireBlox™ less than or equal to 500mm in length, only one Grayson MP fixing is required.

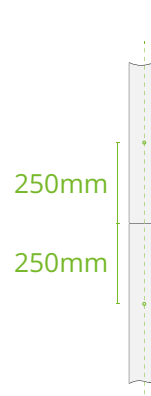
Vertical Install



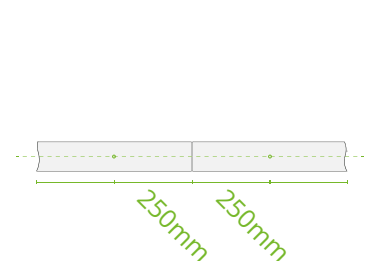
Horizontal Install



Vertical Install



Horizontal Install



Fitting Instructions (B)

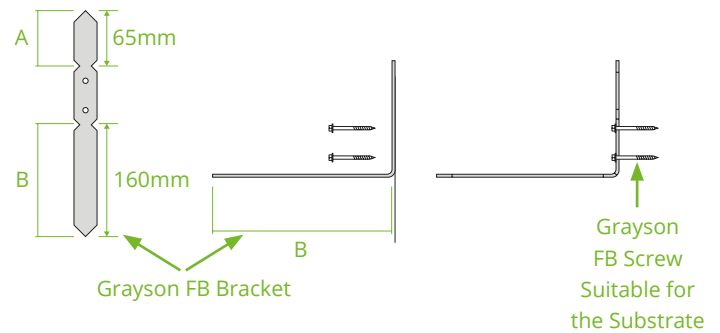
FireBlox™ - For Cavity Widths 76mm to 600mm
Vertical or Horizontal, fixed using 2 FireBlox (FB)
160mm brackets.

FB brackets are supplied with 2 fixing spikes; 1 spike is 65mm long (A), and the other is 160mm long (B), with a central section for securing the bracket to the substrate. The compression allowed for is 5mm, and care should be taken to ensure that the end of the bracket will not meet the outer substrate when compression is applied.

For cavity barriers 81mm-95mm wide (across cavity), use 2 FB brackets and the 65mm long spike (A).

For cavity barriers 96mm-605mm wide (across cavity), use 2 FB brackets and the 160mm long spike (B).

If the 160mm spike is used in barriers less than 175mm wide, it will require cutting to size to ensure that it won't pierce through the face of the cavity barrier.



Vertical barriers should be installed first.

To secure the FB bracket, use Grayson FB screws for the relevant substrate in a minimum of one fixing hole.

Fix 2 FB brackets per linear metre to the substrate at a maximum of 250mm from the end of the cavity barrier, with a maximum spacing between brackets of 500mm.

Where sections of the FireBlox™ are less than 1 linear metre in length, make sure that FB brackets are positioned at a maximum of 250mm from each end.

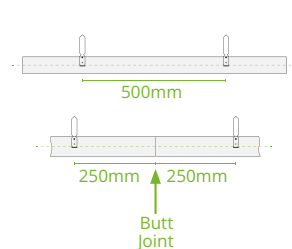
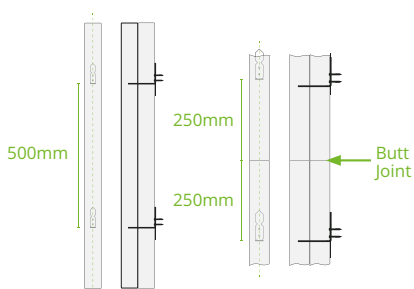
If the FireBlox™ is less than or equal to 500mm in length, 1 FB bracket may be used.

Push the FireBlox™ onto the bracket spike. The brackets should impale the FireBlox™ at mid-barrier depth and must not protrude through the face of the cavity barrier. Remember to allow for the final compression against the outer substrate.

The cavity barrier should be pushed fully onto the FB spike and sit flush with the substrate at the rear of the cavity barrier. It is important to ensure that there are no gaps behind the cavity barrier.

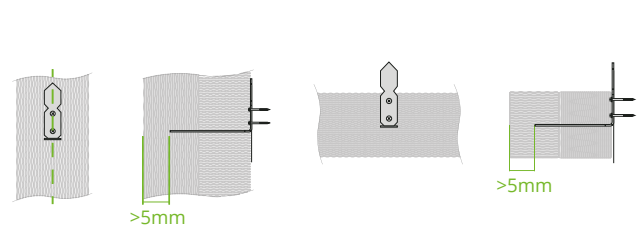
Vertical Install

Horizontal Install



Vertical Install

Horizontal Install



Fitting Instructions (C)

FireBlox™ - Horizontal Only - Installed in conjunction with masonry support brackets.

When FireBlox™ is cut on site to suit tolerances, it must be done accurately and should be kept to a minimum.

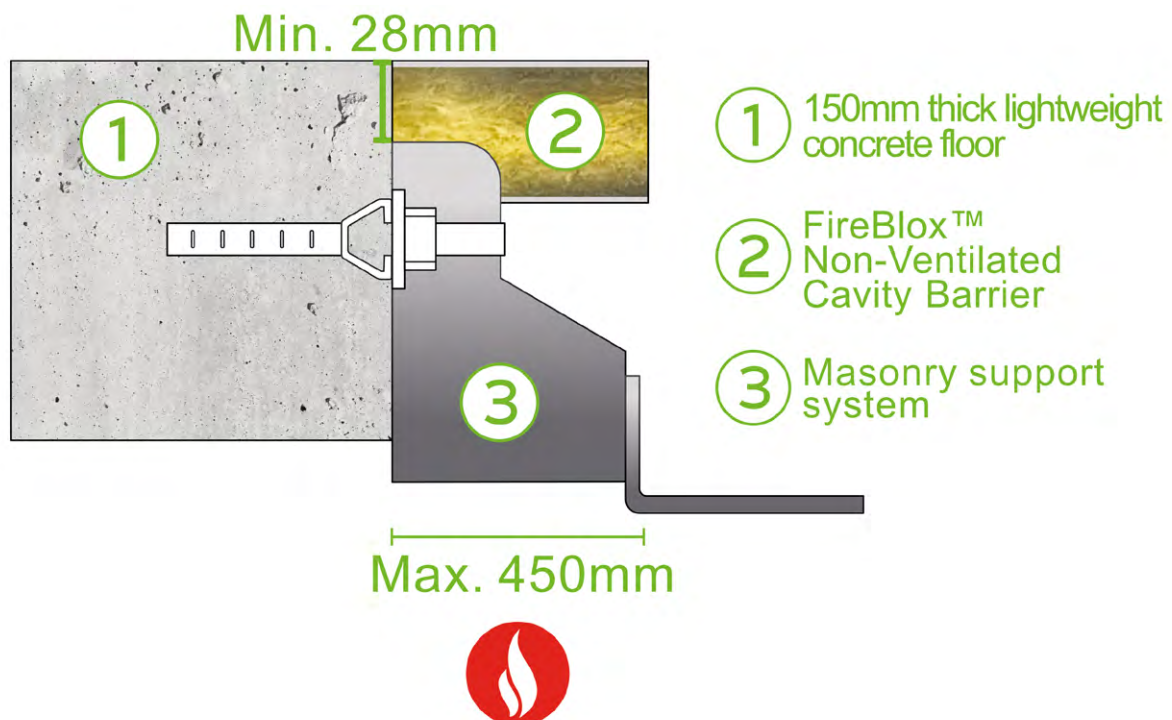
A minimum of 5mm extra for compression needs to be maintained. There must be a minimum of 28mm from the top of the masonry support bracket to the top of the FireBlox™.

Mark where the brackets meet the FireBlox™ and cut a notch, making it as small as possible.

Compress the FireBlox™ and push it into the cavity. Make sure the top of the FireBlox™ sits level with the top surface of the floor slab.

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

Diagram of typical detail



Tools/Fittings

- PPE as required by installers employer
- Masonry drill
- Drill bit to suit fixings
- MP Stainless Screws or FB Stainless Screws – dependant on application
- Screwdriver
- Measuring tape
- Saw/Knife for cutting product
- Access equipment as required

Intended Use

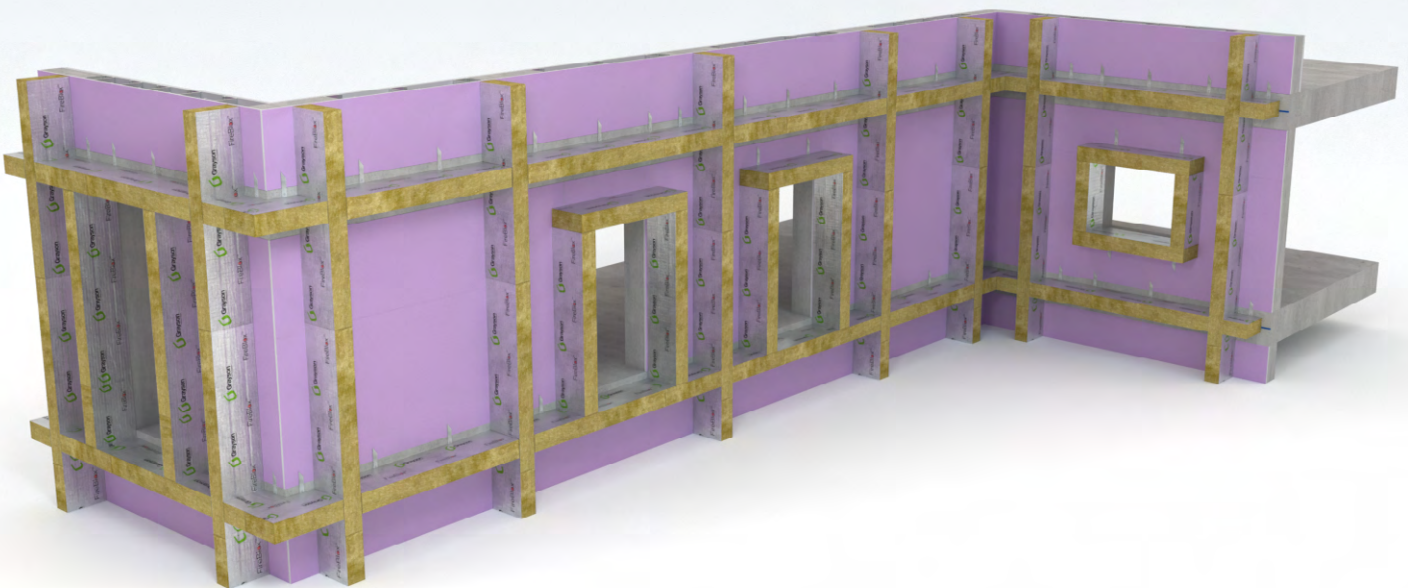
FireBlox™ is designed to be used within external wall cavities to maintain fire resistance of cavities up to 600mm in fire conditions. It can be used at the junction of compartment floors, compartment/party walls, and around openings.

Maintenance

FireBlox™ does not require any active maintenance. If alterations are made around the FireBlox™, they should be checked visually to ensure that they are still installed in line with the original design and fitting instructions.

Storage

- To be stored in a dry location
- Take care not to exceed safe working loads and heights for storage shelves and racks



Metfast 25/15 Channel & Ties



Visqueen NC DPC



Intumescent Mastic



Foil Tape



A2 Vapour Barriers



A2 Breather Membranes



Rockfibre Insulated DPC



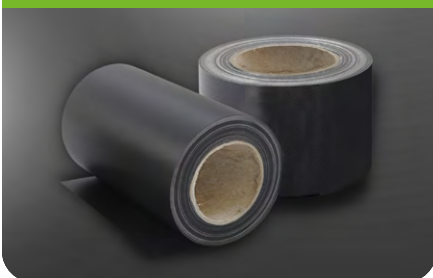
Cavity Closers



Fire Socks



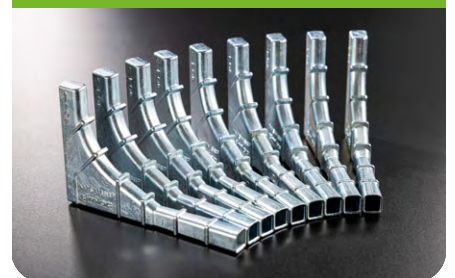
EPDM



Fire Stop Strips and Blocks



Non-combustible Weep Vents





Grayson warrants the materials it produces will conform to Grayson specifications and approved drawings where applicable. It is entirely the customer's responsibility to make the final product choice and satisfy themselves with the product's suitability for the intended application, carrying out testing where required. For construction projects, all products which the customer intends to use on a particular project must be approved in writing by the customer's building designer, system designer, or design control professional, to ensure compliance with the latest regulations.

The information contained in this data sheet is presented in good faith. Grayson makes passive fire protection product suggestions based solely upon and limited to the information made available. Grayson possesses knowledge of fire test data and offers manufacturers installation advice. Within reason, Grayson is skilled at offering opinions concerning the installations in question, and can comment on interfaces with other construction materials, but this is not a recommendation or decision. Decisions on overall building fire strategy are not made by Grayson. Grayson products have been tested for a wide range of construction types, and they must be only used in accordance with Grayson test evidence. Each specific Grayson product must be installed into a construction that matches the corresponding test report. Grayson product performance requires safe and proper handling and correct installation. Grayson can provide the relevant fire test evidence on request.

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