



FIRE STOP SLAB

Non-ventilated cavity barrier for external wall cavities

- » Up to four hours fire integrity
- » Reinforced foil face provides a smoke barrier
- » Designed for use in external wall cavities at compartment wall and floor junctions
- » Suitable for horizontal or vertical applications in cavities up to 450mm wide
- » Available factory finished to required size of in full sheets and cut to size on site
- » Approved for use with a variety of substrates including masonry, A2 sheathing board & SFS
- » Tested to EN1366-4 standards
- » Third-party certificated by IFC





FIRE STOP SLAB

Installation

The ARC Fire Stop Slab is a versatile product that is suitable for use in a variety of applications which have been developed through collaboration with customers and industry partners.

ARC Fire Stop Slab should be fitted into the cavity with lengths of barrier tightly butt jointed, with care taken to ensure there are no gaps. No tape or mastic is required to achieve the fire performance detailed below. When cutting barriers on-site from a full slab, it is important to ensure the cut size is suitable for the as-built cavity in accordance with the table below and selected application, as no gaps can remain between the barrier and the internal or external leaf.

Application

ARC Fire Stop Slab provides up to four hours of fire integrity horizontally and vertically within external wall cavities. It is particularly well suited for use with medium and high-rise projects.

ARC Fire Stop Slab is manufactured from rockfibre mineral wool insulation with a class 'O' reinforced aluminium foil facing both sides offering resistance to smoke.

Please refer to the below typical details or call customer support for further information.

Description of Installation	Orientation	Substrate	Brackets	Compression	Integrity	Insulation
Recommended. For use before construction of external leaf. At compartment walls and floors or every 20m as required by Building Regulations, around balcony brackets.	Floor	A2 sheathing board or better	Yes	5 mm	4 hr	1 hr
	Wall					
Notched by 50% for masonry support brackets.	Floor	Masonry	Yes	5 mm	2 hr	2hr
	Wall					
Notched by 90% for masonry support brackets.	Floor	Masonry	Yes	5 mm	2 hr	1.5 hr
	Wall					
Retrofit when no room to screw in brackets.	Floor	A2 sheathing board or better	No	5mm	4hr	1 hr
	Wall					
For applications where a DPC is required.	Floor	A2 sheathing board or better	Yes	5 mm	4 hr	1hr
	Wall					
At corner detail notched by 50%	Floor	Masonry	Yes	5 mm	2 hr	1hr
	Wall					
At corner detail notched by 90%	Floor	Masonry	Yes	5 mm	2 hr	0.5 hr
	Wall					

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Installation With Brackets

ARC Fixing Brackets are used to mechanically fix the barrier to the inner leaf (masonry or CP board). When using brackets in a standard application, it is acceptable to use 0mm to 5mm compression. Please ensure the brackets are installed at a minimum of 600mm centres or 2 per length, whichever is higher.

For correct installation follow, the fitting instructions below:

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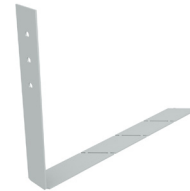
For correct installation, follow the fitting instructions:

- » Bend the bracket into an 'L' shape.
- » Fix the bracket to substrate at two points using non-combustible screws.
- » Line up the brackets with the middle of the barrier's depth.
- » Push the barrier onto the brackets.
- » Ensure the brackets are installed every 600mm or two per length.

Fixing Bracket Fitting Instructions



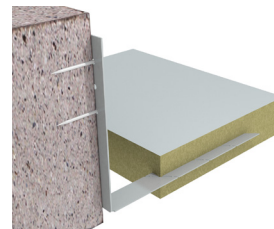
Two brackets are available: small for up to 160mm cavity and large for sizes up to 450mm.



Now bend the bracket into an 'L' shape at the fold point (a small 'U' shape cutout on each side).



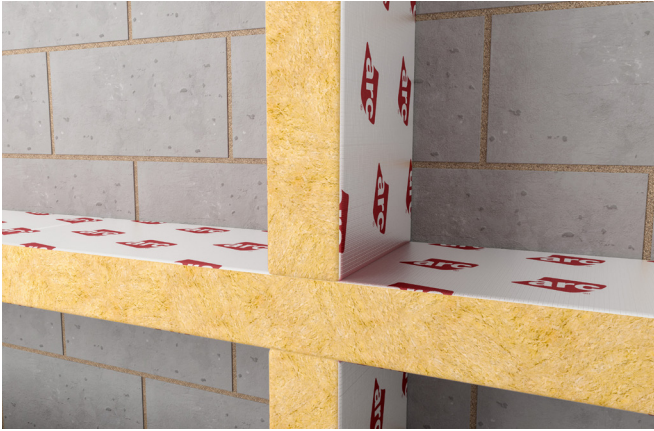
Once folded the bracket can be fixed to the block (or CP board). It is recommended to use at least two fixing points to ensure strength. Non-combustible fixings of appropriate type and strength for the substrate and application should be selected.



Now impale the insulation onto the bracket as can be seen in this cross-section. Please note two brackets should be used for each piece, approx. 150mm inwards from each end.

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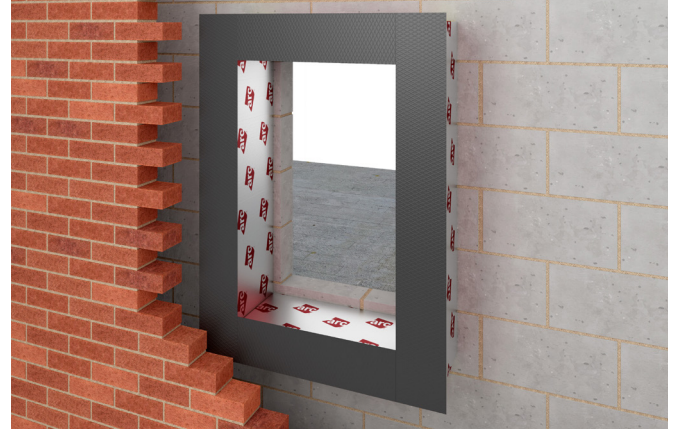
Typical Details



Installation without Brackets

In situations where the installation of the barrier without brackets is required, the ARC Fire Stop Slab can be push-fit into the built cavity, ensuring 5mm compression to comply with our fire testing data. Always make sure that each length tightly abuts the next.

This installation method is ideal for scenarios where both the internal and external walls are already built.



Installation with DPC

In situations where a DPC is required, the product should be installed with brackets and can be installed with a 0mm compression upwards ensuring that there are no gaps.

Common Details At Floor Slab

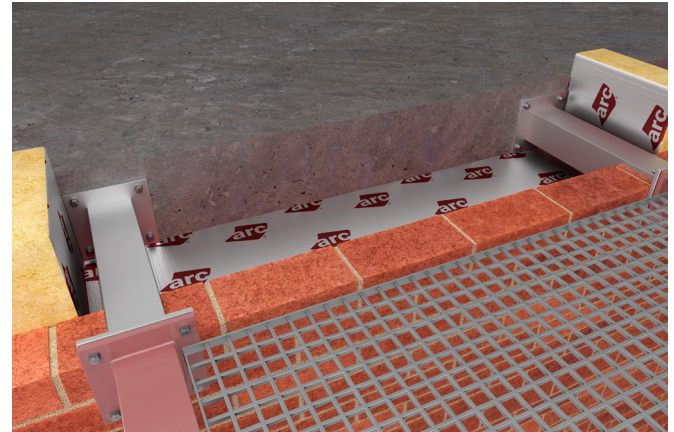
The edge of the floor slab can be a congested area due to multiple components being fixed to the floor slab. We have developed details for common applications through fire testing and collaboration with industry.



Masonry Support Bracket Detail

Where a building uses masonry support brackets at floor slab level, the ARC Fire Stop Slab can be notched and push-fit on top of the bracketry. The ARC Fixing brackets can be pre-installed into the slab so that once in place on the bracket, the fixings can be screwed into the internal wall. Our test data allows up to 90% penetration of the ARC Fire Stop Slab.

At corners, where the masonry support brackets are often taller than the linear masonry support brackets, a topper can be used to cover the section of the bracket which protrudes through the regular fire barrier line. Ensure there is a minimum of 7.5mm of mineral wool above the bracket and 20mm of mineral wool either side of the bracket.



Balcony Brackets Detail

Using existing test data, we have developed this suggested detail which offers maximum versatility around balcony brackets. Often there is no room above a balcony bracket due to the opening through the wall for a door. Therefore, our solution requires the horizontal elements of ARC Fire Stop Slab to run below the balcony brackets at the floor slab, in between the two vertical lengths of ARC Fire Stop Slab. Please see elevation and detail drawings for the requirements of this application at the end of the datasheet.



FIRE STOP SLAB

Product Sizing Table

The product code references the size of the product and therefore will not include any compression. If you require compression as described in the applications above, please account for this when placing an order.

If you are uncertain of the product size required for your cavity size and selected installation method, please contact Customer Support.

Product Code	Maximum Cavity Size	Dimensions	Pack Quantity	Packs Per Pallet
FFB50	50mm	55 x 100 x 1200mm	48	10
FFB60	60mm	65 x 100 x 1200mm	40	10
FFB70	70mm	75 x 100 x 1200mm	40	10
FFB80	80mm	85 x 100 x 1200mm	30	10
FFB90	90mm	95 x 100 x 1200mm	24	10
FFB100	100mm	105 x 100 x 1200mm	24	10
FFB110	110mm	115 x 100 x 1200mm	24	10
FFB120	120mm	125 x 100 x 1200mm	18	10
FFB130	130mm	135 x 100 x 1200mm	18	10
FFB140	140mm	145 x 100 x 1200mm	18	10
FFB150	150mm	155 x 100 x 1200mm	18	10
FFB160	160mm	165 x 100 x 1200mm	12	12
FFB170	170mm	175 x 100 x 1200mm	12	12
FFB180	180mm	185 x 100 x 1200mm	12	12
FFB190	190mm	195 x 100 x 1200mm	12	10
FFB200	200mm	205 x 100 x 1200mm	12	10
FFB210	210mm	215 x 100 x 1200mm	12	10
FFB220	220mm	225 x 100 x 1200mm	12	8
FFB230	230mm	235 x 100 x 1200mm	12	8
FFB240	240mm	245 x 100 x 1200mm	10	8
FFB250	250mm	255 x 100 x 1200mm	10	8
FFB260	260mm	265 x 100 x 1200mm	8	10
FFB270	270mm	275 x 100 x 1200mm	8	10
FFB280	280mm	285 x 100 x 1200mm	8	10
FFB290	290mm	295 x 100 x 1200mm	8	10
FFB300	300mm	305 x 100 x 1200mm	8	10
FFB325	325mm	330 x 100 x 1200mm	6	10
FFB350	350mm	355 x 100 x 1200mm	6	10
FFB375	375mm	380 x 100 x 1200mm	6	10
FFB400	400mm	405 x 100 x 1200mm	4	10
FFB425	425mm	430 x 100 x 1200mm	4	10
FFB450	450mm	455 x 100 x 1200mm	4	10
FFB50-450DPC	50-450mm	As Above	As Above	As Above
FFB50-450DPC	50-450mm	As Above	As Above	As Above

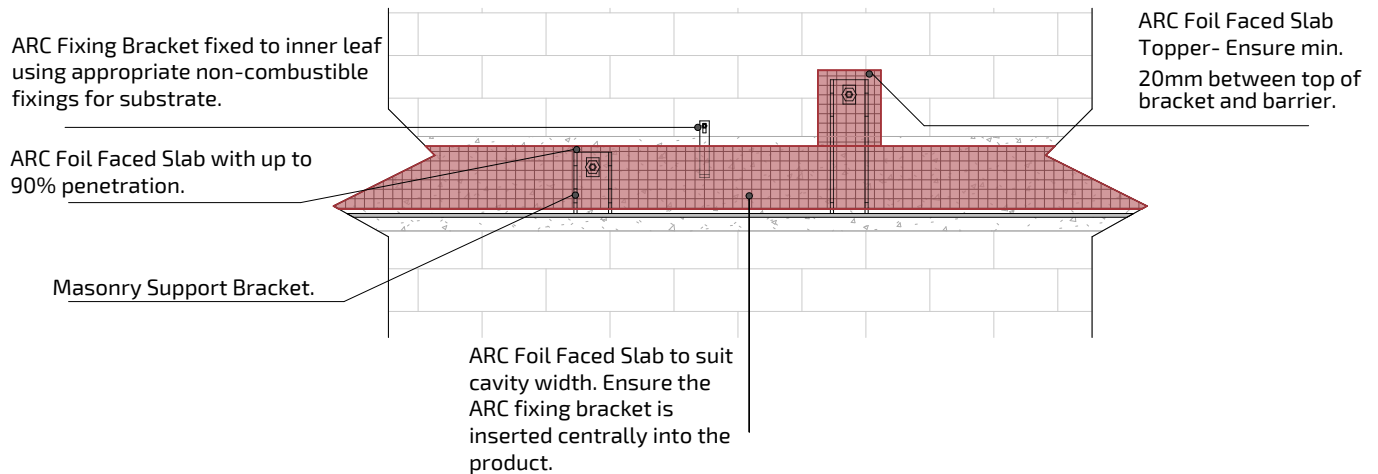
If you require a product with no compression, please order according to the dimension's column. E.g. If you require a product with no compression for a 100mm cavity, you would need to order FFB95.

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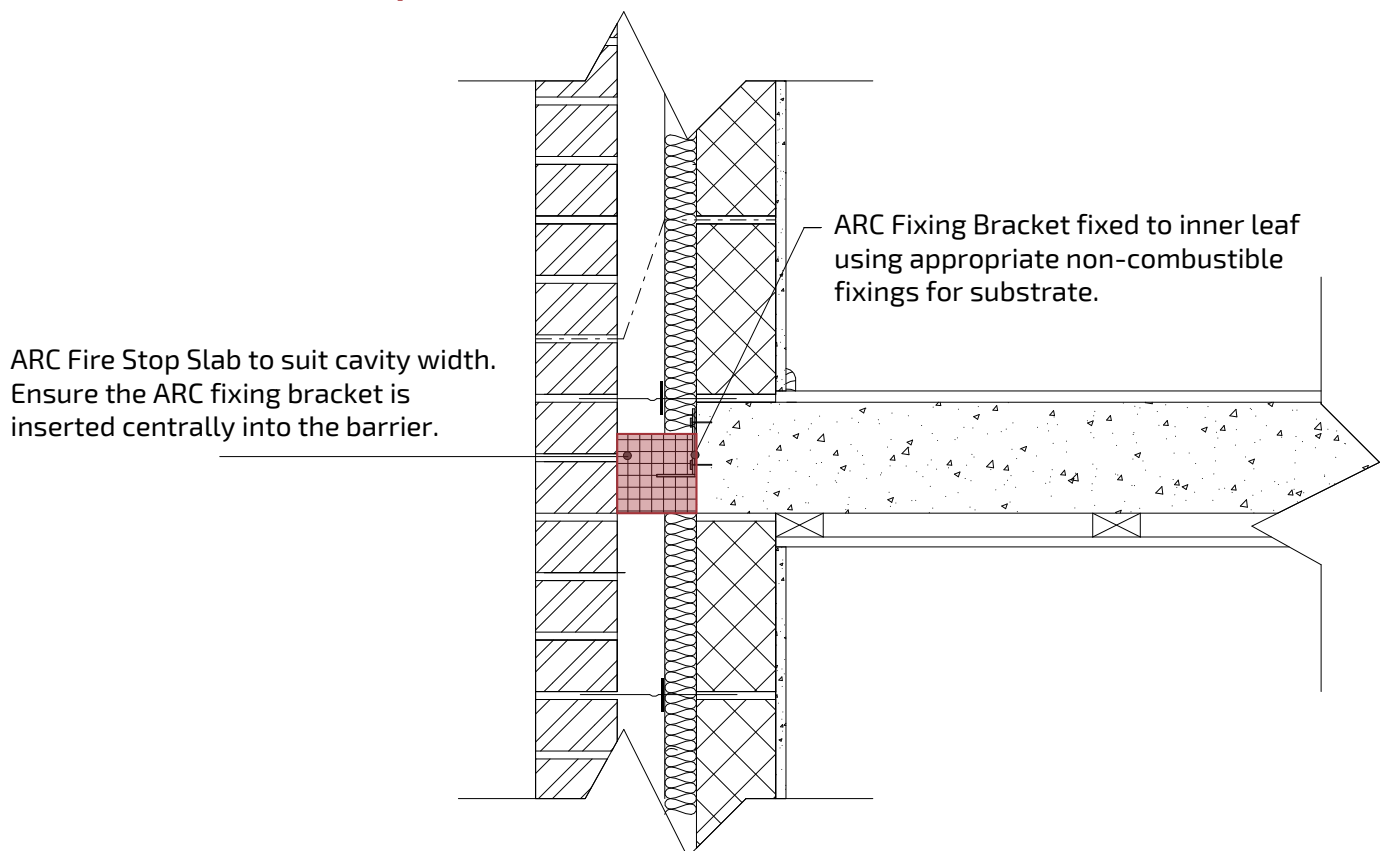
Typical Detail Examples

Please find a selection of detail drawings for typical details where the Fire Stop Slab has been installed.

Linear & Corner Masonry Support Bracket Barrier Elevation

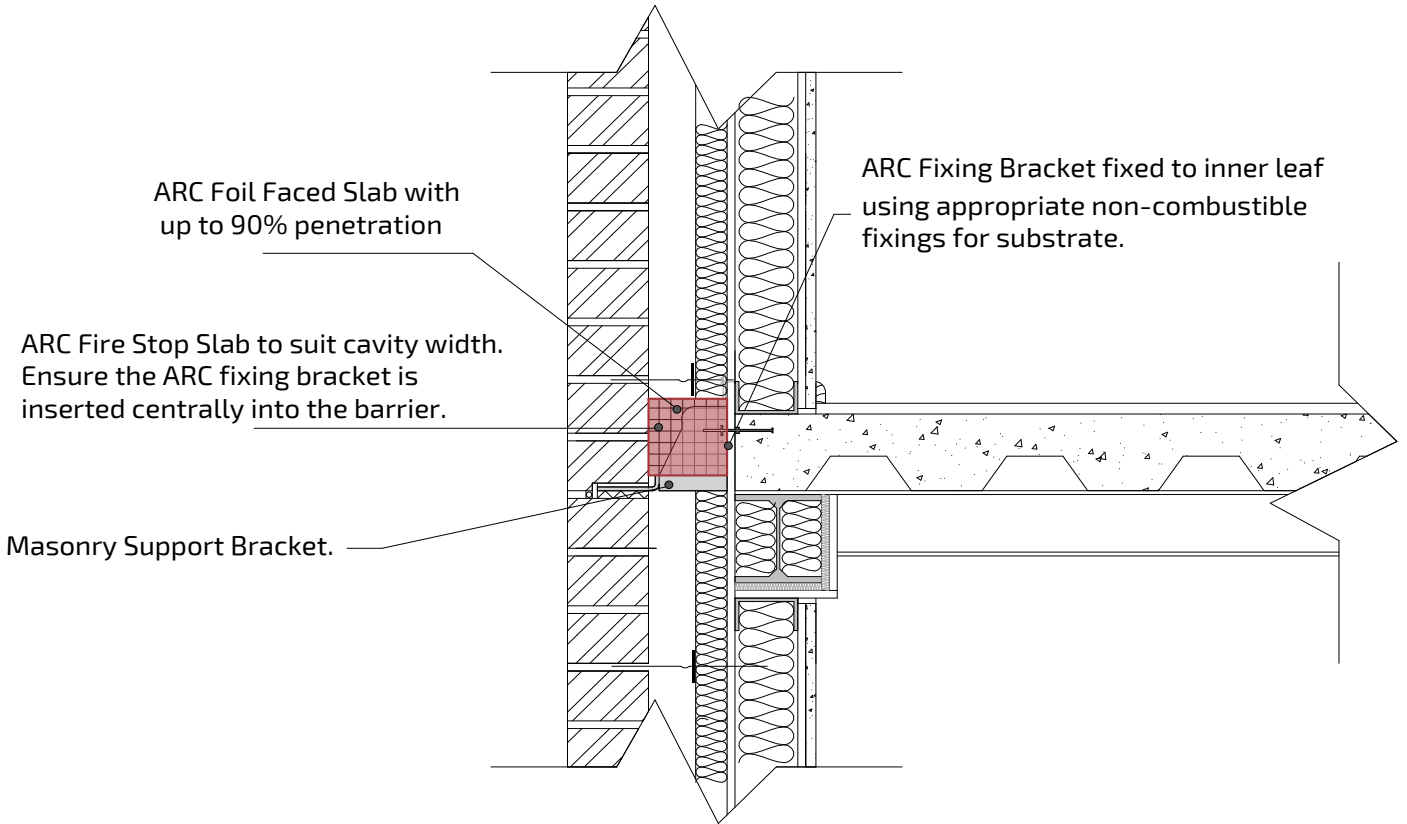


Standard ARC Fire Stop Slab Barrier Section

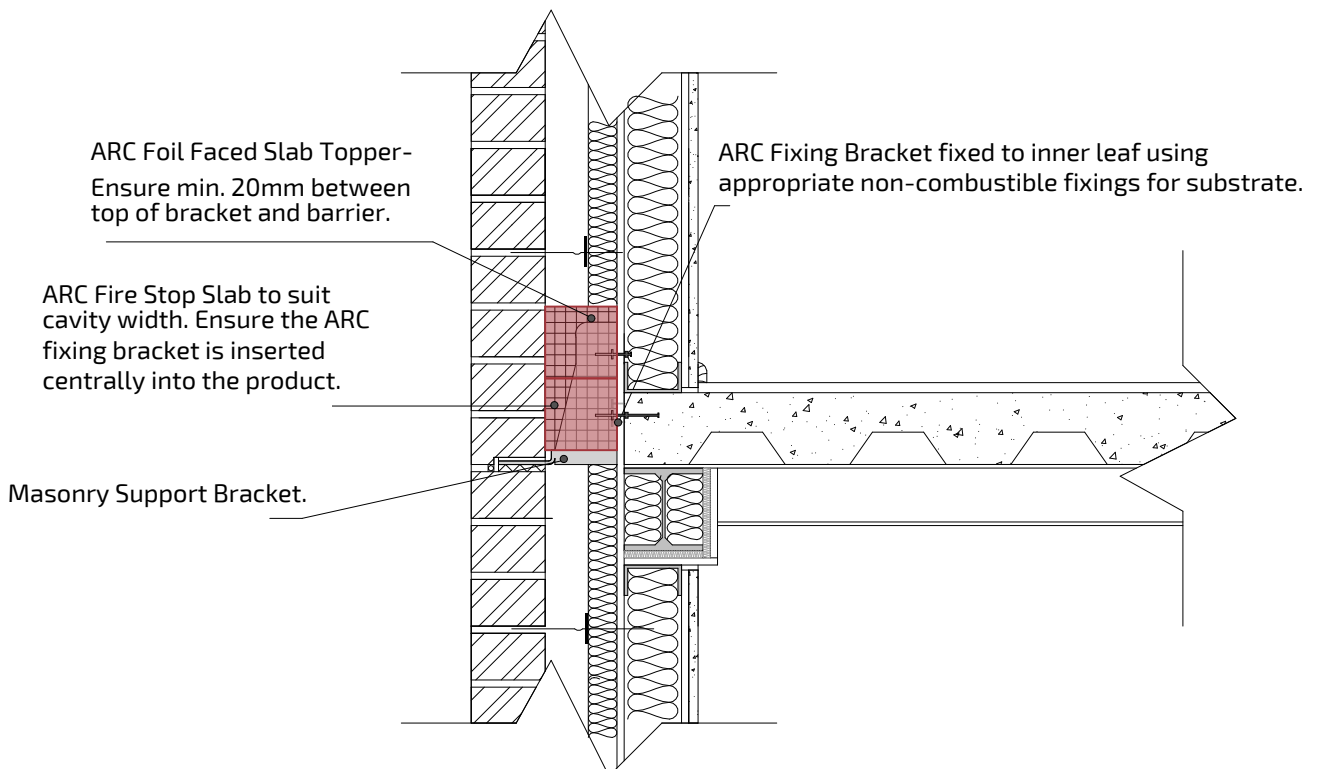


FIRE STOP SLAB

Linear Masonry Support Bracket Barrier Section

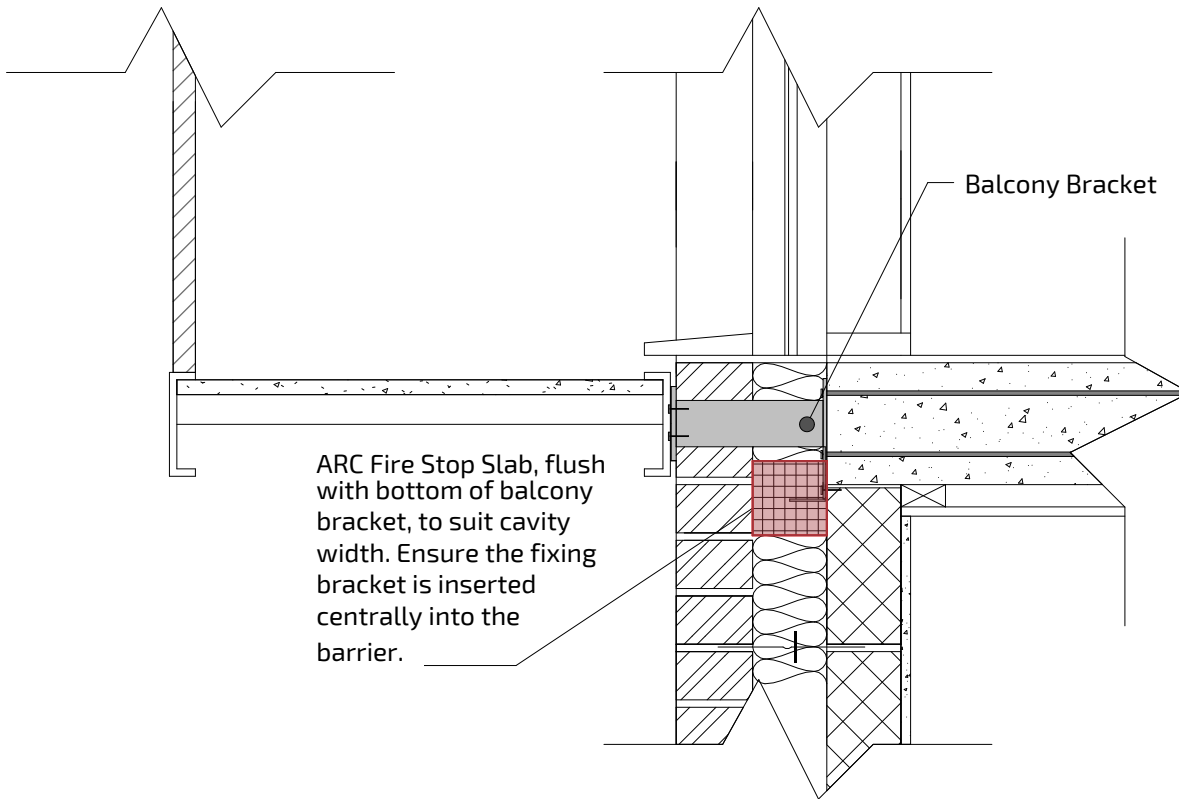


Corner Masonry Support Bracket Barrier Section

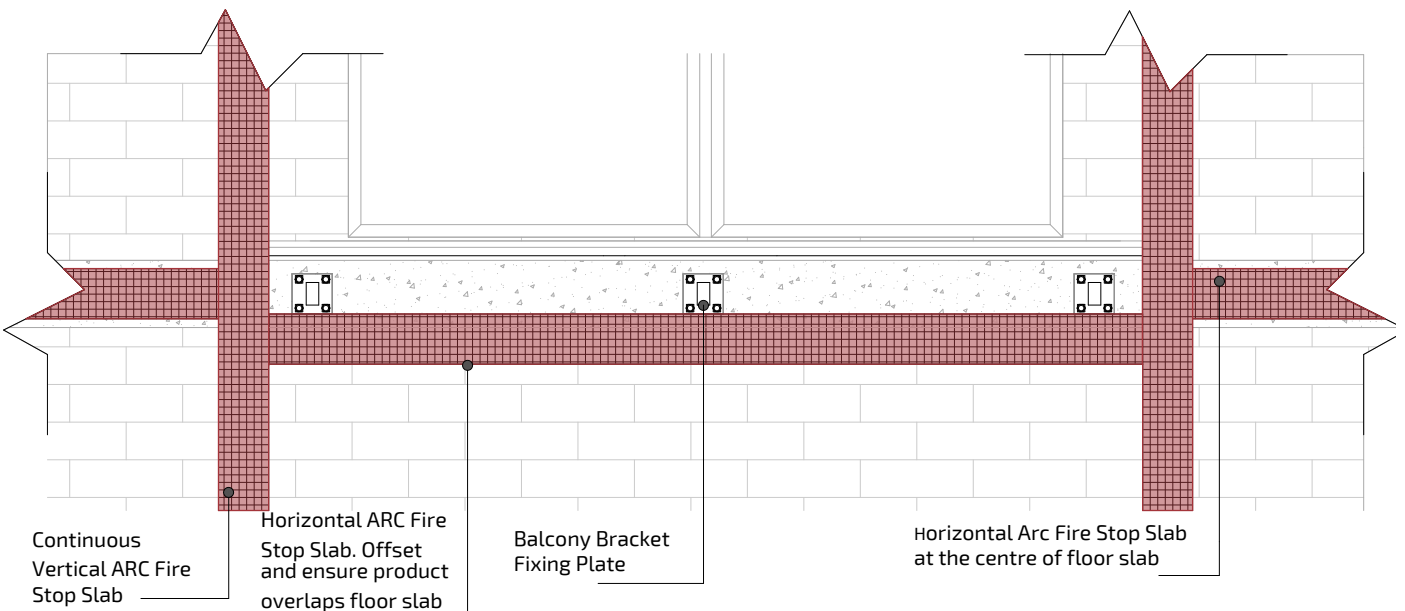


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ARC Fire Stop Slab - Balcony Bracket Section



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Environment

No CFCs or HCFCs are involved in the manufacturing process of ARC's rockfibre mineral wool insulation. The material presents no known threat to the environment and is classed as ODP and GWP zero.

ARC Fire Stop Slab has a Green Guide rating of A+.

Health and Safety

ARC Building Solutions has an approved Health and Safety Policy and is committed to working and supplying products safely. ARC's rockfibre mineral wool is not classed as a possible human carcinogen. We have assessed products as required by Substances Hazardous to Health Regulations (COSHH). An ARC COSHH data sheet is available and can be downloaded from ARC's website.

Standards

ARC Fire Stop Slab is manufactured using rockfibre mineral wool which achieves a fire classification of Euroclass A1 as defined in BS EN 13501-1, and conforms to BS EN 13162 and EN16001 Energy Management Systems. ARC's rockfibre mineral wool insulation has a thermal conductivity of 0.035W/mK.

Storage and Packaging

Cut pieces of ARC Fire Stop Slabs are supplied in polythene packs which are designed for transporting and protecting the products. It is not recommended that the packs are stored in direct sunlight. When storing the barriers for longer periods of time it is recommended that the product should be stored indoors, or under cover.

Any information provided within this document is intended for guidance only. Expert technical advice should be sought before specification or installation of any product. It is of particular importance to ensure that any fire barrier or fire stopping product is tested for use with the exact application intended. ARC Building Solutions Ltd cannot accept liability for failure where usage is outside of the standard application, including but not limited to, where deflection or distortion has allowed gaps to form around the barrier, or where the barrier is not fitted in accordance with the manufacturer's guidelines.

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Certificate Number 19310
ISO 9001, ISO 14001
ISO 45001