

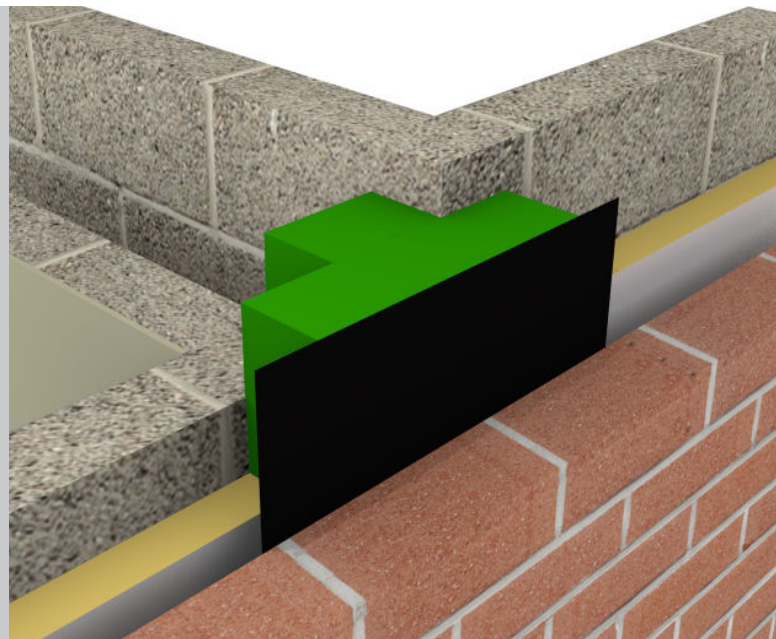
# T-Barrier<sup>®</sup> Masonry



cavity fire barrier  
for masonry party wall junctions

## key features

- » Up to four hours fire integrity
- » Seals edge of party wall cavity
- » Zero U-value at party wall can be achieved
- » Up to three times more effective as an edge seal than conventional systems
- » Reduces flanking noise
- » Minimises thermal bypass
- » Easy to install



## Application

ARC T-Barrier enables the closing of an external cavity at a party wall junction where building regulations require the use of a mineral wool closer for acoustic insulation purposes. Additionally, it provides an effective edge seal around the party wall cavity, helping to achieve a zero U-value.

## Installation

The ARC T-Barrier Masonry is easily installed as the brick and blockwork progresses. No mechanical fixings are required, a friction fit within the external cavity and compression fit within the party wall cavity ensure the barrier stays in place. For runs of more than 1.2m, lengths of T-Barrier should be butted tightly together, with care taken to ensure there are no gaps.

## Fire Properties

ARC T-Barrier Masonry has been fire tested at Warrington Fire Research, achieving up to four hours fire integrity with traditional masonry brick and block construction. These tests comply with EN1366-4.

IFC certificate number: IFCC 1728

Don't take our word for it, see our certification...

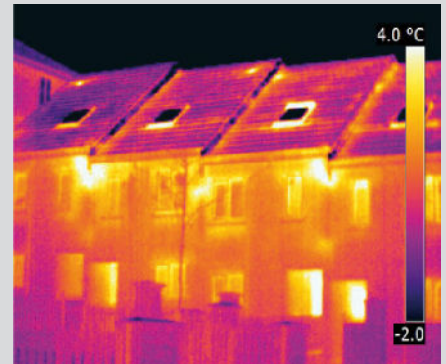


Certificate Number 19310  
ISO 9001, ISO 14001  
ISO 45001



### The Problem: Thermal Bypass

Without effective edge sealing, the party wall cavity allows heat to escape. The image (right) highlights the areas of heat loss in a row of terraced houses. Of particular note is the heat loss at the top of the junction where the party wall cavity meets the external cavity.

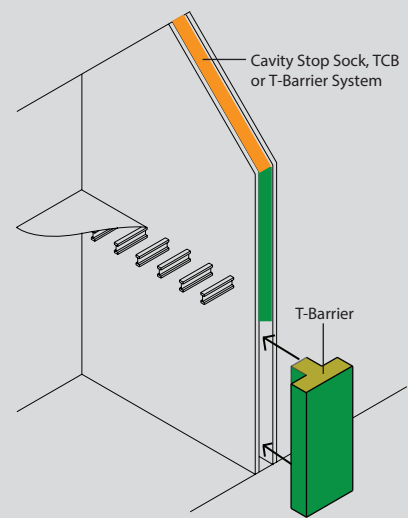


### The Solution

ARC T-Barrier creates an effective edge seal around the party wall cavity which, in conjunction with a fully filled party wall cavity, will allow a zero U-value to be achieved.

ARC T-Barrier should be installed vertically where party wall cavity meets the external cavity, while an ARC Cavity Stop Sock or TCB should be used to top out the party wall cavity.

If compliance with NHBC (2016) Chapter 7.2.16 is required, ARC T-Barrier System should be fitted, this providing fire stopping between the party wall blockwork and the roof as well as within the soffit. For more information on ARC T-Barrier System, visit our website [www.arcbuildingsolutions.co.uk](http://www.arcbuildingsolutions.co.uk).



Party Wall Construction	U-value (W W/m <sup>2</sup> K)
Solid	0.0
Unfilled cavity with no effective edge sealing	0.5
Unfilled cavity with ARC T-Barrier installed around all exposed edges and inline with insulation layers in abutting elements	0.2
A fully filled cavity with ARC T-Barrier installed around all exposed edges and inline with insulation layers in abutting elements	0.0

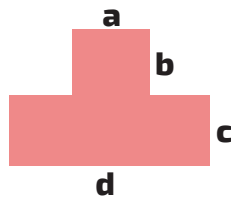
## Dimensions & Packaging Specification

Product Code	Party Wall Cavity	External Cavity	Dimensions	Masonry Fire Performance		Pack Quantity	Packs Per Pallet
				Integrity	Insulation		
TBM75/100	75mm	100mm	85/100 x 105/250 x 1200mm	4 hrs	2 hrs	6	10
TBM75/120	75mm	120mm	85/100 x 125/250 x 1200mm	4 hrs	2 hrs	6	10
TBM75/125	75mm	125mm	85/100 x 130/250 x 1200mm	4 hrs	2 hrs	6	10
TBM75/150	75mm	150mm	85/100 x 155/250 x 1200mm	4 hrs	2 hrs	3	14
TBM100/100	100mm	100mm	110/100 x 105/250 x 1200mm	4 hrs	2 hrs	6	10
TBM100/120	100mm	120mm	110/100 x 125/250 x 1200mm	4 hrs	2 hrs	4	10
TBM100/125	100mm	125mm	110/100 x 130/250 x 1200mm	4 hrs	2 hrs	4	10
TBM100/150	100mm	150mm	110/100 x 155/250 x 1200mm	4 hrs	2 hrs	3	14
TBM125/100	125mm	100mm	135/100 x 105/250 x 1200mm	4 hrs	2 hrs	6	10
TBM125/120	125mm	120mm	135/100 x 125/250 x 1200mm	4 hrs	2 hrs	6	10
TBM125/125	125mm	125mm	135/100 x 130/250 x 1200mm	4 hrs	2 hrs	6	10
TBM125/150	125mm	150mm	135/100 x 155/250 x 1200mm	4 hrs	2 hrs	3	14
TBM150/100	150mm	100mm	160/100 x 105/250 x 1200mm	4 hrs	2 hrs	6	10
TBM150/120	150mm	120mm	160/100 x 125/250 x 1200mm	4 hrs	2 hrs	6	10
TBM150/125	150mm	125mm	160/100 x 130/250 x 1200mm	4 hrs	2 hrs	6	10
TBM150/150	150mm	150mm	160/100 x 155/250 x 1200mm	4 hrs	2 hrs	3	14

Non-standard sizes available on request. Contact us for more information.

### Dimensions explained...

a/b x c/d x length



### Standards

ARC T-Barrier 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. The DPC is manufactured in accordance with BS 6515.

ARC's rockfibre mineral wool insulation has a thermal conductivity of 0.037W/mK.

### Storage and Packaging

ARC T-Barriers 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.

### 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 T-Barrier 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.

#### You might also be interested in...

ARC T-Barrier System: Fire, Thermal and Acoustic Requirements at the Party Wall and Pitched Roof

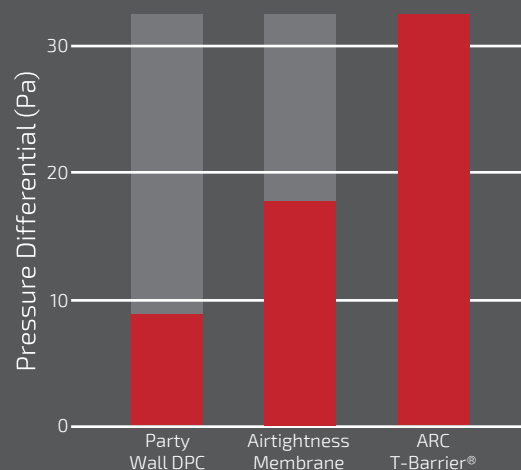


## Edge Seal Effectiveness

The effectiveness of ARC T-Barrier as an edge seal has been independently tested by Leeds Beckett University. The test replicated real life conditions by measuring the differentials between pressurised and non-pressurised cavities.

This ground-breaking test is the only effective test available currently to measure a product's effectiveness as an edge seal.

ARC T-Barrier was found to provide three times the pressure differential compared to a conventional cavity barrier system, and nearly twice the pressure differential of the Airtightness Membrane employed by some house builders.



Results presented were obtained using a 100mm party wall cavity with a 100mm external cavity.



Leeds Sustainability Institute