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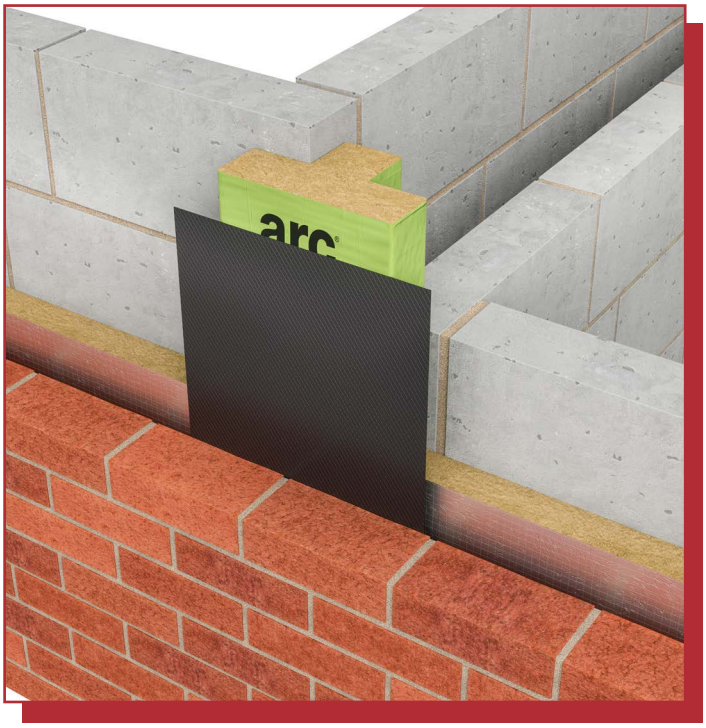
Protecting People.
Protecting Places.

ARC T-BARRIER® MASONRY

Cavity fire barrier for masonry party wall junctions



- Up to **4 hours fire integrity**
- **Seals edge** of party wall cavity
- **Zero U-value** at party wall can be achieved
- Minimises **thermal bypass**
- Includes **Integral DPC**
- **Third-party certificated** by IFC

Third Party Certificated

Exceeds Performance Requirements

Fire Product

Excellent Thermal Properties

NBS Source PARTNER

IFC Certification

Application

ARC T-Barrier® Masonry 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. The ARC T-Barrier® Masonry comes complete with an integral DPC.

Installation

The person installing the T-Barrier® Masonry should first familiar themselves with this datasheet, ensuring the correct product is being fitted into the cavity.

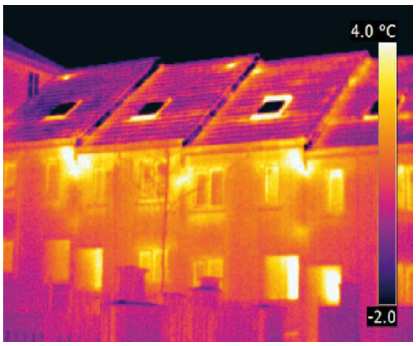
The ARC T-Barrier® Masonry is easily installed as the brick and blockwork progresses. No mechanical fixings are required, a friction fit within the external cavity and compression fit within the party wall cavity ensure the barrier stays in place. For runs of more than 1.2m, lengths of T-Barrier® should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

Each product comes with an extra length of DPC at one end of the product so that it can be lapped over the previous barrier, providing a continuous DPC. Alongside this, the ARC T-Barrier® Foundation should be used at the foundation level to complete the fire line.

Care should be taken when handling the product to ensure that the mineral wool isn't damaged.

The Problem: Thermal Bypass

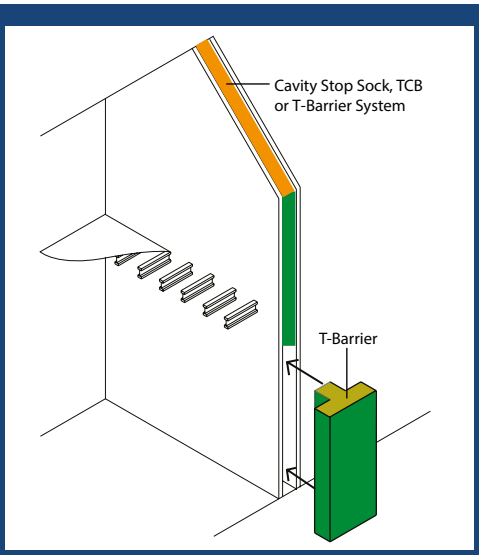
Without effective edge sealing, the party wall cavity allows heat to escape. The image (below) highlights the areas of heat loss in a row of terraced houses. Of particular note is the heat loss at the top of the junction where the party wall cavity meets the external cavity.



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.

Party Wall Construction	U-value (W W/m2K)
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

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Key Stats

Length supplied	600mm
Third-party certification	IFC certificate number: IFCC 1728
Insulation	Non-combustible rockfibre mineral wool
Thermal conductivity	0.037W/mK
Fire Resistance (Insulation)	Up to 2 hours
Fire Resistance (Integrity)	Up to 4 hours
Mass	Data available on request
Construction type	Masonry
Test standard	EN1366-4

Fire Properties

ARC T-Barrier® Masonry has been fire tested in accordance with the principles given in EN 1366-4:2006 + A1 2010 and EN1366-4:2021, achieving up to four hours fire integrity within a masonry construction.

ARC T-Barrier® Masonry is certificated by IFC Certification, a third-party accreditation scheme. IFC's product certifications are designed to give confidence to architects, specifiers, contractors, users, occupiers and owners that products have been thoroughly and independently evaluated and will continue to be manufactured to the same specification as originally tested.

ARC T-Barrier® Masonry - IFC certificate number: IFCC 1728

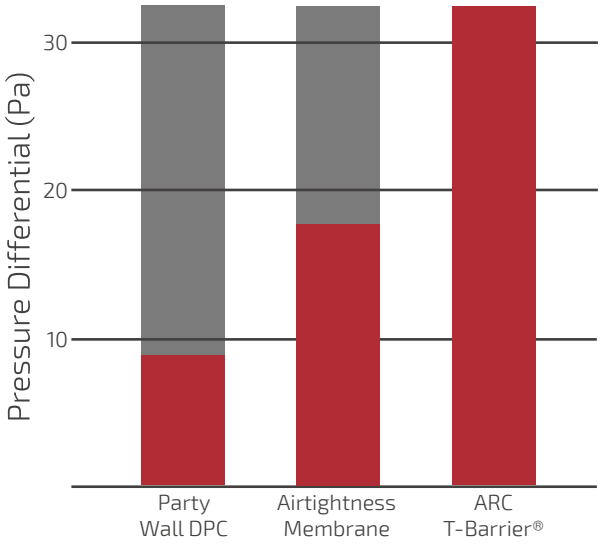
Test reports, third party certification and the material datasheet are all available upon request.

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 BECKETT UNIVERSITY | Leeds Sustainability Institute

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Product & Packaging Specifications

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

All performance claims can be evidenced on IFC certificates IFC 1728.

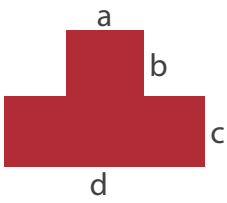
For party wall cavities over 150mm, please get in touch with us to discuss your solution.

Can't find your external cavity size? ARC T-Barrier® Masonry can be manufactured to non-standard sizes available on request.

Call our technical experts on 0113 252 9428 to discuss your requirements.

Dimensions explained

a/b x c/d x length



Standards

ARC T-Barrier® Masonry is manufactured using rockfibre mineral wool which achieves a fire classification of Euroclass A1 as defined in BS EN 13501-1.

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

As required by building regulations, the mineral wool is encapsulated in polythene. This element is not noncombustible.

Non-Standard Applications

Where usage falls outside of the certificated scope, for example when used with external cladding, or with an internal metal frame system, performance of the fire barrier will depend heavily upon the structural integrity and fire performance of the surrounding construction.

Specifiers must ensure all construction elements that make up part of the internal or external leaf of the wall, including support systems, are suitable for use with a cavity fire barrier for the length of fire integrity and insulation required. Particular attention must be paid to any possible deflection or distortion which could cause gaps to form between the construction and any fire barrier installed.

In the event of a fire, 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.

Storage & Packaging

ARC T-Barrier® Masonry is 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 especially during inclement weather or overnight.

Health & Safety

At ARC Building Solutions, safety is a top priority, both in how we work and the products we supply.

We've carefully assessed the materials we use, and we're pleased to say our rockfibre mineral wool isn't classed as a possible carcinogen. This means that, in line with UK regulations, our products don't require a safety data sheet.

Our products have no hazardous classifications under UK REACH and GB CLP regulations when it comes to physical, health, or environmental risks.

As always, we recommend following the product instructions when handling and installing ARC products. If you'd like more information on our approach to health and safety as a whole, just ask us for a Safety Data Sheet (SDS).

Environment

No CFCs or HCFCs are involved in the manufacturing process of ARC's rockfibre mineral wool insulation. Additionally, the mineral wool has a Green Guide rating of A+.

This product can be disposed of via landfill; preferably, the product should be returned to ARC Building Solutions so that the waste can be separated and recycled accordingly.

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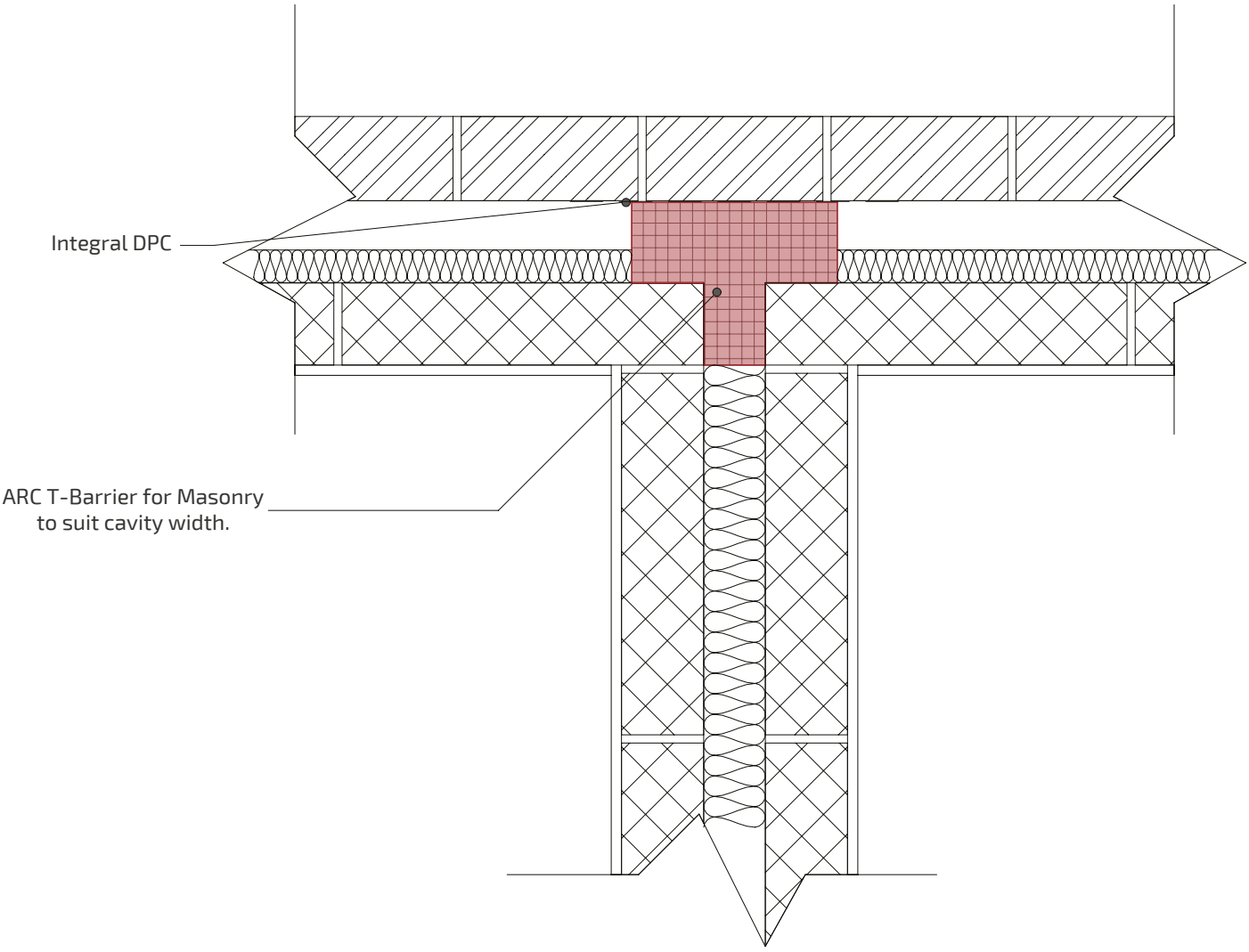
Typical Detail Example

Please find a detail drawing for a typical detail where the T-Barrier® Masonry has been installed.



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