



T-BARRIER® PITCHED ROOF

Fire stopping between party wall and roof covering

- » Provides fire stopping at the head of a block party wall
- » Complies with NHBC 2017 7.2.16
- » Held in position by compression fit within the party wall cavity
- » Sits in compression directly under the roofing membrane
- » Up to three times more effective as an edge seal than conventional systems
- » Easy to install



T-BARRIER® PITCHED ROOF



Application

The ARC T-Barrier Pitched Roof is designed to provide a fire, thermal and acoustic barrier between the top of the party wall blockwork and the underslating felt. The product is fitted along the length of the roof pitch, from soffit to apex ensuring an effective and consistent barrier.

NHBC 7.2.16 states that a separating wall should stop 25mm below the top of the adjacent roof trusses. ARC T-Barrier Pitched Roof is designed to compress within this gap, satisfying the NHBC recommendation for a mineral wool fire barrier.

Installation

The ARC T-Barrier Pitched Roof is easily installed once the party wall blockwork is complete, with the unique T-shape being held in place by compression between the two leaves of party wall blockwork.

Key Stats

Length supplied	1.2m
Insulation	Non-combustible rockfibre mineral wool
Thermal conductivity	0.037W/mK
Test standard	BS 476: Part 20: 1987 and BSEN 1366-4: 2006

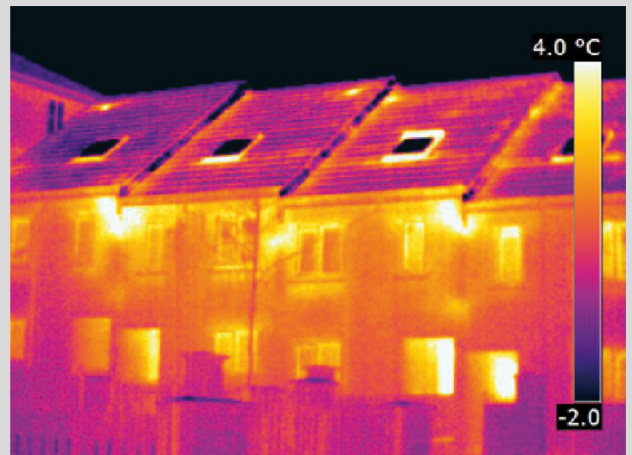
Acoustic Properties

The rockfibre mineral wool insulation used in the manufacture of ARC T-Barrier has the following acoustic absorption properties. Figures quoted were achieved with a solid backing.

Thickness	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz
40mm	0.19	0.46	0.79	0.92	1.00	1.00
100mm	0.57	1.00	1.00	1.00	1.00	1.00

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

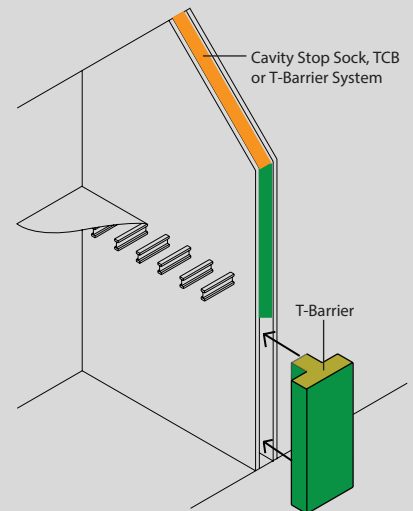


The Solution

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

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Fire Properties

ARC T-Barrier Pitched Roof complies with building regulations for fire stopping at the pitched roof party wall detail, as well as NHBC 7.2.16.

ARC T-Barrier Pitched Roof achieves up to four hours fire integrity where it closes the top of the party wall cavity. Tests were carried out by Exova Warrington in accordance with BS 476: Part 20: 1987 and BSEN 1366-4: 2006, using the test method stated EGOLF TC2 N421 (fire resistance for cavity barriers).

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.

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

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.

Product & Packaging Specification

Product Code	Maximum Cavity Width		Dimensions	Lengths per pack	Packs per pallet
	Party Wall Cavity	Void Thickness			
TBR50/25	50mm	25mm	65/65 x 50/300 x 1200mm	9	10
TBR75/25	75mm	25mm	90/75 x 50/300 x 1200mm	9	10
TBR100/25	100mm	25mm	120/100 x 50/300 x 1200mm	9	10
TBR125/25	125mm	25mm	135/120 x 50/300 x 1200mm	6	12
TBR150/25	150mm	25mm	160/120 x 50/300 x 1200mm	3	14

Can't find your size? Non-standard sizes available on request. **Call our technical experts on 0113 252 9428 to discuss your**

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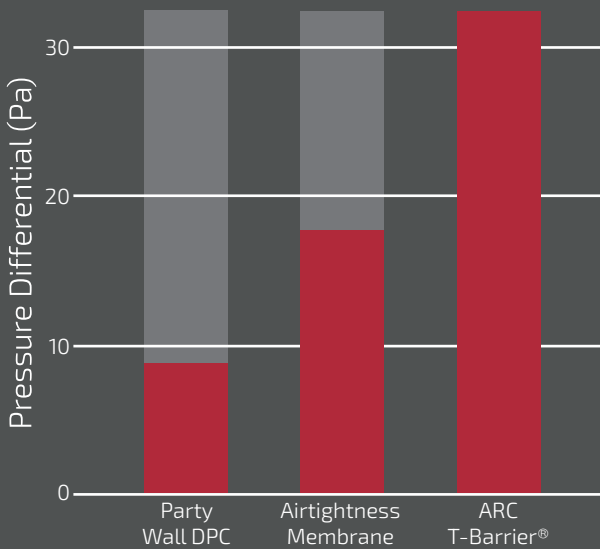


Edge Seal Effectiveness

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**

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.

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