V1.6 14.03.2025

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
- Easy to install

NBS Source PARTNER

IFC Certification

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Application

The ARC T-Barrier® Pitched Roof is designed to provide a fire, thermal barrier between the top of the party wall blockwork and the underslaters 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 person installing the ARC T-Barrier® Pitched Roof should first familiar themselves with this datasheet, ensuring the correct product is being fitted into the cavity.

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.

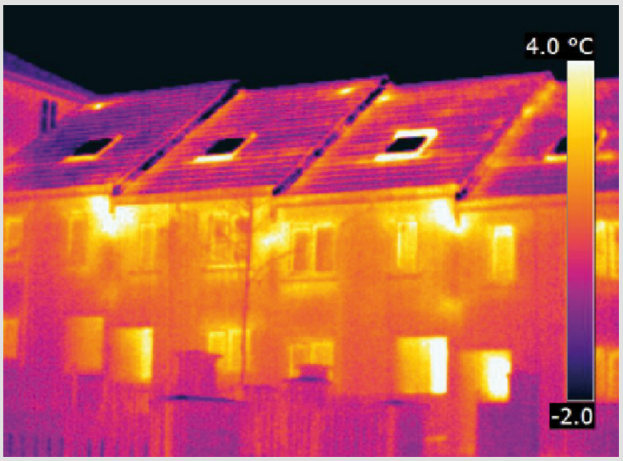
Care should be taken when handling the product to ensure that the mineral wool isn't damaged.

Key Stats

Length supplied	1.2m
Insulation	Non-combustible rockfibre mineral wool
Third-Party Certification	T-Barrier Pitched Roof: IFC certificate number: IFCC 1728
Thermal conductivity	0.037W/mK
Test standard	BS 476: Part 20: 1987 and BSEN 1366-4: 2006
Mass	Data available on request

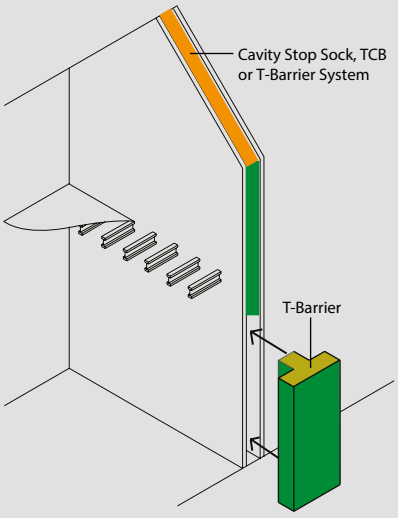
The Problem: Thermal Bypass

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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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.

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

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

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

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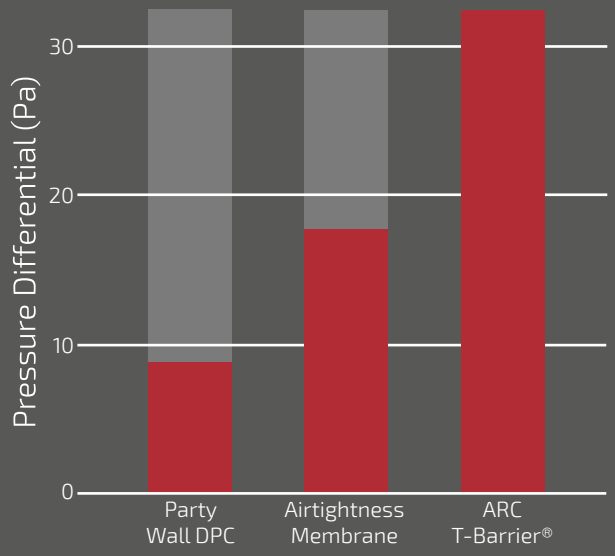
Edge Seal Effectiveness

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 BECKETT UNIVERSITY | 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. Cover products at night or in bad weather.

Environment

No CFCs or HCFCs are involved in the manufacturing process of ARC's rockfibre mineral wool insulation. ARC T-Barrier® 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.

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 Material Safety Datasheet (MSDS) is available upon request.

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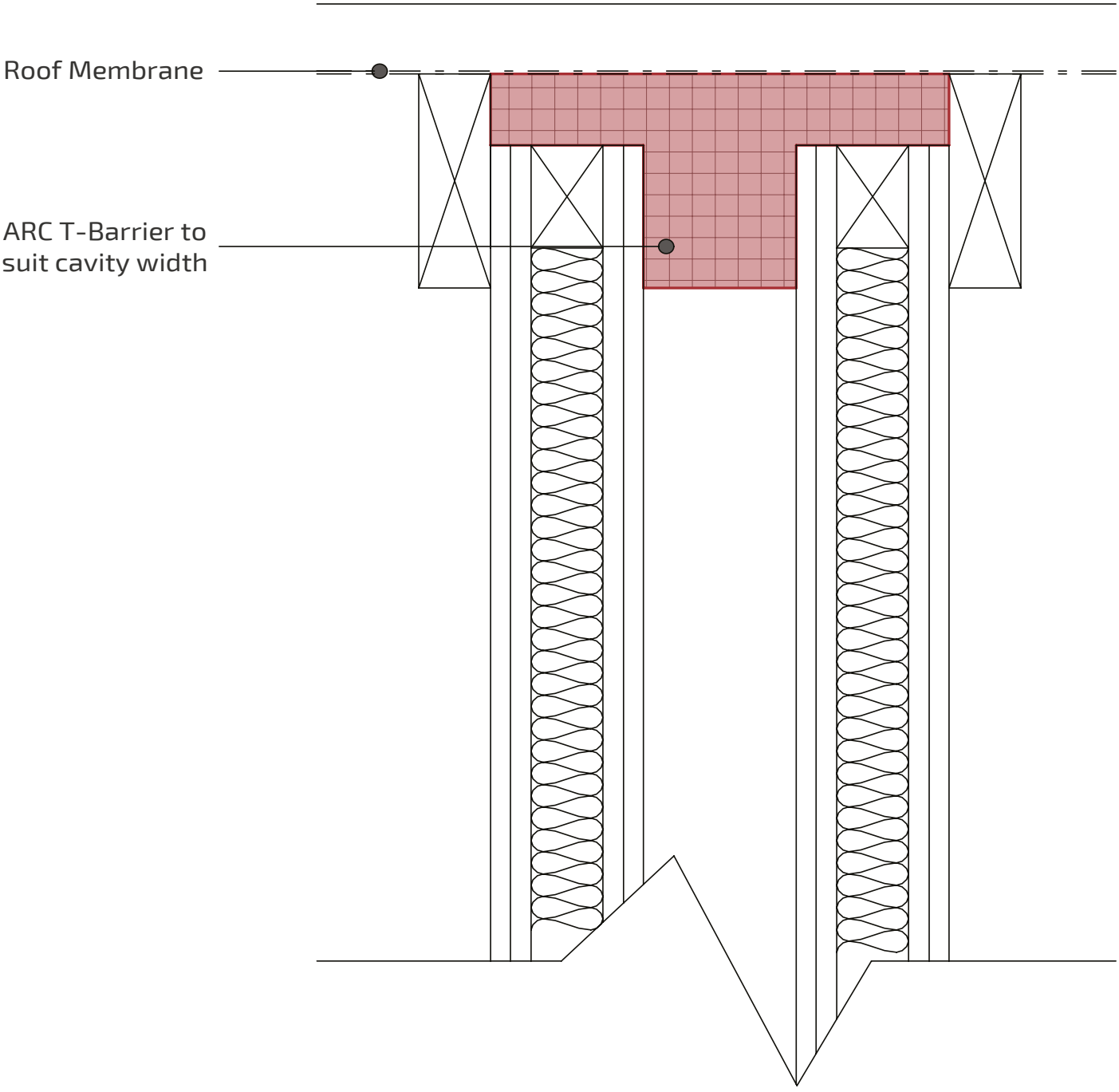
Typical Detail Examples

Please find a selection of detail drawings for typical details where the T-Barrier® Pitched Roof has been installed.

ARC T-Barrier® Pitched Roof Spandrel Section



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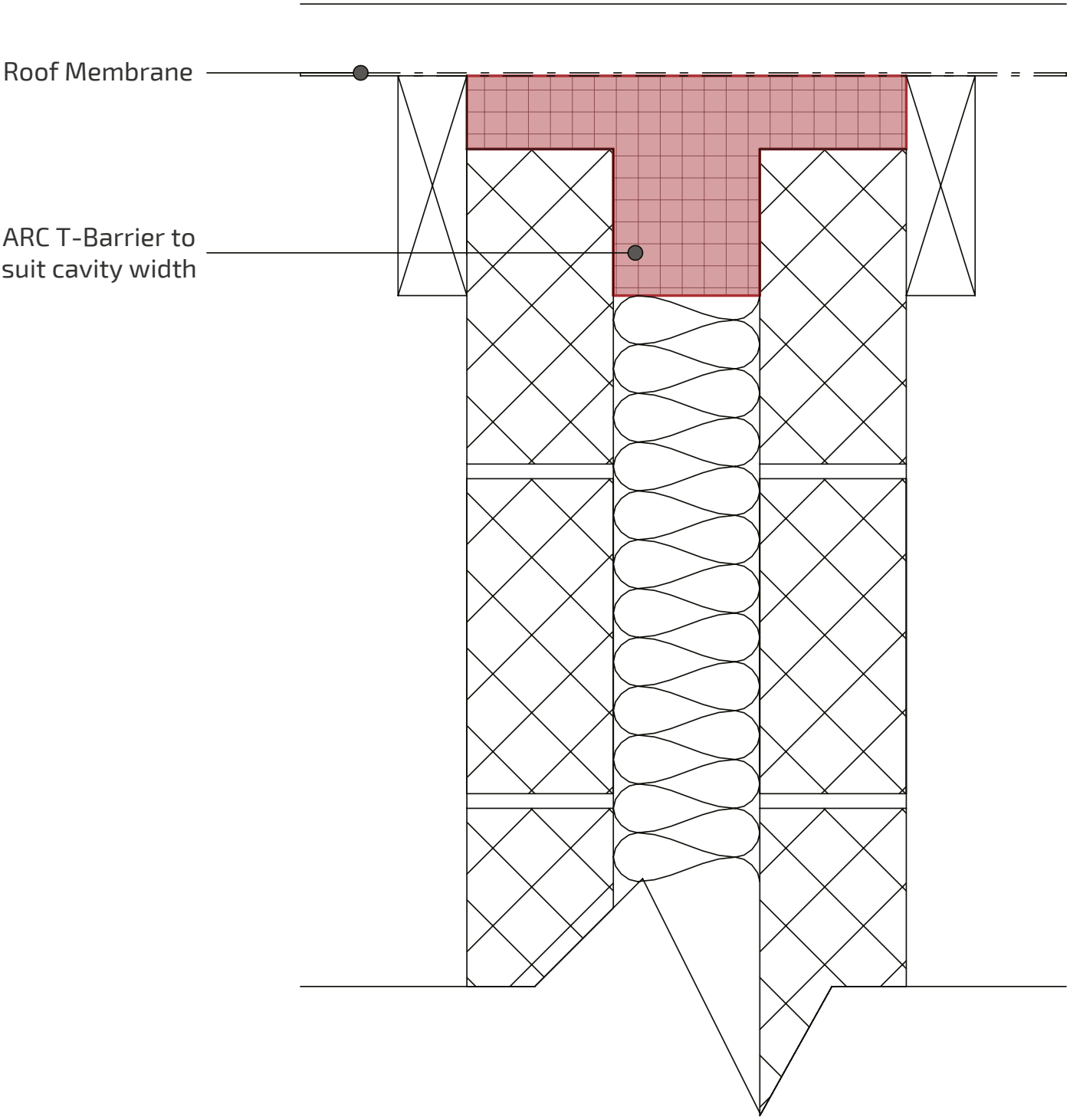
ARC T Barrier® Pitched Roof Masonry Section



Certificate Number 19310
ISO 9001, ISO 14001
ISO 45001