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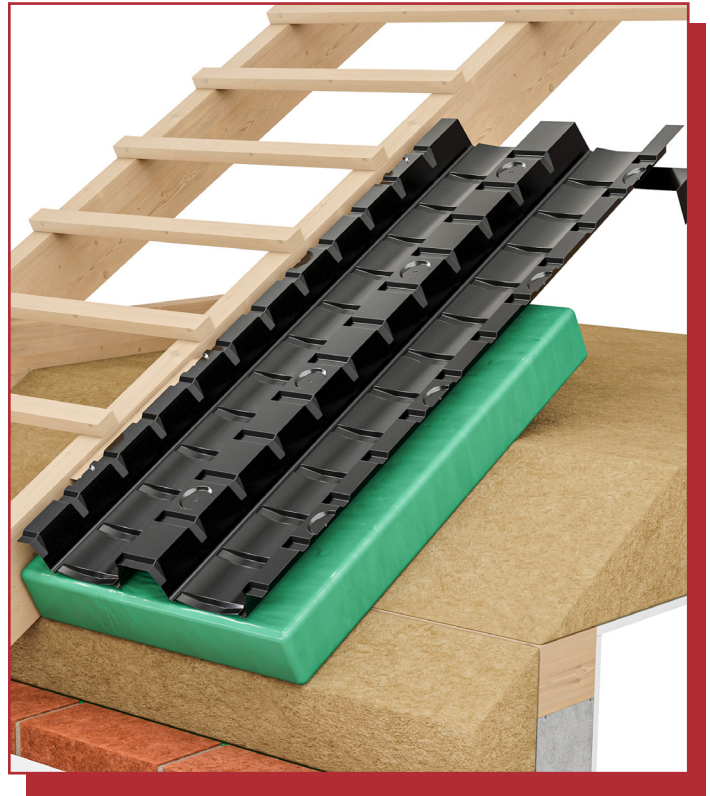
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ARC RETROFIT WALL PLATE INSULATOR

Retrofit thermal insulation & ventilation over the wall plate

- » Ensures improved insulation over the wall plate into the soffit
- » Maintains 10,000 mm² ventilation area
- » Reduces thermal bridging at the eaves detail, improving the Psi value
- » Improves thermal performance of the house
- » Reduces the risk of condensation and mould formation
- » Fast and easy installation
- » Innovative fixing strap making the RWPI suitable for all rafter spacings
- » Appropriate for PAS 2035 projects
- » Achieves insulation and ventilation at historically difficult to retrofit sloped ceiling details



Easy
Installation



Tackles Damp
and Mould



Excellent Thermal
Properties



PAS 2035
Compliant



NBS Source
PARTNER

Application

The ARC Retrofit Wall Plate Insulator (RWPI) was developed to address heat loss at the eaves junction, of the existing housing stock in the UK.

The eaves junction, where a pitched roof meets the wall, is a difficult detail to insulate retrospectively due to space constraints and is therefore prone to excessive heat loss. Historically, mineral or glass wool was stuffed into this detail; however, this blocks the ventilation path from the eaves into the cold loft space and can result in mould formation and interstitial condensation in the structure. If the installer estimates a ventilation gap, it is difficult to ensure an appropriate ventilation path is maintained whilst fully insulating the eaves. A gap in the insulation at the eaves detail will result in a thermal bridge and a cold spot on the internal walls where moisture in the air can condense and mould will begin to grow.

The ARC Retrofit Wall Plate Insulator is easy to install, ensures insulation over the wall plate, and maintains a ventilation path as required in the building regulations. The ARC Retrofit Wall Plate Insulator is to be used when it is possible to pass insulation over the wall plate so that the loft roll becomes continuous with the wall or soffit insulation.

In cases where access over the wall plate is not possible, the Retrofit Eaves Insulator may be appropriate. This may be the case when the path is blocked by the wall plate. The ARC Retrofit Wall Plate Insulator can also be used when there is a sloped ceiling (AKA skeliling) detail. This detail is renowned for poor thermal characteristics.

Installation

The ARC Retrofit Wall Plate Insulator is designed to be quickly and easily installed from the loft space, reducing labour time and significant construction costs.

- » Remove a sufficient amount of loft roll from the gap between the ceiling joists to access the eaves.
- » Place the RWPI between the joists with the insulation on the bottom and the tray on the top and with the end of the tray with the strap towards you.
- » Push the RWPI towards to eaves junction, and over any elements that may be in the way e.g. wall plate.
- » Push the product down into the soffit at least over the wall plate ensure that the RWPI and the soffit or wall insulation is continuous and the soffit vents aren't blocked.
- » Angle the tray upwards so that it is in line with the rafters, allowing room for the roof membrane to drape if present.
- » Staple or nail the strap to the inner surfaces of the rafters. The strap can be trimmed to leave a neat finish, if desired.
- » Lay the loft roll up to the back of the RWPI, ensure that there are no gaps between the insulation.
- » At the end of a run, where the gap between the ceiling joists may be smaller, open the polythene bag, cut the insulation to size and reseal using duct tape. The product can then be fitted as normal.

Thermal Bridging

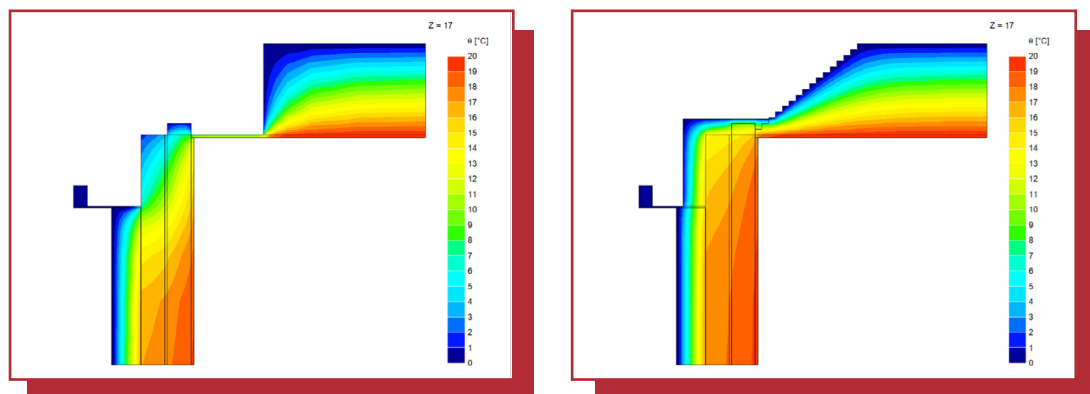
The ARC Retrofit Wall Plate Insulator can significantly reduce the thermal bridging at the eaves junction. The Psi value is a measure of how much heat is escaping through the thermal bridge when compared to the plane elements of a building fabric and can be found in BR 497. The surface temperature factor provides an indication of how significant a cold spot on the internal surface of a wall is and is defined in BRE IP1/06.

Reducing thermal bridging can increase the temperature of the internal surfaces in turn reducing the risk of interstitial condensation and mould.

Below are some heat maps from a case study demonstrating the improvement in heat distribution due to the addition of insulation over the wall plate which can be achieved by installing the ARC RWPI. In this study, an increase of 54% was observed in the surface temperature factor and a reduction of 98% in the Psi value.

Please note that these calculations are for reference purposes only and individual details will require calculations to determine the Psi value and Temperature Factor. Please contact our customer support for further information regarding dimensions if required.

Heat Maps



Key Stats

Tray Widths	300mm to 600mm
Insulation	Glass fibre mineral wool
Ventilation Maintained	10,000mm ²

Product & Packaging Specifications

Before placing an order, please ensure that it is possible to install the product over the wall plate and into the soffit. If this is not possible, the ARC Retrofit Eaves Insulator may be better suited to your application.

The RWPI is suitable for all roof pitches above 15°. Due to the variability of rafter spacing, it is important to measure the gap between the rafters in the property and to ensure this gap is regular, so that the correct product can be ordered.

The depth of the rafters often determines the gap created over the wall plate, some compression of the ventilation tray and the insulation is acceptable although discouraged as it will affect the efficacy of the ARC RWPI. Ensure a minimum rafter depth of 95mm.

The ARC RWPI is also suitable for sloped ceiling details, please get in touch and we can supply a case study to you.

Please use the table below to determine which product is suitable for your application. It is important to note that the product is designed to be suitable whether rafters are in-plane or out-of-plane with the ceiling joists. The rafter gap is defined as the distance between adjacent rafters.

Product Code	Rafter Gap	Insulation Dims, mm (WxLxD)	Tray Size, mm (WxLxD)
RWPI300S	Larger than 275mm, up to and including 300mm	300x600x50	S (200x900x55)
RWPI350S	Larger than 300mm, up to and including 350mm	350x600x50	S (200x900x55)
RWPI400S	Larger than 350mm, up to and including 400mm	400x600x50	S (200x900x55)
RWPI450S	Larger than 400mm, up to and including 450mm	450x600x50	S (200x900x55)
RWPI500L	Larger than 450mm, up to and including 500mm	500x600x50	L (400x900x55)
RWPI550L	Larger than 500mm, up to and including 550mm	550x600x50	L (400x900x55)
RWPI600L	Larger than 550mm, up to and including 600mm	600x600x50	L (400x900x55)

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

Standards

The non-combustible glass mineral wool insulation used in the ARC RWPI has a thermal conductivity of 0.035W/m.K and is classified as Euroclass A1 non-comustable accordig to EN 13501-1.

Storage & Packaging

ARC RWPI's are supplied in polythene packs which are designed for transporting and protecting the products. It is not recommended that the packs be stored in direct sunlight. When storing the products 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

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.

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. Due to the protective polythene, the product as a whole cannot be classified as A1 non-combustible.

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