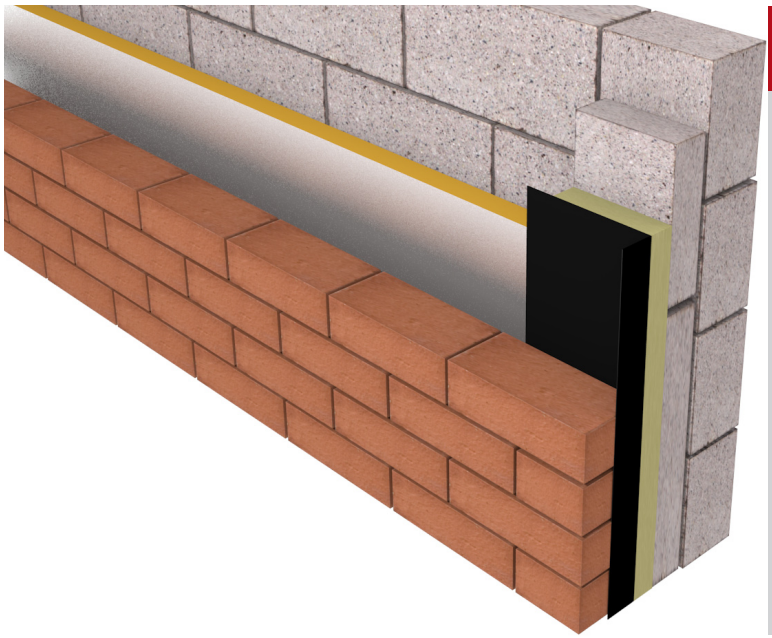
V2.1 20.10.2014

Rockfibre Insulated DPC



Key Features

- Four hours fire integrity - Warrington Fire Research test
- Easy to install
- Prevents cold bridging
- Meets Part B and Part L of the building regs

Description

The ARC Rockfibre Insulated DPC has been developed to close off cavities around window and door openings where a fire rating is required and is intended to be used in conjunction with a return block. As well as excellent fire properties, the ARC Rockfibre Insulated DPC will also help to prevent cold bridging around openings.

Installation

ARC Rockfibre Insulated DPCs are easy to install as the brickwork progresses before the window or door has been installed, with the DPC sitting against the outer brickwork to prevent moisture penetration. When joining it is recommended the DPC should be fully lapped by at least 100mm with the insulation tightly butted to ensure no breaks are present.

Fire Properties

ARC Rockfibre Insulated DPCs are manufactured using rockfibre mineral wool which achieves a fire classification of Euroclass A1 as defined in BS EN 13501-1. Fire testing was carried out at Warrington Fire Research achieving up to 4 hours fire integrity. The Insulated DPCs are tested to BS 476: Part 20: 1987 and BSEN 1366-4: 2006, using the test method stated EGOLF TC2 N421 (Fire Resistance for Cavity Barriers).
Warrington Fire Research certificate number: 189654

Thermal Properties: Cold Bridging

Cold bridges are sections through the fabric of significantly lower thermal resistance than the rest of the construction. It is most commonly found around window and door openings and usually shows itself through so called pattern staining. A cold bridge through an external frame attracts moisture in the form of surface condensation which attracts dirt and dust. This surface condesation can also lead to mould growth and damage to internal plaster and paint work.

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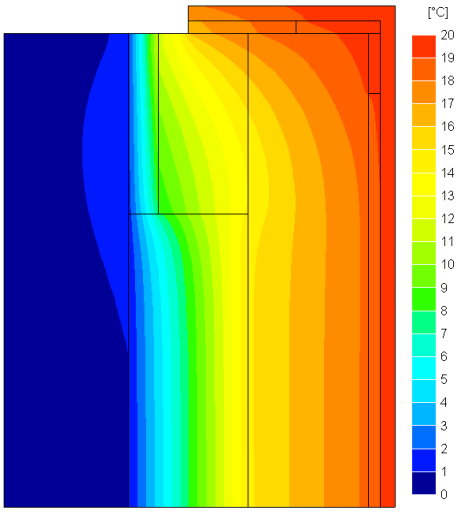
Solution

ARC Rockfibre Insulated DPCs will significantly reduce the risk of cold bridging around window and door openings when fitted in accordance with the manufacturer's recommendations.

Detail	Default F-value	F-value with ARC RF Insulated DPC	Default Ψ-value	Ψ-value with ARC RF Insulated DPC
Jamb (100mm cavity)	0.75	0.890	0.05	0.04
Sill (100mm cavity)	0.75	0.899	0.04	0.04

As can be seen in the above table, the F-values with an ARC Rockfibre Insulated DPC fitted far exceed the value of 0.75 specified in IP1/06 to avoid mould growth, and likewise the Ψ-values are well below the default values specified. ARC products have been assessed using software that complies with the Standard for Thermal Bridge Calculations BS EN ISO 10211-2007. The conventions for calculations specified in the BRE document BR497 were also followed. The results are compared with the criteria set in the BRE Information Paper IP1/06 'Assessing the Effects of Thermal Bridging at Junctions and Around Openings' which is referenced in Building Regulations.



Above: Temperature distribution illustrating heat loss at a window opening where ARC Insulated DPC is fitted.

Standards

ARC Rockfibre Insulated DPCs are manufactured using rockfibre mineral wool which conforms to BS EN 13162: 2001 Thermal Insulation Products for Buildings, Factory Made Mineral Wool Products specification. The polythene DPC is manufactured to BS 6515.

Storage and Packaging

ARC Rockfibre Insulated DPCs are supplied in polythene packs which are designed for transporting and protecting the products. When storing the product for longer periods of time it is recommended the product should be stored indoors, or under cover.

Environment

ARC's rockfibre mineral wool has no CFCs or HCFCs involved in the manufacturing process and represents no known threat to the environment, and is classed as zero ODP and zero GWP.

ARC Rockfibre Insulated DPCs have a Green Guide rating of A+.

Dimensions & Packaging Spec

Insulation Dimensions	DPC: Polyethylene to BS6515	Pack Qty
100 x 30 x 1200mm	165 x 1300mm	20
140 x 30 x 1200mm	225 x 1300mm	20

Non standard sizes are available on request.

Health and Safety

ARC Building Solutions has an approved Health and Safety Policy and is committed to working and supplying products safely. 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.