



Certificate No: EWW330



This certificate is valid for Building Regulations & associated technical guidance in force on the date of registration and for the regulations in the countries indicated

Low-E UK Ltd - Low-E Perf Reflective Insulation

Description of Product

Low-E Perf is a reflective insulation consisting of a 5.5mm thick foam core, aluminium faced both sides.



Key Factors Assessed

- Mechanical Resistance & Stability
- Safety in case of Fire
- Health, Hygiene and Environmental
- Safety in Use
- Energy Economy and heat retention

Validity

This certificate was first issued on 21st March 2014 and is valid until 4th April 2019
Issue Dated 20th March 2018

Scope of Registration

Low-E Perf Reflective Insulation is a reflective insulation consisting of a 5.5mm thick foam core, aluminium faced both sides and is designed to allow moisture transmission.

The product should be used in a prescribed manner and location as indicated by the manufacturer and installed according to their instructions and manuals.

The product should be used in conjunction with other insulation materials to achieve the required thermal properties.

It is critical that a minimum 12mm air-space is retained on either side of the product.

Insulation Product Type	1	
Test Method	BS EN 12667 : 2001	
Thermal conductivity (λ)	0.0366	W/m/k
Emissivity	0.05	
Water vapour resistance	0.11	MNs/gm
Fire performance	Class 1	BS 476-6
Fire performance	Class A	ASTM E84
Fire performance	Class E default	BS EN 13501-1
Product Thickness	5.5	mm
Core RD value (thermal resistance)	0.150	M2K/W
Core RD value with 2 air space (Down)	2.97	M2K/W
Core RD value with 2 air space (Up)	1.28	M2K/W
Core RD value with 2 air space (Horiz)	1.43	M2K/W
Air space thickness	>20	mm
Width	1.25	m
Weight	150	g/m2
Roll length	4/8/12/16/32	m

Conditions of Certificate

Installation to be in strict accordance with manufacturers guides and recommendations and supported by relevant U-value calculations incorporating material thermal properties as declared.

The U-value of the elements will depend on the thickness of additional insulation used, the extent and arrangement of timber bridging and the insulation value of other components/ layers details of which can be found in manufacturer's literature.

It is critical that a minimum 12mm air-space is maintained either side of the product.

The insulation must not be carried over junctions between roofs and walls required to provide a minimum period of fire resistance. The continuity of fire resistance must be maintained, for example as described in Approved Document B.

The products should be used in a prescribed manner and location as indicated by the manufacturer and installed according to their instructions and manuals.

The product should be used in conjunction with other insulation materials.

LABC consider that, Low-E Perf, if used in accordance with the provisions of this Certificate, will meet the functional requirements of the Building Regulations (listed below) if the criteria detailed in this certificate are met;



The Building Regulations 2010 (as amended) England & Wales

Regulation 7	Materials and workmanship
Note:	The products are acceptable.
AD B	Fire Safety
Note:	Subject to limitations detailed in Conditions section.
AD C	Site preparation and resistance to contaminants and moisture
Note:	Subject to limitations detailed in Conditions section.
AD L1B	Conservation of fuel and power
Note:	The thermal insulation performance of this system should be considered in the context of the contribution made to the overall performance of the roof structure.



The Building Regulations 2010 (as amended) England

AD L1A	Conservation of fuel and power
Note:	The thermal insulation performance of this system should be considered in the context of the contribution made to the overall performance of the roof structure.



The Building Regulations 2010 (as amended) Wales

AD L1A	Conservation of fuel and power
Note:	The thermal insulation performance of this system should be considered in the context of the contribution made to the overall performance of the roof structure.



The Building (Scotland) Regulations 2004 (as amended)

If you would like to discuss a specific use of the product in Scotland it will require an additional assessment under the Scottish Building Regulations and accordingly you should contact the LABSS STAS Administrator at www.labss.org

Non-Regulatory Information



LABC Warranty

This product confirms to the Functional Requirements of the LABC Warranty Technical Manual.

Supporting Documentation

Low E Trade Literature and Technical Manual, product details, practical application, standard details and technical information.
BBA Test Report No. 5642 Low-E aluminium foil insulation (Emissivity, air permeability, nail tear, mass per unit area, thickness, composition, tensile properties, water vapour permeability) – 17 October 2008

University of Salford Hot Box Test Technical Report Ref No. TT12/123 - 1 March 2012

NPL Hot Box Test Report Ref No: PP31/Eo6110067-Thermal Transmittance of a Structure Insulated With Low-E Insulation Using Three Different Heat Flow Directions – 1 February 2007

University of Salford Core Resistance Test Report Ref No. TT12/105 – 13 January 2012

NPL Core Resistance Test Report Ref No. PP21/E06110206/3 – 8 January 2007

University of Salford Core Resistance Test Report Ref No. TT13/170 – 11 June 2013

University of Salford Core Resistance Test Report Ref No. TT13/236 – 4 November 2013

R & D Services Test Emissivity Test Report No. RD11505 – R1 – 13 October 2011

PRI-CMT Emissivity Test Report No: CLAM-001-02-01 – 29 March 2012

PRI-CMT Emissivity Test Report No: CLAM-005-02-01- 15 August 2013

Exova Warrington Fire Test Report Document Reference 304033 – 21 February 2011

4ward Testing Ltd Certificate of Test for Water Vapour Transmission Cert No. C2657 – 25 February 2011

R & D Services Test Report for Fungi Resistance July 2001

R& D Services Corrosivity Test Report September 2001

BBA Agreement Certificate 11/4819 Product Sheet 1, 2 and 3 (Low-E Foil Insulation for pitched roofs, dry linings and floors).

U value calculations to BS EN ISO 6946

Condensation Risk Analysis according to BS EN ISO 13788

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