

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

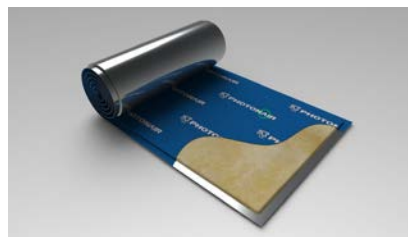
## Thermic Technology Ltd - PhotonAir

### Description of Product

This is an assessment of PhotonAir a breathable lightweight thin flexible insulation that incorporates breathable roofing felt. It is constructed from a 33mm core of high performance mineral wool encased in perforated reflective lower layer and breathable felt upper layer.

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.



### Key Factors Assessed

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

### Validity

This certificate was first issued on 17<sup>th</sup> April 2015 and is valid until 17<sup>th</sup> April 2016

Issue Dated 17<sup>th</sup> April 2015

## Scope of Registration

This registered System relates to PhotonAir a breathable reflective flexible insulation by Thermic Technology Ltd. 17 applications have been assessed.

This is an assessment of PhotonAir breathable insulation system for use on roofs and timber frame walls. Additional insulation is required to achieve required U values in accordance with Approved Document L.

U value calculations have been undertaken showing conformity with guidance in BS EN 16012 with a maximum 13mm air gap below insulation. Exceptions where gap exceeds 13mm have been attributed same R value as 13mm gap.

U value calculations and condensation risk analysis have been independently verified.

Thermic Technology Ltd are registered under ISO 9001 for design and manufacture of thin reflective insulation. Multifoils do not require CE marking.

Manufacturers details must be followed to facilitate compliance.

When the product is to be used on Historic/listed buildings an agreement should be sought between the Conservation Officer and Building Control Surveyor for the appropriate solution to ensure character of building is not affected by proposed works.

## Conditions of Certificate

Installation to be in strict accordance with manufacturer's instructions, guides and recommendations and supported by relevant u-value calculations (incorporating material thermal properties as declared) and condensation risk analysis.

The overall U-value is dependant on the thickness of the additional insulation used and the arrangement of layers/components used details of which can be found in manufacturer's literature.

PhotonAir must be installed reflective side facing in. PhotonAir is installed horizontally from left to right (ridge to eaves or eaves to ridge). The left hand side of PhotonAir is fitted in place with staples of at least 14mm, and the PhotonAir unrolled across the rafters.

Each layer of PhotonAir must butt-join the previous layer, with the 150mm membrane overlap running onto the lower layer, thus ensuring that any water runs down the roof slope without penetrating between layers. The membrane overlap on the bottom layer of PhotonAir should extend onto a suitable eaves carrier. Additional breather membrane may be used to cover the gaps between PhotonAir and the eaves carrier if required.

PhotonAir is easily cut with sharp scissors (Kretzer Finny recommended) or sharp knife against a board.

LABC consider that, PhotonAir 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 product is acceptable
AD C	Site preparation and resistance to contaminants and moisture
Note:	The product is acceptable
AD L1 B	Conservation of fuel and power
Note:	The product is acceptable



### The Building Regulations 2010 (as amended) England

None presently



### The Building Regulations 2010 (as amended) Wales

None presently



### 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](http://www.labss.org)

## Non-Regulatory Information



### LABC Warranty

The use of the PhotonAir System has not been assessed to meet the requirements of the LABC Warranty Technical Manual. If you would like to discuss a specific use please make an enquiry to [technical.services@labcwarranty.co.uk](mailto:technical.services@labcwarranty.co.uk)

## Supporting Documentation

BTTG 11/20072 Water Vapour Permeability – ISO 12572.

BTTG 27/03336/10/14 Fire test BS EN 11925-2.

BDA KEUR 0272-L-12/1 determination of the hemispherical emissivity to BS EN 16012:2012

BBA 07/4435 Agrément Certificate Klober Permo Air under tiling membrane.

Klober PermoAir datasheet

KU 0045 Klober Declaration of performance

Superglass OEM Roll datasheet.

Thorhelical Warm Roof Fixings Guide

PhotonAir Fixing Instructions Feb 2015.

PhotonAir List registered details Feb 2015.

PhotonAir LABC RD Application Assessment Schedule

PhotonAir perforation size

PhotonAir Supporting Calcs- Emissivity

PhotonAir Supporting Information for Registered Details Application.

RNB\_600\_PA33\_DG\_0.16. New Roof 0.16 rafter spacing 600mm centres 33mm PhotonAir draped over rafters with 170mm Glasswool between rafters. (including installation instructions, U value and condensation risk analysis).

RNB\_400\_PA33\_DG\_0.16. New Roof 0.16 rafter spacing 400mm centres 33mm PhotonAir draped over rafters with 190mm Glasswool between rafters. (including installation instructions, U value and condensation risk analysis).

RNB\_600\_PA33\_CP\_0.16. Re-Roof 0.16 rafter spacing 600mm centres 33mm PhotonAir taugth over rafters with 120mm PIR between rafters. (including installation instructions, U value and condensation risk analysis).

RBC\_400\_PA33\_CP\_0.18. Barn Conversion Roof 0.18 rafter spacing 400mm centres 33mm PhotonAir taugth over rafters with 110mm PIR between rafters. (including installation instructions, U value and condensation risk analysis).

RBC\_400\_PA33\_DP\_0.18. Barn Conversion Roof 0.18 rafter spacing 400mm centres 33mm PhotonAir draped over rafters with 80mm PIR between rafters. (including installation instructions, U value and condensation risk analysis).

RBC\_600\_PA33\_CP\_0.18. Barn Conversion Roof 0.18 rafter spacing 600mm centres 33mm PhotonAir taugth over rafters with 95mm PIR between rafters. (including installation instructions, U value and condensation risk analysis).

RBC\_600\_PA33\_DP\_0.18. Barn Conversion Roof 0.18 rafter spacing 600mm centres 33mm PhotonAir draped over rafters with 75mm PIR between rafters. (including installation instructions, U value and condensation risk analysis).

RPR\_400\_PA33\_DG\_0.18. Re-Roof 0.18 rafter spacing 400mm centres 33mm PhotonAir draped over rafters with 160mm Glasswool between rafters. (including installation instructions, U value and condensation risk analysis).

RPR\_600\_PA33\_DG\_0.18. Re-Roof 0.18 rafter spacing 600mm centres 33mm PhotonAir draped over rafters with 150mm Glasswool between rafters. (including installation instructions, U value and condensation risk analysis).

RPR\_600\_PA33\_CP\_0.18. Re-Roof 0.18 rafter spacing 600mm centres 33mm PhotonAir taugth over rafters with 100mm PIR between rafters. (including installation instructions, U value and condensation risk analysis).

RPR\_400\_PA33\_CP\_0.18. Re-Roof 0.18 rafter spacing 400mm centres 33mm PhotonAir taugth over rafters with 120mm PIR between rafters. (including installation instructions, U value and condensation risk analysis).

RNB\_400\_PA33\_CP\_0.16. Re-Roof 0.16 rafter spacing 400mm centres 33mm PhotonAir taugth over rafters with 140mm PIR between rafters. (including installation instructions, U value and condensation risk analysis)

RHR\_400\_PA33\_CP\_0.32. Historic Re-Roof 0.32 rafter spacing 400mm centres 33mm PhotonAir taugth over rafters with 50mm PIR between rafters. (including installation instructions, U value and condensation risk analysis).

RHR\_400\_PA33\_DN\_0.60. Historic Re-Roof 0.60 rafter spacing 400mm centres 33mm PhotonAir draped over rafters. (including installation instructions, U value and condensation risk analysis).

RHR\_600\_PA33\_CP\_0.30. Historic Re-Roof 0.30 rafter spacing 600mm centres 33mm PhotonAir taugth over rafters with 50m PIR between rafters. (including installation instructions, U value and condensation risk analysis).

RHR\_600\_PA33\_DN\_0.59. Historic Re-Roof 0.59 rafter spacing 600mm centres 33mm PhotonAir draped over rafters. (including installation instructions, U value and condensation risk analysis).

WTF\_140\_PA33\_CG\_0.18. Timber frame wall 0.18. 140mm studs 600mm centres 33mm PhotonAir, 140mm Glasswool between studs. 24.5mm Celotex PL4015 insulating plasterboard. (including installation instructions, U value and condensation risk analysis).

## Contact Information

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