

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

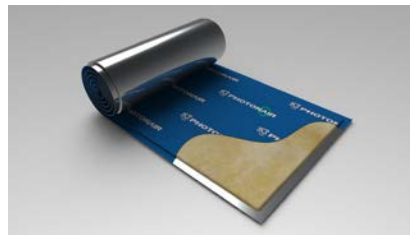
## Thermic Technology Ltd - PhotonAir

### 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 2020

Issue Dated 3<sup>rd</sup> April 2019

## 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.

Insulation Product Type	1	
Test Method	BS EN 13162:2012	
Thermal resistance ( $\lambda_{90/90}$ )	0.034	W/m/k
Emissivity	0.05	
Water vapour resistance	0.22	MNs/gm
Fire performance	Class D	
Product Thickness	33	mm
Core RD value (thermal resistance)	0.97	M2K/W
Core RD value with 1 air spaces	1.60	M2K/W
Core RD value with 2 air spaces	2.30	M2K/W
Air space thickness	$\geq 13$	mm
Direction of heat flow when tested	Taken as horizontal	
Width	1.2	m
Weight	790	g/m <sup>2</sup>
Roll length	10	m

## 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.

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

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.



### 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.



### 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 build and extension; no change in roof height

RNB\_400\_PA33\_CP\_0.16 Re-roofing social and private housing; small change in roof height

RNB\_400\_PA33\_DG\_0.16 New Build and extension; no change in roof height

RNB\_600\_PA33\_CP\_0.16 New build and extensions, small change in roof height

RBC\_400\_PA33\_CP\_0.18 Barn Conversion with exposed rafters; small change in roof height

RBC\_400\_PA33\_DP\_0.18 Barn Conversion with exposed rafters; no change in roof height

RBC\_600\_PA33\_CP\_0.18 Barn Conversion with exposed rafters; small change in roof height

RBC\_600\_PA33\_DP\_0.18 Barn Conversion with exposed rafters; no change in roof height

RPR\_400\_PA33\_DG\_0.18 Re-roofing social and private housing; no change in roof height

RPR\_600\_PA33\_DG\_0.18 Re-roofing social and private housing; no change in roof height

RPR\_600\_PA33\_CP\_0.18 Re-roofing social and private housing; small change in roof height

RPR\_400\_PA33\_CP\_0.18 Re-roofing social and private housing; small change in roof height

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 Re-roofing historic buildings and public buildings; small change in roof height

RHR\_400\_PA33\_DN\_0.60 Re-roofing historic buildings and public buildings; single layer PhotonAir; no change in roof height

RHR\_600\_PA33\_CP\_0.30 Re-roofing historic buildings and public buildings; small change in roof height

RHR\_600\_PA33\_DN\_0.59 Historic building and public building re-roof, single layer PhotonAir; no change in roof height

WTF\_600\_PA33\_CG\_0.18 Timber frame wall with rainscreen cladding, 140mm studs at 600mm centres fully filled with glasswool; PhotonFoil between external sheathing board and rainscreen cladding

## Contact Information

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