Certificate No: EW560

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

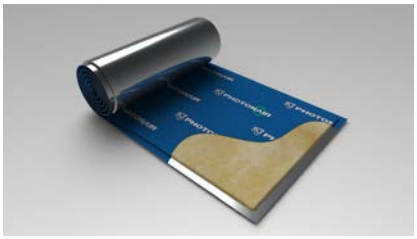
Description of Product

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.

Please consult the 'Conditions of Certificate' and 'Non-Regulatory Information' sections to see if the system is acceptable for use on sites covered by LABC Warranty.



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 17th April 2015 and is valid until 17th September 2021

Issue Dated 18th November 2020

LABC | 66 South Lambeth Rd | London | SW8 1RL
T: 0207 0916865 | DD: 07850 307601 | F: 0207 0916879 | www.labc.uk.com/registereddetails

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 (λ90/90)	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	≥ 13	mm
Direction of heat flow when tested	Taken as horizontal	
Width	1.2	m
Weight	790	g/m2
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.

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.

Regulations

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

Non-Regulatory Information

LABC Warranty

The product has not been assessed by LABC Warranty.

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 taught 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

RNB_400_PA33_CP_0.16 Re-Roof 0.16 rafter spacing 400mm centres 33mm PhotonAir taught 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 taught 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 taught 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

Thermic Technology Limited
Unit 16
Moorland Gate Business Park
Cowling Road
Chorley
PR6 9FE
Tel: 01257 241084
Email: info@thermictechnology.co.uk
Web: www.thermictechnology.co.uk