Certificate No: EW364

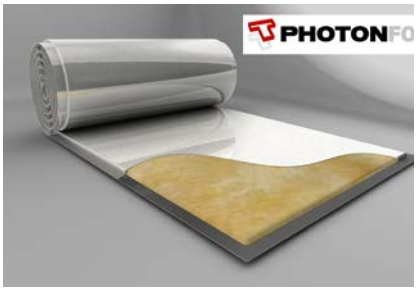
This certificate is valid for Building Regulations & associated technical guidance in force on the date of registration and for the regulations in the countries indicated

Thermic Technology Ltd - Photon Foil V33

Description of Product

Photon Foil V33 is a lightweight flexible multi foil which is a vapour control layer and air leakage barrier. It is constructed from a 33mm core of high performance mineral wool encased in very low emissivity outer layers.

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

- 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 17th December 2013 and is valid until 4th September 2021.
Issue Dated 18th November 2020

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Scope of Registration

Photon Foil V33 is a lightweight flexible multi foil which is a vapour control layer and air leakage barrier. It is constructed from a 33mm core of high performance mineral wool encased in very low emissivity outer layers.
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 20mm air-space is retained on either side of the product.

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	>6000	MNs/gm
Fire performance	Class E	
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	1200	g/m2
Roll length	10	m

Conditions of Certificate

Use on warm side of structure only to avoid condensation risks as shown on individual details
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 20mm 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.
Photon Foil is normally applied across the rafters/studs but can be applied vertically if the rafter/stud layout makes this more effective.
Photon Foil can be simply held in place by staples of at least 14mm depth.
Photon Foil has a 50mm flaps on both edges which allows it to be butted up to itself and taped either with a specified double sided tape under the flap or a single sided tape on the overlap.
o Double-sided tape : SteraTape 2331F
o Single-sided tape : Henkel All-Purpose Duck tape
Photon Foil is easily cut with sharp scissors (Kretzer Finny recommended) or sharp knife against a board.
Junctions with wall plates, eaves and walls should be carefully taped/stapled to ensure no air leakage and that unventilated air spaces are achieved.

Regulations

LABC consider that, Photon Foil V33, 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

The product has not been assessed by LABC Warranty.

Supporting Documentation

CFR_0.16_400_38_G Cold deck flat roof with PhotonFoil below joists and additional insulation between joists
CFR_0.16_400_38_P Cold deck flat roof with PhotonFoil below joists and additional insulation between joists
CFR_0.16_400_47_G Cold deck flat roof with PhotonFoil below joists and additional insulation between joists
CFR_0.16_400_47_P Cold deck flat roof with PhotonFoil below joists and additional insulation between joists
CFR_0.16_600_38_G Cold deck flat roof with PhotonFoil below joists and additional insulation between joists
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CFR_0.18_600_47_G Cold deck flat roof with PhotonFoil below joists and additional insulation between joists
CFR_0.18_600_47_P Cold deck flat roof with PhotonFoil below joists and additional insulation between joists
RUN_0.16_400_38_G Pitched roof with PhotonFoil below rafters and additional insulation between rafters
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RUN_0.16_400_47_G Pitched roof with PhotonFoil below rafters and additional insulation between rafters
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RUN_0.18_600_47_G Pitched roof with PhotonFoil below rafters and additional insulation between rafters
RUN_0.18_600_47_P Pitched roof with PhotonFoil below rafters and additional insulation between rafters
WDC_0.19_600_38_P Dormer cheek with tile cladding, 100mm studs at 600mm centres part filled with PIR; PhotonFoil across inside of studs
WDC_0.22_600_38_G Dormer cheek with tile cladding, 100mm studs at 600mm centres fully filled with glasswool; PhotonFoil across inside of studs

WDW_0.17_600_38_P Dwarf wall, 100mm studs at 600mm centres part filled with PIR; PhotonFoil across inside of studs
WDW_0.20_600_38_G Dwarf wall, 100mm studs at 600mm fully filled with glasswool; PhotonFoil across inside of studs
WTF_0.17_600_38_G Timber frame wall with blockwork cladding, 140mm studs at 600mm centres fully filled with glasswool; PhotonFoil across inside of frame
90/90 confirmation for glasswool core Letter from Superglass confirming 90/90 testing of core glasswool.
Aged emissivity test Test report verifying emissivity of PhotonFoil
Air permeability test report Test report verifying air permeability of PhotonFoil
Confirmation of 0.32 for glasswool core Letter from Superglass confirming the value for the core glasswool used in calculations
Fire Test Test report verifying fire classification of PhotonFoil
IS0 9001 Certificate confirming ISO 9001 accreditation for Superglass (covering glasswool core)
Kingspan details. Details from Kingspan confirming values used in calculations
SuperGlass CE Certificate Certificate confirming CE status for Superglass (covering glasswool core)
Calculation explanation of method Supporting information which shows conventions used in the calculations
Vapour permeability test Test report verifying vapour permeability of PhotonFoil

Contact Information

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