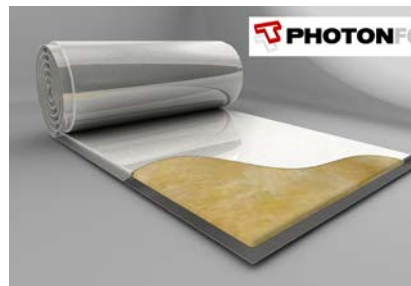


This certificate is valid for Building Regulations & associated technical guidance in force on the date of registration and for the regulations in the countries indicated

## Thermic Technology Ltd – PhotonFoil-A1

### Description of Product

PhotonFoil-A1 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.



### 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 30<sup>th</sup> January 2020 and is valid until 30<sup>th</sup> January 2021.

Issue Dated 30<sup>th</sup> January 2020

## Scope of Registration

PhotonFoil-A1 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 ( $\lambda_{90/90}$ )	0.034	W/m/k
Emissivity	0.05	
Water vapour resistance	4000	MNs/gm
Fire performance	Class A1	
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	1202	g/m <sup>2</sup>
Roll length	10	m

## Conditions of Certificate

PhotonFoil-A1 has been tested to European Classification A1 and can be used in the external walls of buildings, including relevant buildings, as defined in Regulation 7 (4). Care needs to be taken to ensure that other materials used in the external wall system along with PhotonFoil-A1, apart from those excluded by virtue of Regulation 7 (3), also achieve the necessary classification/rating. For more information on the changes to Regulation 7 please click here -

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/795931/AD\\_B\\_Apr2019\\_amend.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/795931/AD_B_Apr2019_amend.pdf)

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 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.

PhotonFoil-A1 is normally applied across the rafters/studs but can be applied vertically if the rafter/stud layout makes this more effective.

PhotonFoil-A1 can be simply held in place by staples of at least 14mm depth.

PhotonFoil-A1 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.

- Double-sided tape : SteraTape 2331F
- Single-sided tape : Henkel All-Purpose Duck tape

PhotonFoil-A1 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.

LABC consider that, PhotonFoil-A1, 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 subject to the Conditions of Certificate.
AD B	Fire Safety
Note:	Subject to limitations detailed in Conditions of Certificate.
AD C	Site preparation and resistance to contaminants and moisture
Note:	Subject to limitations detailed in Conditions of Certificate.
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 or wall 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 or wall 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 or wall 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](http://www.labss.org)

## Non-Regulatory Information



### LABC Warranty

The use of PhotonFoil-A1 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

BRE Global Classification Report Number: Q100799-1003 Issue 1 Dated 20<sup>th</sup> June 2019

CfA BS EN ISO 9001:2015 Certificate Number: 14/4448 Dated 9<sup>th</sup> July 2018

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\_0.16\_600\_47\_P Cold deck flat roof with PhotonFoil below joists and additional insulation between joists

CFR\_0.18\_400\_38\_G Cold deck flat roof with PhotonFoil below joists and additional insulation between joists

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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\_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

ISO 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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