

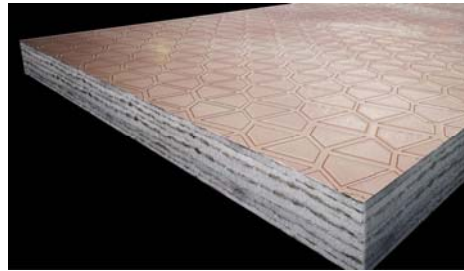
This certificate is valid for Building Regulations & associated technical guidance in force on the date of registration and for the regulations in the countries indicated

## Actis Ltd - HCONTROL HYBRID

### Description of Product

HCONTROL HYBRID is a reflective vapour control layer with a built-in thermal performance for use on the warm side of the building fabric, behind the internal finish usually in roofs, walls and ceilings.

It can be used in conjunction with any type of other insulation. HCONTROL HYBRID is 45mm thick and is available in rolls covering approximately 10m<sup>2</sup> (1600mm wide).



### 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 26<sup>th</sup> June 2014 and is valid until 4<sup>th</sup> April 2019

Issue Dated 31<sup>st</sup> January 2018

## Scope of Registration

HCONTROL HYBRID is installed on the warm side of any insulation material and can be in direct contact with it. HCONTROL HYBRID is airtight and prevents any water vapour diffusion through the structure, if installed as a continuous layer.

- To ensure maximum thermal efficiency, it is recommended to leave an air gap either side of HCONTROL HYBRID, between it and any other parts of the structure (e.g. plasterboard or additional thermal insulation).
- HCONTROL HYBRID is installed with the copper coloured film facing the inside (warm side) of the building.
- Can be installed horizontally or vertically behind the internal finish in roofs, walls and ceilings.
- The product is fixed using corrosion-resistant staples or nails. In the case of installation on a metal frame, double-sided tape is recommended.
- Joints should be overlapped by at least 50mm and sealed with the recommended ACTIS MULTIDHESIF tape.
- In the case of horizontal installation, noggins are recommended as support to the joints to ensure a secure and airtight fixing point.

Test Standard	EN 16012	
Insulation Product Type	3	
Test Method	EN ISO 8990:1996	
Thermal conductivity ( $\lambda$ )	0.024	W/mK
Emissivity	0.06	
Water vapour resistance	>1000	MNs/g
Fire performance	NPD	
Product Thickness	45	mm
Core RD value (thermal resistance)	1.9	M2K/W
RD value with 1 or 2 air spaces	3.2	M2K/W
Air space thickness	20	mm
Direction of heat flow when tested	Horizontal	
Width	1.6	m
Weight	950	g/m2
Roll length	6.25	m

For Scotland purposes:

HControl Hybrid is a multifoil insulation with vapour control function and as such should be installed on the warm side of insulation within construction build-ups.

There may be some installations where the product is used on the cold side of insulation, because of its thermal performance. Such applications will require a specialist vapour control layer to avoid potential interstitial condensation.

While this use of the product is very rare, it is covered by third party certification.

Actis Hybrid products have been tested according to BS EN16012 and have a declared thermal performance of the core and with associated air spaces. Whilst low-emissivity cavities enhance the thermal performance of the overall build-up, they are not a requirement for the products to perform.

BR443 dedicates a whole section to reflective foil products (3.10) multifoil insulation (3.10.2) and airspace resistances (4.8). R-values of airspaces can be calculated according to BS EN ISO 6946.

BBA IB3: 'Reflective foil insulation – Conventions for U-value calculations' - Actis adheres to this convention and recommends batten sizes accordingly with regards to sagging and residual air cavities.

The insulation must not be carried over junctions between roofs and walls, required to provide a minimum period of fire resistance, including around cavity barriers in roof or wall elements. The continuity of fire resistance must be maintained.

Actis does provide project specific condensation risk analysis alongside U-value calculations to verify viability of solutions in accordance with EN 13788, i.e. Glaser method as laid out in BS5250. Some applications may require a specialist vapour control layer, to avoid potential interstitial condensation.

Actis Hybrid products have been independently tested according to BS EN16012.

The products HControl Hybrid and Boost'R Hybrid have been tested with two air cavities and horizontal heat flow. Accordingly the declared R-value of the product with associated air cavities can only be used for applications with horizontal heat flow direction i.e. wall applications. For other applications, the R-value of associated air cavities is calculated according to EN6946 and in line with BR443.

Actis have commissioned an independent assessment (carried out by BM Trada and BRS) of typical construction details utilising the Hybrid range of products. These thermal model junctions quantify the thermal performance of each specific thermal bridge, including temperature factors  $f_{Rsi}$  and thermal transmittance values  $\psi$  (psi-values) in accordance with BR 497 and BS EN ISO 10211: 2007, which can be applied in energy assessments (e.g. SAP calculations).

Hybrid model junctions use different configurations of Actis' Hybrid range of products and confirm that the products HControl Hybrid and Boost'R Hybrid act as thermal blankets and counteract thermal bridging.

## Conditions of Certificate

HControl Hybrid must be used in accordance with the guidance in the installation guidelines and the guidance in the BM Trada Certification sections 4.2 and 9 and The VTT Certificate section 6 and Appendix A and supported by relevant U-value calculations incorporating thermal properties as declared.

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.

HControl Hybrid must not be in contact with a chimney. The product must be isolated from a chimney with a fire resistant material.

The product should be used in a prescribed manner and location as indicated by the manufacturer and installed according to their instructions and manuals.

All products of Actis' Hybrid range can be used separately or together to provide a total insulation system in roofs, walls and loft applications.

Junctions with wall plates, eaves and walls should be carefully taped/stapled to ensure no air leakage and that unventilated air spaces are achieved.

For Scotland purposes:

That the specifications and materials referred to have been assessed in accordance with the Building (Scotland) Regulations 2004 and in accordance with the supporting guidance in the Domestic Technical Handbooks which came into force with effect from 1 October 2015.

That where reference is made on a plan or specification document to any Code of Practice, British or European Standard or manufacturer's instruction it shall be construed as a reference to such publication in the form in which it is in force at the date of this Registered Detail.

That the materials specified shall be for purposes of this Registered Detail and should not be changed without first gaining approval so to do from Local Authority Building Standards Scotland [LABSS]. Failure to do so will invalidate the Registered Detail.

That the Registered Detail shall be valid for a period of 12 months from the date of issue or until otherwise invalidated by formal notice by LABSS. The Registered Detail may be re-validated after 12 months following a request and payment of an annual renewal fee from the Registered Detail Holder.

This Registered Detail should not be regarded as a formal approval under the building warrant process prescribed by the Building (Scotland) Act 2003 enacted from 1 May 2005

That this Registered Detail shall contribute to compliance with relevant Mandatory Standards specified under the Building (Scotland) Regulations 2004 as amended when read with the scope, conditions and regulations sections to this Registered Detail.

For LABC Warranty purposes:

This Product Approval is based on the details and limitations of use described in the current Exova BM TRADA Certification Limited Q-Mark Scheme, Certificate Number CPS-013.

LABC Warranty product approval is based on the current Exova BM TRADA Certification Limited Q-Mark Scheme, Certificate Number CPS-013, remaining in place. Should this lapse, the Warranty Product Approval will be withdrawn.

LABC Warranty accepts the use of Actis HControl Hybrid, provided it is installed, used and maintained in accordance with Chapter 7 of our Technical Manual.

LABC and LABSS consider that, the HControl Hybrid, 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 L	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) England

AD L	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 L	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)

Technical Handbooks Domestic and Non-Domestic

Regulation 8	Durability, workmanship and fitness of materials
0.8.5:	Ways of establishing the fitness of materials
Regulation 9	Building Standards applicable to construction
Note:	Construction shall be carried out so that the work complies with the applicable requirements of schedule 5.

Mandatory

Standard 3.15 Condensation

Note: As per section 10.2.3.1 of the BM Trada certification, compliance with this standard will be demonstrated through the submission of a site specific condensation analysis

Mandatory

Standard 6.1(b) Carbon dioxide emissions

Note: The thermal insulation performance of this product should be considered in the context of the contribution made to the overall performance of the building.

Mandatory

Standard 6.2 Building insulation envelope

Note: The thermal insulation performance of this product should be considered in the context of the contribution made to the overall performance of the building.

## Non-Regulatory Information



### LABC Warranty

LABC Warranty conditionally accepts the use of HControl Hybrid when installed and used in accordance with the Scope and Conditions of this Certificate. Visit [www.labcwarranty.co.uk](http://www.labcwarranty.co.uk) for our LABC Warranty Technical Manual requirements and Warranty conditions of acceptance.

## Supporting Documentation

Approved Document L EN 16012: 2012, Actis,

Technical Documentation Issue 10/07/2013 EN 13984:2013

Actis HControl Hybrid installation guidelines

VTT certificate no VTT-C 9190-12 dated 3.12.2012 and BM Trada Q-Mark Registration Schedule no CPS-013 dated from 04/03/2013

Multifoil template dated 18/04/13 Declaration of Performances No DP-HCONTROL HYBRID version 001-EN

In addition for Scottish purposes:

Details - Pitched roof build up – DRW no TE 426, 431, 432

## Contact Information

Actis Insulation Ltd

Unit 1 Cornbrash Park

Bumpers Way

Bumpers Farm Industrial Estate

Chippenham

Wiltshire

SN14 6RA

Tel: 01249 462 888

Email: [solutions@insulation-actis.com](mailto:solutions@insulation-actis.com)

Web: [www.insulation-actis.com](http://www.insulation-actis.com)