

# HYBRIS, AN INNOVATIVE REFLECTIVE INSULATION

FOR ROOFS, WALLS AND CEILINGS

HYBRID RANGE

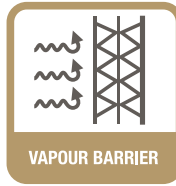


**ACTIS**  
TOMORROW'S INSULATION TODAY

# THERMAL, AIRTIGHT AND ACOUSTIC INSULATION



HYBRIS is intrinsically airtight, stopping air infiltration from the outside and heat loss through convection from the inside.



HYBRIS' external copper-coloured layer is a certified vapour control layer ( $S_d > 90\text{m}$ ,  $Z = 450\text{ MNs/g}$ ) and is intrinsically resistant to vapour.



HYBRIS is resistant to air infiltration; it can effectively control noise and provide sound insulation. A masonry wall with 125mm HYBRIS installed can achieve  $R_w (C; C_{tr}) > = 67.7 (-2; -4)\text{ dB}$ .



HYBRIS has been awarded **LABC** and **LABSS** registered details.

HYBRIS is **NHBC** accepted when used in accordance with its certification.



HYBRIS is **CE marked** and has European Technical Approval **N°13/0121**.



HYBRIS has been fully certified by accredited bodies.



In addition to laboratory testing, HYBRIS has been in-situ tested according to ISO 9869.

HYBRIS is also easy to store and source with a nationwide distribution.



## HYBRIS, A NEW GENERATION OF INSULATION

**HYBRIS is an innovative insulation material for timber frame or masonry walls, pitched roofs, ceiling and suspended timber floor applications.**



WALLS



ROOFS



CEILING

### AN INNOVATIVE TECHNOLOGY

HYBRIS is a reflective insulation product based on a honeycomb structure made of shaped polyethylene foams glued to aluminium coated polyethylene foils. Its high thermal performance is provided by a special structure composed of a large number of low emissivity cavities, protected from dust and excessive air movement. Moreover, the low emissivity external films provide additional thermal resistance, when associated with air cavities.

HYBRIS is available in panels of **1145mm x 1200mm** and in a range of thicknesses from **50mm to 205mm**.

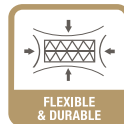
### LIGHT, FLEXIBLE & DURABLE INSULATION

HYBRIS is easily installed between rafters, timber studs or within floor joists. It accurately fits all widths, held in place by compression. Hybris is also durable and doesn't slump down over time.

HYBRIS is light weight, less than  $9.5\text{kg/m}^3$ , thus easy to store and transport.



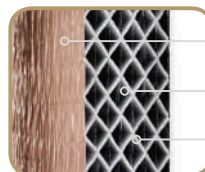
LIGHT



FLEXIBLE & DURABLE



THICKNESS FROM 50-205MM



Reflective vapour control layer

Reflective foils

Polyethylene foams



## A HIGH THERMAL PERFORMANCE INSULATION



**HYBRIS significantly reduces building energy consumption while providing maximum comfort.** With a core declared thermal conductivity ( $\lambda_D$ ) as low as **0.033 W/mK**, HYBRIS provides a thermal resistance as high as **6.20 m<sup>2</sup>K/W** for 205mm.



**Easily recognisable HYBRIS has a copper-coloured internal face with a very low emmissivity of 0.06 (external face  $e = 0.10$ ).** With an air gap on either side HYBRIS can reach a total thermal resistance as high as **7.05 m<sup>2</sup>K/W** for 205mm in a roof application.

THICKNESSES	CORE THERMAL RESISTANCE	ROOF	
		WITH TWO AIR GAPS	WITH ONE AIR GAP
50 mm	1.50	2.35	2.10
60 mm	1.80	2.65	2.40
75 mm	2.25	3.10	2.85
90 mm	2.70	3.55	3.30
105 mm	3.15	4.00	3.75
125 mm	3.75	4.60	4.35
140 mm	4.20	5.05	4.80
155 mm	4.65	5.50	5.25
170 mm	5.15	6.00	5.75
185 mm	5.60	6.45	6.20
195 mm	5.90	6.75	6.50
205 mm	6.20	7.05	6.80



## CLEAN, QUICK & EASY TO INSTALL



**HYBRIS** is classified A+ for internal air quality according to ISO 16000 and is clean to use so doesn't generate dust or fibre while cutting or installing.



**HYBRIS** reduces the installation time without changing installation procedures.

For more info download the installation guideline on [www.insulation-actis.com](http://www.insulation-actis.com) or watch HYBRIS installation videos on **Youtube**.

HYBRIS is easy to cut with an insulation saw, standard hand saw or an electric alligator saw if preferred.

HYBRIS will 'friction fit', no additional fixing is required.



# HYBRID RANGE, A FABRIC FIRST SYSTEM OF THREE INNOVATIVE INSULATION PRODUCTS

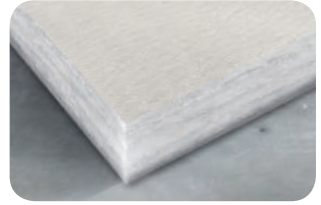
**HYBRIS** can be combined with a vapour control layer, such as **HCONTROL HYBRID** and a breather membrane such as **BOOST<sup>®</sup> HYBRID** to provide a total insulation system in all applications.



**HCONTROL HYBRID**  
R-value 3.20 m<sup>2</sup>K/W



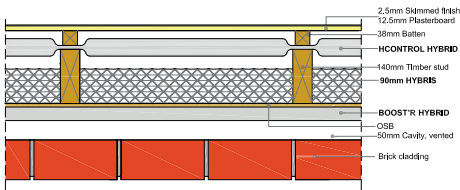
**HYBRIS**  
 $\lambda = 0.033 \text{ W/mK}$



**BOOST<sup>®</sup> HYBRID**  
R-value 2.40 m<sup>2</sup>K/W

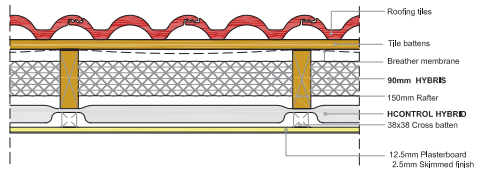
Together they can achieve the best U-value requirements with a minimal thickness compared to standard solutions.

## Example in a timber frame wall



U-value 0.14 W/m<sup>2</sup>K

## Example in a warm pitched roof



U-value 0.18 W/m<sup>2</sup>K

For a more extensive list of solutions and for further technical support please visit:

### U-VALUE SIMULATOR

Discover a unique tool to get a quick simulation of your project by visiting [Hybrid.insulation-actis.com](http://Hybrid.insulation-actis.com)

### VISIT OUR WEBSITE

Please visit [www.insulation-actis.com](http://www.insulation-actis.com) for more details.

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