

ACTIS INSULATION SOLUTIONS



FOR PARK HOMES



ACTIS
TOMORROW'S INSULATION TODAY

PARK HOMES

Park Homes are becoming increasingly popular not only for temporary holiday accommodation, but also for permanent residential units. Many owners have sold their bricks and mortar to buy a park home in the countryside and use their surplus money to enjoy life in a secure community together with like minded people.

Park Homes are prefabricated and often fully equipped off site, before they are transported to their final location. They typically consist of a timber frame construction built on a steel chassis on wheels, which is secured on site with additional support. Historically the construction of these 'buildings' is very simple with low levels of insulation and an overall poor energy performance. However, as more energy efficient buildings become mainstream contemporary Park Home manufacturers provide more advanced solutions.











ACTIS PRODUCTS

HYBRID SYSTEM:

Hybris

An Innovative reflective insulation product providing an excellent thermal performance.



 ATE N° 13/0121	 THERMAL PERFORMANCE	 VAPOUR BARRIER	 ACOUSTIC PERFORMANCE	 FROM 50 TO 205MM
 HIGH PERFORMANCE AIR GAP	 LIGHT	 DUAL PERFORMANCE		













Applications in roofs, walls and floors

Declared thermal performance:
Thermal conductivity: 0.033 W/mK
Declared core thermal resistance: 1.50 m²K/W (50mm HYBRIS) to 6.20 m²K/W (205mm HYBRIS)
Declared emissivity (inner/outer): 0.06/0.10

HControl Hybrid

A thin multifoil insulation product with a built-in vapour control function and an unrivalled thermal performance for use on the warm side of any insulation materials behind the internal finish in roofs, walls and floors.



 COMPLIES WITH EN 13984	 VAPOUR BARRIER	 2 AIR VOIDS OF 20MM	 45MM +/-5MM	 AIRTIGHT
 SPACE SAVING	 AREA	 DUAL PERFORMANCE		



Applications in roofs, walls and floors

Declared thermal performance:
Core thermal resistance: 1.90 m²K/W
Thermal resistance with 2 air cavities of 20mm (heat flow horizontal): 3.20 m²K/W. Upward vertical heat flow: 2.80m²K/W
Declared emissivity after ageing: 0.06

Park Homes are subject to BS 3632 Residential Park Homes. This specification has become the industry norm and gives guidance on thermal insulation, materials, equipment, etc.

According to this standard, U values of thermal elements must be no greater than:

- 0.35 W/m²K for walls
- 0.35 W/m²K for floors
- 0.20 W/m²K for roofs

SAP energy assessments are not required for Park Homes, however the NCC (National Caravan Council) have developed an Energy Efficiency Rating Scheme. This is used by the industry to calculate energy efficiency of Park Homes built to BS 3632. The energy rating calculation focuses mainly on the performance of thermal elements and building services, but also airtightness and ventilation are parameters which define the energy label of the Park Home.

Boost^R Hybrid

A thin multifoil insulation product with a built-in breather membrane function and an exceptional thermal performance for use on the cold side of the building fabric.



Applications in roofs, walls and floors

Declared thermal performance:

Core thermal resistance: 1.35 m²K/W

Thermal resistance with 2 air cavities of 20mm (heat flow horizontal): 2.4 m²K/W

Declared emissivity (inner/outer): 0.05/0.31

OTHER REFLECTIVE INSULATION:

HControl Reflex +

A reflective vapour control layer which also acts as a supplementary insulating material due to its thermal resistance value and high reflective properties.



Applications in roofs, walls and floors

Declared thermal performance:

Core thermal resistance: 0.25m²K/W

Thermal resistance with 2 air cavities of 20mm (horizontal flow): 1.578m²K/W

Thermal resistance with 2 air cavities of 20mm (upward vertical flow): 1.156m²K/W

Declared emissivity: 0.05

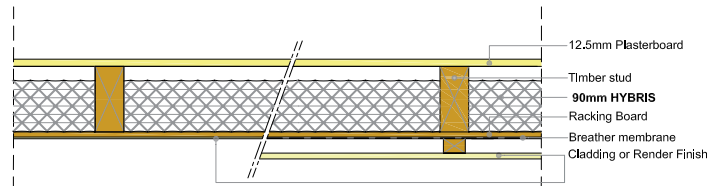
WALL U-VALUE SOLUTIONS

The following are solutions for a basic timber frame construction, typically used for Park Homes. The external finish is usually cladding on timber battens and breather membrane or a render system on carrier board.

The limiting U-value for walls according to BS3 3632:2015 is 0.35W/m²K.

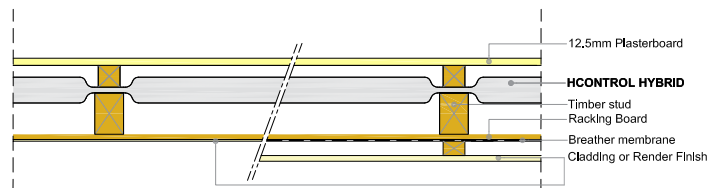
HYBRIS SOLUTIONS

Stud Size [mm]	Hybris	U-value	
		Render on plywood	Cladding on battens
89	75mm	0.43	0.35
	50mm*	0.41	0.35
97	75mm*	0.37	0.33
114	75mm*	0.34	0.29
	90mm	0.35	0.30



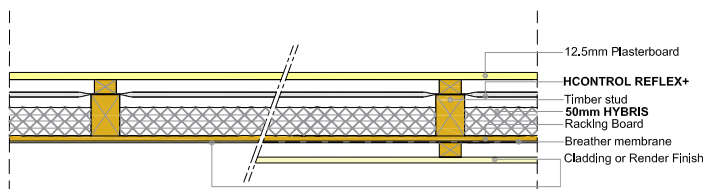
HCONTROL HYBRID SOLUTIONS

Stud Size [mm]	Hybris	U-value	
		Render on plywood	Cladding on battens
63 or 72	HControl Hybrid	0.35	0.31



HYBRID SYSTEM

Stud Size [mm]	Vapour Control Layer	Hybris	U-value	
			Render on plywood	Cladding on battens
72	HControl Hybrid	50mm	0.29	0.26
	Reflective VCL	75mm	0.33	0.29
89	HControl Reflex+	50mm	0.35	0.31
	Reflective VCL	50mm*	0.33	0.29
	HControl Hybrid	50mm	0.25	0.23



* Hybris installed with two associated air cavities. U-value is above requirements

U-value calculations are based on:

EN ISO 6946, BR443, BBA IB3.

Slightly ventilated wall and roof build-ups.

For lower U-value, please refer to ACTIS Timber Frame Wall application guide.

Airtightness: Airtightness levels <1 m³/h.m² are achievable.

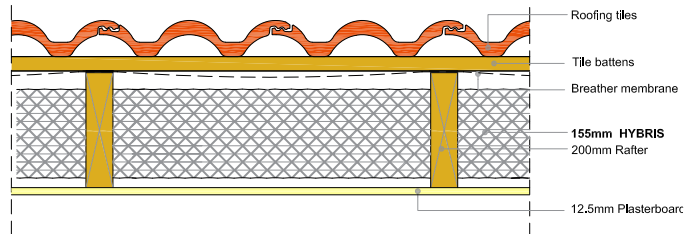
Thermal Bridging: ACTIS Hybrid multifoil insulation products have a dramatic impact on counteracting thermal bridging by acting as thermal blankets. Y-value < 0.22 achievable (down to excellent psi-values).

ROOF U-VALUE SOLUTIONS

The following solutions are for pitched roof constructions typically used for Park Homes i.e. warm pitched roofs with insulation between timber rafters or timber roof trusses with insulation at ceiling level creating a cold roof. **The limiting U-value for roofs according to BS3 3632:2015 is 0.20W/m²K.**

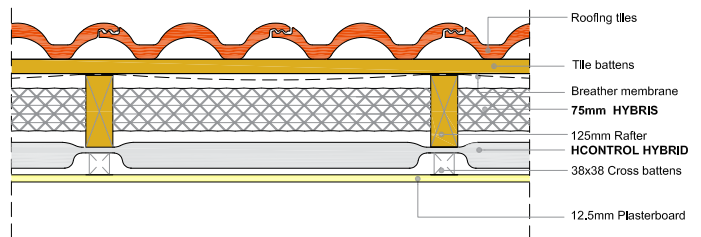
HYBRIS SOLUTIONS

Rafter Size [mm]	Multifoil	Hybris	U-value	
			600mm centres	400mm centres
225	-	170mm	0.18	0.20
200	-	155mm	0.20	0.21



HYBRID SYSTEM

Rafter Size [mm]	Multifoil	Hybris	U-value	
			600mm centres	400mm centres
175	HControl Reflex+	140mm	0.19	0.20
	HControl Reflex+	125mm	0.20	0.21
125	HControl Hybrid	75mm	0.20	0.20
175	Boost'R Hybrid	125mm	0.18	0.19
150	Boost'R Hybrid	105mm	0.20	0.21



U-value is above requirements

U-value calculations are based on:

EN ISO 6946, BR443, BBA IB3.

Slightly ventilated wall and roof build-ups.

For lower U-value, please see Actis Pitched Roof Application Guide.
For applications with insulation at ceiling level, please see ACTIS Ceiling application guide.

Airtightness: Airtightness levels <1 m³/h.m² are achievable.

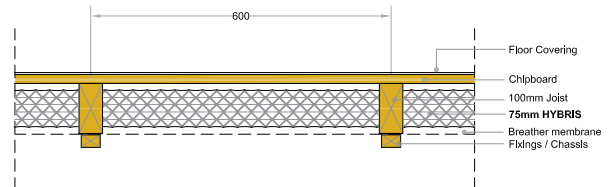
Thermal Bridging: ACTIS Hybrid multifoil insulation products have a dramatic impact on counteracting thermal bridging by acting as thermal blankets. Y-value < 0.22 achievable (down to excellent psi-values).

FLOOR U-VALUE SOLUTIONS

The timber floor construction of a Park Home is typically installed on a steel chassis with wheels. The space between the floor joists is insulated and a membrane provides water tightness. **Limiting U-value for floors according to BS 3632:2015 is 0.35W/m²K.**

HYBRIS SOLUTIONS

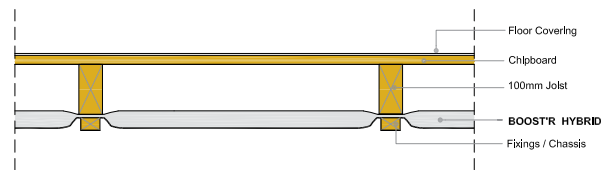
Timber Size [mm]	Hybris	U-value		
		Floor Size		
		Area: 50m ² Perimeter: 33m	Area: 75m ² Perimeter: 38m	Area: 90m ² Perimeter: 40m
100mm @ 400centres	50mm*	0.28	0.27	0.26
	60mm*	0.26	0.25	0.25
	75mm	0.26	0.25	0.25



* The installation of an independent VCL is recommended.

BOOST'R HYBRID SOLUTIONS

Timber Size [mm]	Hybris	U-value		
		Floor Size		
		Area: 50m ² Perimeter: 33m	Area: 75m ² Perimeter: 38m	Area: 90m ² Perimeter: 40m
100mm @ 400centres	Boost'R Hybrid	0.33	0.31	0.30



U-value calculations are based on:

EN ISO 6946, BR443, BBA IB3.

Floor type: Suspended timber floor, Soil: unknown, Wall thickness 147.5mm, U-value of external walls: 0.35W/m²K, wind shielding: average.

Airtightness: Airtightness levels <1 m³/h.m² are achievable.

Thermal Bridging: ACTIS Hybrid multifoil insulation products have a dramatic impact on counteracting thermal bridging by acting as thermal blankets. Y-value < 0.22 achievable (down to excellent psi-values).

BENEFITS OF USING ACTIS HYBRID INSULATION SOLUTIONS

ACTIS Hybrid Range offers higher insulation qualities to the overall fabric of the home, meeting all requirements for BS3 3632 standard.



One stop solution for all u-value requirements for walls, floors and roofs



Cost effective



Airtight insulation reducing thermal bridging



Quick and easy to install allowing for fast construction times offsite



Clean and more pleasant product to handle, no need for Personal Protective Equipment (PPE)



Much less wastage than traditional forms of insulation



More comfortable homes in both summer and winter



Energy saving



Improve the lifespan of the home



Reduce carbon emissions



Can improve health and wellbeing to permanent park home residents, due to warmer homes during the winter months

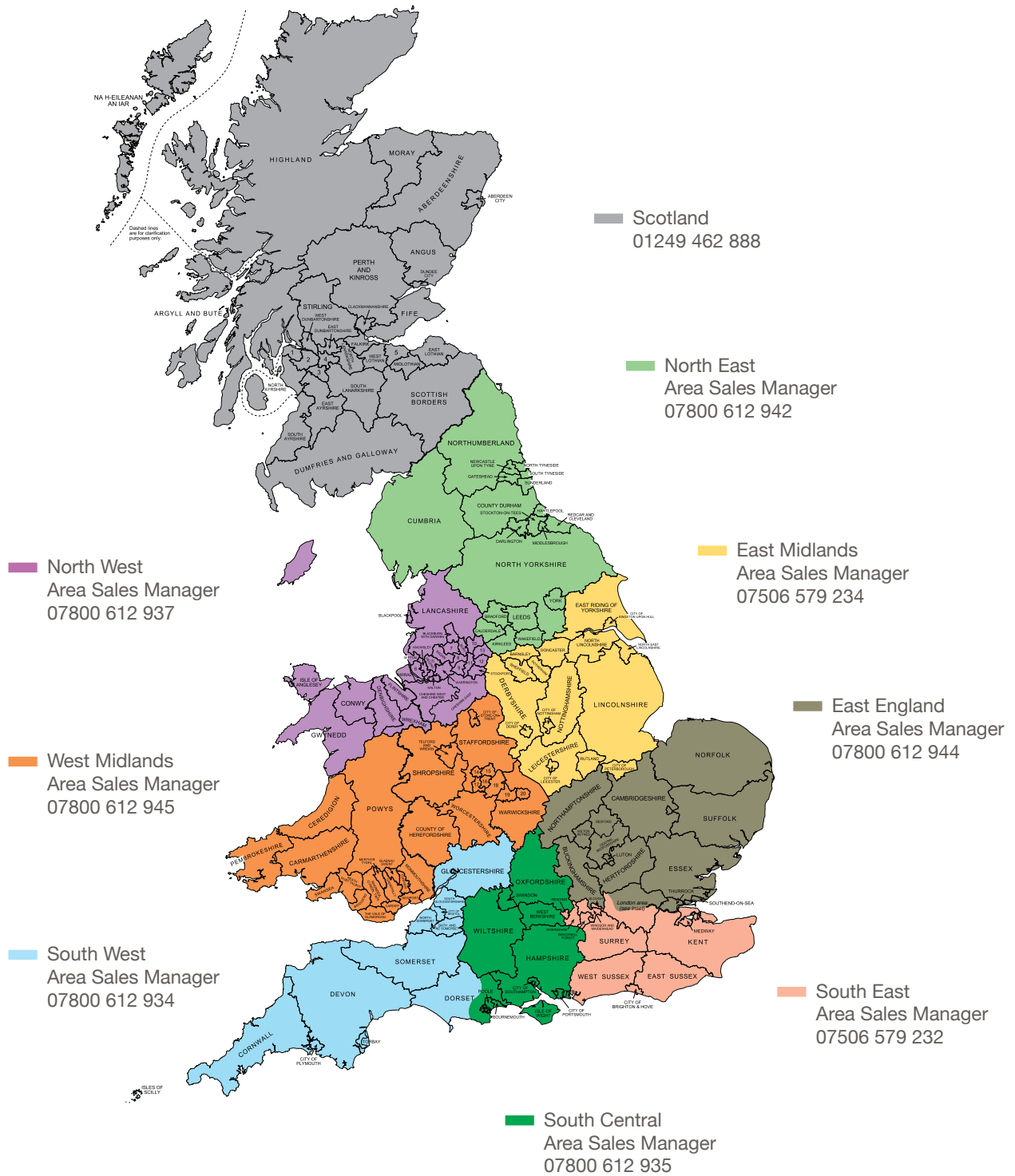


Reduced fuel bills



Acoustic performance

YOUR CONTACTS FOR MORE INFORMATION



U-VALUE SIMULATOR

Discover a unique tool to get a quick simulation of your project by visiting Hybrid.insulation-actis.com

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ACTIS INSULATION LTD.

Unit 1 Cornbrash Park - Bumpers Way
Bumpers Farm Industrial Estate
Chippenham - Wiltshire - SN14 6RA
T: +44 (0) 1249 462 888
F: +44 (0) 1249 446 345
E: solutions@insulation-actis.com