



Aerofit™ Platinum® and Aeropitch™ Platinum®

INSULATION FOR TILED OR SLATED
PITCHED WARM ROOF SPACES



- High performance thermal insulation
- Variable width adjustment
- Engineered to suit standard rafter spacings
- Helps reduce site waste
- Avoids thermal bridging at rafters
- Easy to handle and install
- Ideal for new build and refurbishment
- Helps reduce site waste
- CFC, HCFC & HFC - free
- Manufactured with a blowing agent that has zero ODP and low GWP
- Recyclable
- Contains recycled raw materials



*Low Energy –
Low Carbon Buildings*

Typical Constructions and U-values

Two Layer System

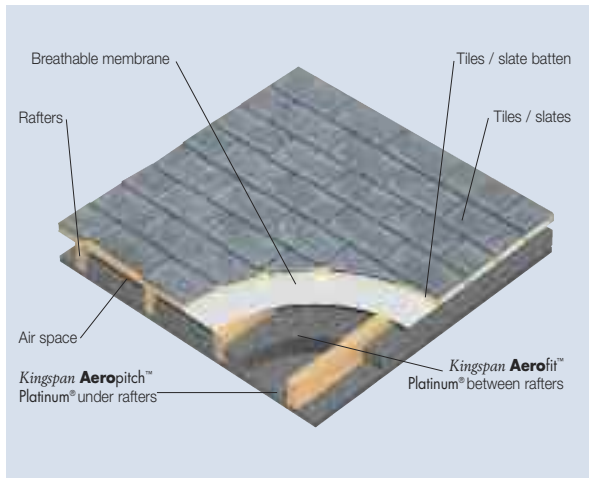


Figure 1

U-value (W/m ² ·K)	Insulant Thickness (mm)	
	Between Rafters	Above or Below Rafters
0.27	100	30
0.23	100	50
0.22	125	40
0.19	150	40
0.17	150	60
0.15	175	70
0.13	200	75
0.11	225	100

Three Layer System

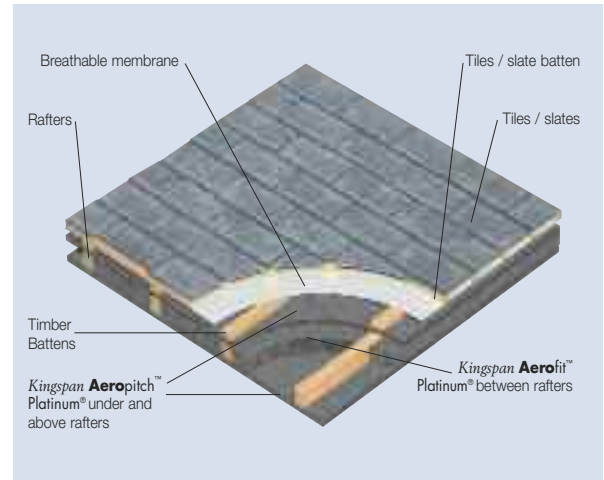


Figure 2

U-value (W/m ² ·K)	Insulant Thickness (mm)		
	Below Rafters	Between Rafters	Over Rafters
0.27	25	100	25
0.23	25	125	30
0.21	25	150	25
0.18	40	150	40
0.17	50	150	50
0.14	70	150	70
0.12	70	200	70

Design Considerations

Rafter Centres

Kingspan Aerofit™ Platinum® can accommodate variations in rafter spacings and, due to its unique variwidth feature, can be used with 400 mm, 450 mm or 600 mm centered rafters.

Ventilation

The requirement for ventilation below the tile underlay is very important if sarking felt is used.

Ventilation at eaves must at least be equal to a continuous strip of 25 mm width. A clear ventilated space of 50 mm must be preserved between the insulation and the sarking felt. Ridge ventilation must be equivalent to a continuous strip of at least 5 mm width.

If an appropriate breather membrane, e.g. *Kingspan nilvent®*, is used as a tile underlay, the need for ventilation below the tile underlay is removed. Please refer to membrane manufacturers literature.

Green Guide Rating

Kingspan Aerofit™ Platinum® corresponds to the BRE Global Green Guide online generic specification 'Expanded polystyrene (EPS) – density 15kg/m³' (ref. 815320022) which achieves a summary rating of A+.

Kingspan Aeropitch™ Platinum® corresponds to the BRE Global Green Guide online generic specification 'Expanded polystyrene (EPS) – density 20kg/m³' (ref. 815320023) which achieves a summary rating of A+.

Sitework

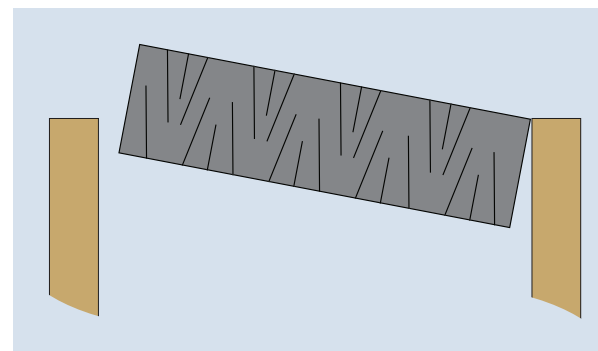
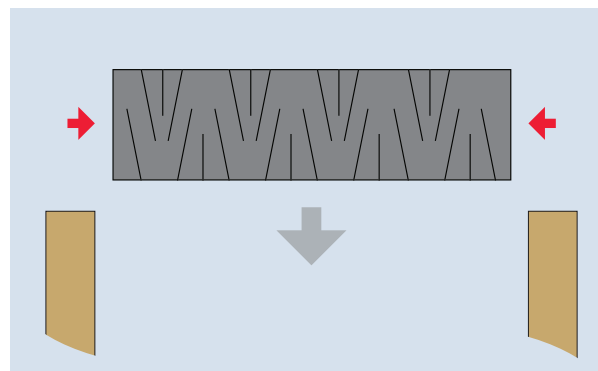
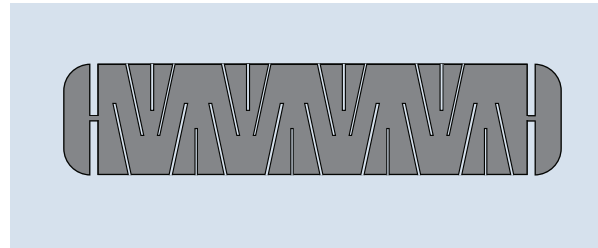
Fixing Details

Warm Rafter Two Layer System

- Fit the *Kingspan Aerofit™ Platinum®* boards between the rafters keeping the upper face flush with the top of the rafters.
- Fit the ends of the *Kingspan Aerofit™ Platinum®* boards tightly together to avoid thermal leakage.
- Place the *Kingspan Aeropitch™ Platinum®* boards on top of the rafters ensuring the joints are lightly butted together.
- Secure the boards by fixing appropriately sized counter battens through the panels to the rafters using long rust-proof nails / screw fixings.
- Stagger the vertical joints between the boards on alternate rows.
- Lay an approved weatherproof breather membrane over the counter battens allowing it to sag as normal between the battens to facilitate proper drainage and ventilation.
- Fit appropriately sized tiling battens at the required centres over the breather membrane, the counter battens and the insulation to the rafters using suitably specified fixing nails / screw fixings.
- Tile the roof in accordance with B.S. 5534.
- Fit a suitable vapour control layer to the underside of the rafters. If the roof space is to be used as a living area, fit plasterboard lining to provide fire protection.

Cold Rafter Two Layer System

- Fit the *Kingspan Aerofit™ Platinum®* boards between the rafters keeping the face of the panel flush with the bottom of the rafters.
- Fit the ends of the boards tightly together to avoid thermal leakage.
- Fit the *Kingspan Aeropitch™ Platinum®* boards to the underside of the rafters ensuring all joints are lightly butted together.
- Secure the boards in position with appropriate rust-proof nails / screws.
- Apply a vapour barrier to the underside of the rafters using 500 gauge polyethylene film and plasterboard or alternatively using a foil faced plasterboard.
- Fix the plasterboard, which provides the required fire protection through the insulation to the rafters using appropriate fixings.



Installation of *Kingspan Aerofit™ Platinum®* Between Rafters

Warm Rafter Three Layer System

- Fit the *Kingspan Aerofit™ Platinum®* boards between the rafters. Ensure that the thickness used is the same as the rafter depth, such that both the upper and lower faces of the boards are flush with the top and bottom of the rafters respectively.
- Fit the ends of the *Kingspan Aerofit™ Platinum®* boards tightly together to avoid thermal leakage.
- Place the *Kingspan Aeropitch™ Platinum®* boards on top of the rafters ensuring the joints are lightly butted together.
- Secure the boards by fixing appropriately sized counter battens through the boards to the rafters using long rust proof nails / screw fixings.
- Stagger the vertical joints between the boards on alternate rows.
- Lay an approved weatherproof breather membrane over the counter battens allowing it to sag as normal between the battens to facilitate proper drainage and ventilation.
- Fit appropriately sized tiling battens at the required centres over the breather membrane, the counter battens and the insulation to the rafters using suitably specified fixing nails / screw fixings.
- Tile the roof in accordance with B.S. 5534.
- Fit the *Kingspan Aeropitch™ Platinum®* boards to the underside of the rafters ensuring all joints are lightly butted together.
- Secure the boards in position with appropriate rust-proof nails / screws.
- Apply a vapour barrier to the underside of the rafters using 500 gauge polyethylene film and plasterboard or alternatively using a foil faced plasterboard.
- Fix the plasterboard, which provides the required fire protection through the insulation to the rafters using appropriate fixings.

Product Details

Description

Kingspan Aerofit™ Platinum® is a pre cut insulation system for use between rafters on warm and cold pitched roof applications providing a high performance method of attic and dormer insulation.

Kingspan Aeropitch™ Platinum® is a high density expanded polystyrene panel suitable for placement above or below the rafter to further enhance thermal values and reduce thermal bridging. *Kingspan Aeropitch™ Platinum®* is available in various thicknesses.

Standard Dimensions

Kingspan Aerofit™ Platinum®

Nominal Dimensions	Availability		
Width Code	375	425	575
Nominal Rafter Spacing (mm)	400	450	600
Board Length (mm)	1200		
Thickness (mm)	75, 100, 125, 150, 175, 200		

Other thicknesses are available upon enquiry

Kingspan Aeropitch™ Platinum®

Nominal Dimensions	Availability
Board Width (mm)	1200
Board Length (mm)	2400, 1800, 600
Thickness (mm)	25 to 100
Edge Profile	Square Edge

Physical Properties

Physical Property	<i>Kingspan Aerofit™ Platinum®</i> and <i>Kingspan Aeropitch™ Platinum®</i>
Thermal Conductivity (W/m·K)	0.031*
Water Vapour Resistance Factor (μ)	20-40*
Water Vapour Permeability (mg/Pa·h·m)	0.018 - 0.036*
Dimensional Stability	DS(N)5*

* Quoted in accordance with BS / I.S. EN 13163: 2008

Contact Details

Customer Service

For quotations, order placement, details of despatches and general enquiries.

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