

Product Data Sheet

HYTHERM ADH Insulation

Durable, lightweight PIR insulation for warm roofs (flat board or tapered)

Hytherm ADH PIR insulation is a high performance board used in warm roofs under fully adhered reinforced bituminous membranes, mastic asphalt and approved single ply waterproofing systems.

The board comprises a fibre-free, rigid polyisocyanurate (PIR) core with a coated glass tissue facing on both sides.

Hytherm ADH is available in both flat and tapered boards, for use on new roofs, refurbished roofs or for upgrading the thermal performance of existing roofs.



Key benefits

- Lightweight, moisture tolerant board
- Excellent thermal performance - 0.026 W/mK lambda (dependent on thickness)
- Compression strength >150kPa at 10% compression
- Manufactured to ISO 14001 and ISO 9001

- Easy handling and installation
- Flat board size: 1200mm x 600mm; thicknesses available 30mm – 120mm
- Environmental performance, GWP < 5, ODP zero
- 2008 Green Guide Summary Rating of A as certified by the BRE
- BBA approved

Description

Flat board	Small	Large	Tapered boards
Width	600mm	1200mm	Tapered scheme details are confirmed on project by project basis
Length	1200mm	1200mm	
Thickness	25mm*	50/80/100/120/130/140/150mm*	
Area	0.72 m ²	1.44 m ²	

*Greater thicknesses of insulation may be achieved with two layers of insulation boards.

Roof waterproofing system

Hytherm ADH is suitable for use with most fully-adhered waterproofing systems - bitumen membranes, PVC, TPO, EPDM, etc. Please contact Axter Ltd to check the membrane and the compatibility of the proprietary adhesive system.

Hytherm ADH is also suitable for use with mastic asphalt, partially bonded built up felt and some liquid applied waterproofing systems, mastic asphalt and fully adhered single ply systems.

Thermal Conductivity

Thickness (mm)	Lambda / λ - value
25 – 79	0.026 W/m.K
80 – 119	0.025 W/m.K
120+	0.024 W/m.K

In accordance with BS EN 13165:2012 Thermal insulation products for buildings – factory made rigid polyurethane foam products – Specification.

Compressive Strength

Typically exceeds 150 kPa at 10% compressions when tested to BS EN 826:1996 Thermal insulating products for building applications. Determination of compressive behaviour.

Resistance to Solvents

Hytherm ADH resists attack from alkalis, dilutes acids, mineral oil and petrol. The insulation core is not resistant to ketonic solvents. Damaged boards should not be used.

Durability

PIR insulation is rot proof and durable, stable (will not sag or shrink), resists attack by mould and microbial growth and will not provide any food value to vermin. It will remain effective as an insulation system for at least the lifetime of the waterproof covering.

Durability is dependent on the application method, the supporting structure and conditions of use.

Environmental

The insulation core of Hytherm ADH is manufactured with a blowing agent that is CFC / HCFC free, zero ODP and <5 GWP. Hytherm ADH has a 2008 Green Guide Summary Rating of A as certified by BRE.

Hytherm ADH is manufactured to ISO 1400 and ISO 9001.

Water vapour resistance

The fibre free insulation core has a water vapour resistance of 40 MNs/g and will provide significant resistance to water vapour transmission. This will minimise both surface and interstitial condensation. The necessity for the inclusion of an air and vapour control layer in the roof construction should be assessed in accordance with BS 6229: 2018 Code of Practice for flat roofs with continuously supported coverings.

Fire Performance

The fire rating of any roof containing Hytherm insulation boards will depend heavily on the type of deck and waterproofing system installed. The designation of the roof covering must meet or satisfy the requirements of national Building Regulations. For further details, contact Axter Ltd.

Roof loading

Hytherm ADH is suitable for roof decks exposed to limited maintenance foot traffic, depending on the waterproofing system being used. A walkway should be provided on a roof where there is regular pedestrian access. The roof should be boarded out with protective boarding whenever site work is to take place after the roof board has been laid and the roof made watertight.

Design considerations

Consideration should also be given to BS 5250: 2011 Code of Practice for control of condensation in buildings and BS 6229: 2018 Flat roofs with continuously supported flexible waterproof coverings – Code of Practice.

Standards and Approvals

BBA approved

Manufactured to ISO 14001, ISO 9001

Wind loading

Wind loads should be assessed in accordance with BS EN 1991-1-4-2005 + A1: Eurocode 1, Actions on structures, General Actions, Wind Actions and the UK national Annex. For information on wind uplift calculations, please call Axter.

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