

January 2016

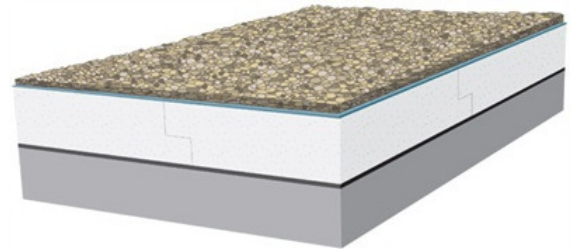
TECHNICAL DATASHEET

HYTHERM EPS 200

High performance insulation for inverted roofs

Axter Hytherm EPS 200 is a durable, lightweight, rigid expanded polystyrene insulation (EPS) board with low water absorption properties. It is used in conjunction with the Axter water reducing membrane.

- Performs to a design load capability of 90KN/m²
- Lightweight, easy to install
- Excellent compression properties
- High dimensional stability
- Resistant to moisture
- Overlap on boards prevents uplift during installation
- Single layer installation up to 250mm
- Manufactured in accordance with BS EN 13163, BS EN ISO 14001 and BS EN ISO 9001
- GWP (Global Warming Potential) <5.
- ODP (Ozone Depletion Potential) zero.
- BBA and ETAG 031 approved.



THICKNESS OF INVERTED BOARD TO ACHIEVE SPECIFIED U-VALUE

The thickness of insulation required to achieve a specific U-value depends on the roof deck construction. The figures below are guidelines and apply only when used with the Axter water reducing membrane.

This table below is based on a roof construction of 150mm reinforced concrete or 18mm plywood deck, structural waterproofing, Hytherm EPS 200 insulation and Axter water reducing membrane.

Thickness (mm)	U Value (W/m ² K)
145	0.25
150	0.24
155	0.23
165	0.22
170	0.21
180	0.20
190	0.19
200	0.18
210	0.17
225	0.16
240	0.15
260	0.14
275	0.13
300	0.12
325	0.11
355	0.10

HYTHERM EPS 200 SIZE INFORMATION

Thickness (mm)	Length	Width	m ² /board	Boards/pack
50	1200	1200	1.44	24
70	1200	1200	1.44	17
80	1200	1200	1.44	15
90	1200	1200	1.44	14
100	1200	1200	1.44	12
110	1200	1200	1.44	11
120	1200	1200	1.44	10
125	1200	1200	1.44	10
130	1200	1200	1.44	9
140	1200	1200	1.44	8
150	1200	1200	1.44	8
155	1200	1200	1.44	7
160	1200	1200	1.44	7
170	1200	1200	1.44	7
180	1200	1200	1.44	7
190	1200	1200	1.44	6
195	1200	1200	1.44	6
200	1200	1200	1.44	6
205	1200	1200	1.44	6
210	1200	1200	1.44	6
215	1200	1200	1.44	5
220	1200	1200	1.44	5
225	1200	1200	1.44	5
230	1200	1200	1.44	5
240	1200	1200	1.44	5

AXTER WATER REDUCING MEMBRANE

The Axter water reducing membrane is a high performance, spun bonded polyethylene geotextile, which helps to minimise heat loss caused by rainwater cooling and consequently the thickness of insulation required.

Length (m)	Width (m)	Area per roll (m ²)
100	3	300*

* Not allowing for overlap (300mm)

HYTHERM EPS 200 PROPERTIES

Properties	Measure unit	Value
Dimensions		
Board size	mm	1200 x 1200
Board minimum thickness	mm	50mm
Single layer maximum board thickness	mm	240mm
Working temperature range	°C	-150 to +80
Thermal Properties		
Declared thermal conductivity	W/mK	0.033
Corrected thermal conductivity	W/mK	0.038
Mechanical Properties		
Compressive strength at 10%	kN/m ²	200
Design load 1% max.	kN/m ²	90
Bending strength	kN/m ²	250
Other properties		
Long term water absorption by immersion to BS EN 12087		≤ 1%
Long term water absorption by diffusion to BS EN 12088		≤ 1%
Performance & Environmental Properties		
Fire performance – Euroclass (BS EN 13501-1)		E
Nominal density		30kg/m ³
EPS Rating: BRE Green Guide		A+
Ozone Depletion Potential (ODP)		Zero
Global Warming Potential		< 5
Code for Sustainable Homes; Cat.6 Pol Credit		YES
BREEAM Compliance		YES

Sustainability

Code for Sustainable Homes, Category 3: Materials

Mat 01: Environmental Impact of Materials

Hytherm EPS 200 is made from EPS (expanded polystyrene) which has an A+ rating in the BRE Green Guide. The BRE Green Guide to Specification (www.bre.co.uk/greenguide/) provides guidance on how to make the best environmental choices when selecting construction materials and components.

Hytherm EPS 200 has a Global Warming Potential (GWP) of less than 5 and an Ozone Depletion Potential (ODP) of zero.

BREEAM, Material 04 Insulation

Embodied Environmental Impact: the calculation of embodied impact relative to thermal performance is a function of the material volume (for each build), its BRE Green Guide Rating and its thermal conductivity. The thermal conductivity of Hytherm EPS 200 is shown in the table above.

Hytherm EPS 200 is manufactured in factories which are ISO14001 certified and raw material comes from suppliers who are ISO14001 certified.

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