



EVATHERM D

INSULATION FOR WARM FLAT ROOFS (DECK FORMING)

PROFILE

EvaTherm D is a high performance rigid polyisocyanurate (PIR) foam board for use in warm flat roofs under built-up felt and approved single-ply membrane waterproofing systems.

EvaTherm D is a closed cell, CFC and HCFC-free (zero ozone depletion), rigid polyisocyanurate foam core faced, both sides with a multi-layer coated aluminium foil. A layer of 6mm WBP plywood is then bonded to the insulation board giving additional strength and rigidity to provide a suitable substrate for partially bonded built up waterproofing systems. The board has exceptionally low thermal conductivity of 0.022 W/mK.

BENEFITS OF EVATHERM D

- Wider choice: EvaTherm D is available in a wide range of thicknesses, which will assist in meeting the appropriate Building Regulation standard with any form of warm flat roof construction.
- Quality: Outstanding product quality manufactured to ISO 9001 Quality Systems. All of our products carry the CE Mark to show compliance with the harmonised European Standard BS EN 13165.
- Ozone friendly: Zero ozone depletion potential.
- Global warming: CFCs, HCFCs and HFCs are all powerful greenhouse gases. Pentane on the other hand satisfies the "Green Guide to Specification" and the Intergovernmental Panel on Climate Change (IPCC) confirming a Global Warming Potential of below 5.
- All our products have a global warming potential of below 5.
- Low thermal conductivity: The declared thermal conductivity value of 0.022 W/mK is some 30% more efficient than most other insulation materials.
- Compatibility: Fully compatible with most synthetic (PVC, EPDM etc) and bitumen based single-ply membrane waterproofing systems.
- Warm roof construction: No requirement for roof ventilation and inherently safe from harmful interstitial condensation.
- Reduced risk of condensation: Condensation within the roof structure is avoided as it is maintained at the same temperature as the inside of the building.
- Handling: EvaTherm D is lightweight yet tough and resilient. The boards are easily cut using a fine-toothed saw.
- Durability: EvaTherm D boards are rot-proof, durable and maintenance free.



PRODUCT FEATURES

Use(s):
Flat Roofs

Thermal Conductivity:
0.022 W/mK

Compressive Strength:
140 kPa (PIR Only)

Facing(s) – Top & Bottom:
Top: 6mm WBP Plywood
Bottom: Multi-Layer Coated
Aluminium Foil

Material Core:
CFC & HCFC Free
(Zero ODP & GWP <5)
Rigid PIR Foam

Standard Board Size:
2400mm x 1200mm

Reaction To Fire
EN13501 Euroclass F

DESIGN - SINGLE PLY MEMBRANE WATERPROOFING SYSTEMS

EvaTherm D boards are compatible with most mechanically synthetic (PVC, EPDM etc) and bitumen based single-ply membrane waterproofing systems.

- **Condensation:** To reduce the risk of interstitial condensation, an air and vapour control layer (AVCL) should be installed on the warm side of the insulation. The AVCL can also control air and heat leakage from within the building. Reference should be made to BS 5250:2021 and BS 6229:2018 for the condensation assessment and adequate bonding to the deck.
- **Roof Loading:** EvaTherm D boards are suitable for loads associated with the pedestrian maintenance traffic on the roof; for areas of heavier pedestrian traffic extra precautions should be taken such as the use of specially designed walkways (consult the membrane manufacturer for specific details). Care must be taken to avoid damage to boards by impact or by concentrated loads during installation.
- **Roof Drainage:** To ensure adequate drainage the roof should have a minimum finished fall of 1:80 as BS6229:2018. This means designing with a fall of 1:40. This will take into account for building tolerances, permitted deviations, deflections under load and possible deflections/settlement.
- **Thermal Bridging:** With increasing levels of insulation it is vitally important to ensure continuity of the insulation at the junction of elements. At the junction of the roof and the wall packing the eaves with compressible mineral fibre insulation will both prevent thermal bridging and close the cavity. At upstands and parapets the cavity wall insulation should be continued above the level of the roof to ensure continuity of the wall and roof insulation.
- **Wind Uplift:** The wind uplift force exerted on the roof will vary according to geographical location, site location and building height. Reference should be made to BS 6229:2018 for adequate bonding of the air and vapour control layer to the deck to help resist wind uplift. Calculations relating to the bonding and any supplementary fixings should be made with reference to BS 6399-2:1997.

EVATHERM D BOARD IS AVAILABLE IN THE FOLLOWING DIMENSIONS:

| | |
|----------------|-------------|
| Length (mm) | 2400 |
| Width (mm) | 1200 |
| Thickness (mm) | 96,116,126* |

* Some thicknesses may be subject to minimum order quantities.