MOYMATERIALS

Waterproofing & Insulation Specialists

PARATHERM T

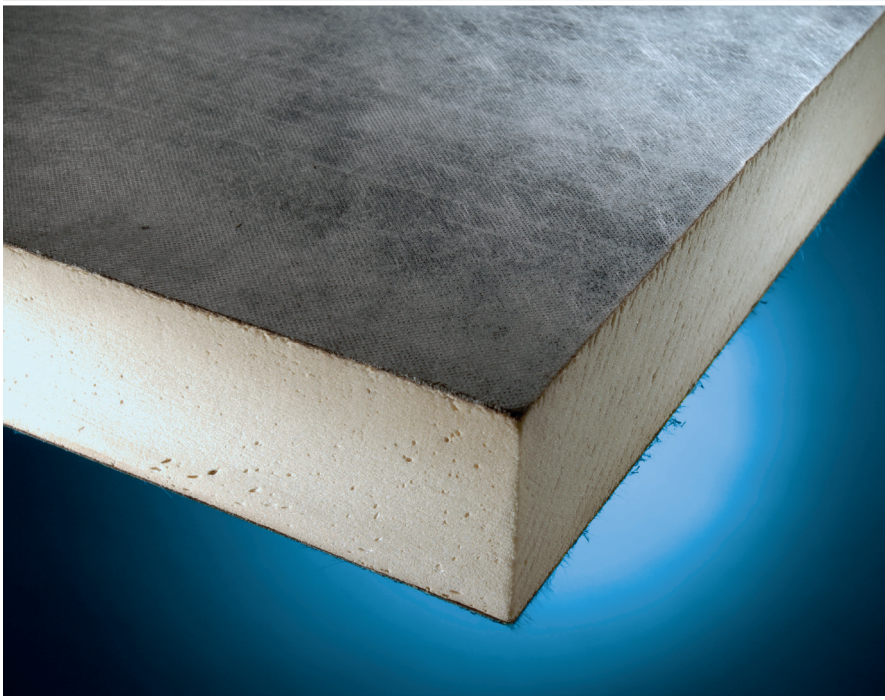
APPLICATION

Used for upgrading the thermal performance of new build and existing metal, concrete and timber deck flat roofs. For use with torch applied and roll & pour modified bitumen systems together with mastic asphalt and fully adhered single ply systems.

PRODUCT DESCRIPTION

Paratherm T is a rigid polyisocyanurate (PIR) foam core faced with perforated mineral coated glass fibre tissue on one side and bitumenised glass fibre tissue with polypropylene fleece on the other. The PIR foam core is temperature tolerant and withstands the application of hot bitumen and asphalt to the surface at up to 230°C.

Paratherm T is CFC/HCFC free with zero ozone depletion potential (ODP) and a global warming potential (GWP) of 3.



THERMAL CONDUCTIVITY

The thermal conductivity/lambda (λ value) of the insulation is as follows:

25 to 79mm = 0.026 W/mK
80 to 119mm = 0.025 W/mK
120 to 200mm = 0.024 W/mK

TYPICAL U-VALUES

Typical U-values are shown in Table 1.

The examples shown are based on the use on 2 layers of Moy bituminous membrane, over Paratherm T insulation boards, laid over a bitumen vapour control layer and with a plasterboard ceiling below deck.

DIMENSIONS

Width: 600mm, 1200mm
Length: 1200mm
Thickness: 30mm up to 200mm

Tapered insulation is available for use in project specific tapered roofing schemes. Please contact Moy Materials for further details.

DENSITY

The PIR foam has a typical density of 31Kg/m³.

WEIGHT

Typical Weight of a 600 x 1200mm, 120mm thick board is 3Kg.

Table 1

Thickness (mm)	Length (mm)	Width (mm)	R Value (m^2k/W)	Typical U value on metal deck (W/m^2k)	Typical U value on concrete deck (W/m^2k)	Typical U value on timber deck (W/m^2k)
30	1200	600	1.15	0.72	0.68	0.57
40	1200	600	1.54	0.58	0.55	0.48
50	1200	600	1.92	0.47	0.45	0.40
60	1200	600	2.31	0.40	0.38	0.34
70	1200	600	2.69	0.35	0.34	0.31
80	1200	600	3.20	0.29	0.28	0.26
90	1200	600	3.60	0.26	0.26	0.24
100	1200	600	4.00	0.24	0.23	0.22
110	1200	600	4.40	0.22	0.21	0.20
120	1200	600	5.00	0.19	0.19	0.18
130	1200	600	5.42	0.18	0.18	0.17
140	1200	600	5.83	0.17	0.16	0.16
150	1200	600	6.25	0.15	0.15	0.15
160	1200	600	6.67	0.15	0.14	0.14
170	1200	600	7.08	0.14	0.14	0.13
180	1200	600	7.50	0.13	0.13	0.12
190	1200	600	7.92	0.12	0.12	0.12
200	1200	600	8.33	0.12	0.12	0.11

For further information please call +44 (0) 1245 707449 or email info@moymaterials.co.uk
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COMPRESSIVE STRENGTH

The typical compressive strength for the insulant core exceeds 150kPa when tested to BS EN 826: 1996 Thermal Insulating Products for Building Applications - Determination of compressive behaviour.

FIRE PERFORMANCE

The fire rating of any roof containing the boards will depend heavily on the type of deck and the nature of the roof waterproof covering. Further details on the fire performance may be obtained from Moy Materials.

ROOF LOADING

Paratherm T is suitable for use on roof decks that are subject to limited maintenance foot traffic. Walkways should be provided on roofs requiring regular pedestrian access. The roof should be suitably protected whenever site work is to take place after the roof board has been laid and the roof made watertight.

STANDARDS AND APPROVALS

PIR foam is produced according to BS EN 13165: 2012 Thermal insulating products for buildings-Factory made rigid polyurethane foam products-specification. Paratherm T is compliant with BS 4841-4: 2006.

Consideration should be given to the recommendations of SPRA (Single Ply Roofing Association) and BRUFMA (British Rigid Urethane Foam Manufacturers' Association).

LAYING PATTERN

Boards should be laid with edges butted and in a break bonded, staggered pattern laid at right angles to the edges of the roof or diagonally across the roof.

Lay with white bitumen coated fleece side up for torch-on and mastic asphalt systems.

Lay with buff coloured facing side up for single ply adhered and roll and pour felt systems.

For torch-applied systems, torch apply with minimum heat at all times onto the bitumen fleece side. Never apply the flame to the insulation facing. Consider using flame/edge guards when torching.

FIXING DETAILS

Fully Bonded

- Fully bond the vapour control layer to the deck.
- Bond the insulation board to the vapour control layer.
- Never apply the flame directly to the insulation facing.
- Always torch the roll.
- Torch apply with minimum heat at all times.

Mechanically Fixed

- Mechanical fixings should be used as recommended in BRUFMA information document ID/1/2009.
- Where mechanical fixings are used, Paratherm T should be restrained over its full surface area; this can be achieved by the use of a mechanical fixing at each of the four corners of a 1200 x 600mm board and a minimum of 100mm from board edges.
- Other fixings required to meet local wind uplift requirements should be evenly distributed over the board.
- A minimum 50mm countersunk washer should be used with each fixing and the washer must restrain one board only.
- The suitability of the substrate to accept and retain mechanical fixings must be checked prior to the work commencing.

Always install approved angle fillets at all upstands or kerbs.

STORAGE

At no time should Paratherm T be left exposed to rain or snow. Whenever work is interrupted, a night joint must be made to prevent water penetration.

Packs are stretch wrapped in recyclable polythene. Store boards in a flat, dry area off the ground away from mechanical damage and sources of ignition. Boards should be completely covered with weatherproof sheeting.

The boards must be kept dry at all times, boards wetted accidentally must be replaced or allowed to fully dry naturally before application of the waterproof layer.

The boards must be protected from prolonged exposure to sunlight and should be stored either under cover or covered with opaque polyethylene sheets.

HEALTH & SAFETY

This PIR product is chemically inert and safe to use; COSHH information is available on request.

- Do not drop boards
- To cut use a sharp knife or fine tooth saw
- Wear eye protection
- Damaged boards should not be used

Cutting with power tools generates dust so should be kept to a minimum. Ideally all operations which produce dust should be carried out in well ventilated conditions; a dust mask selected in accordance with BS EN 149 should be worn. Ensure accurate trimming to achieve close butt joints and continuity of insulation, particularly around projections through the roof.

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