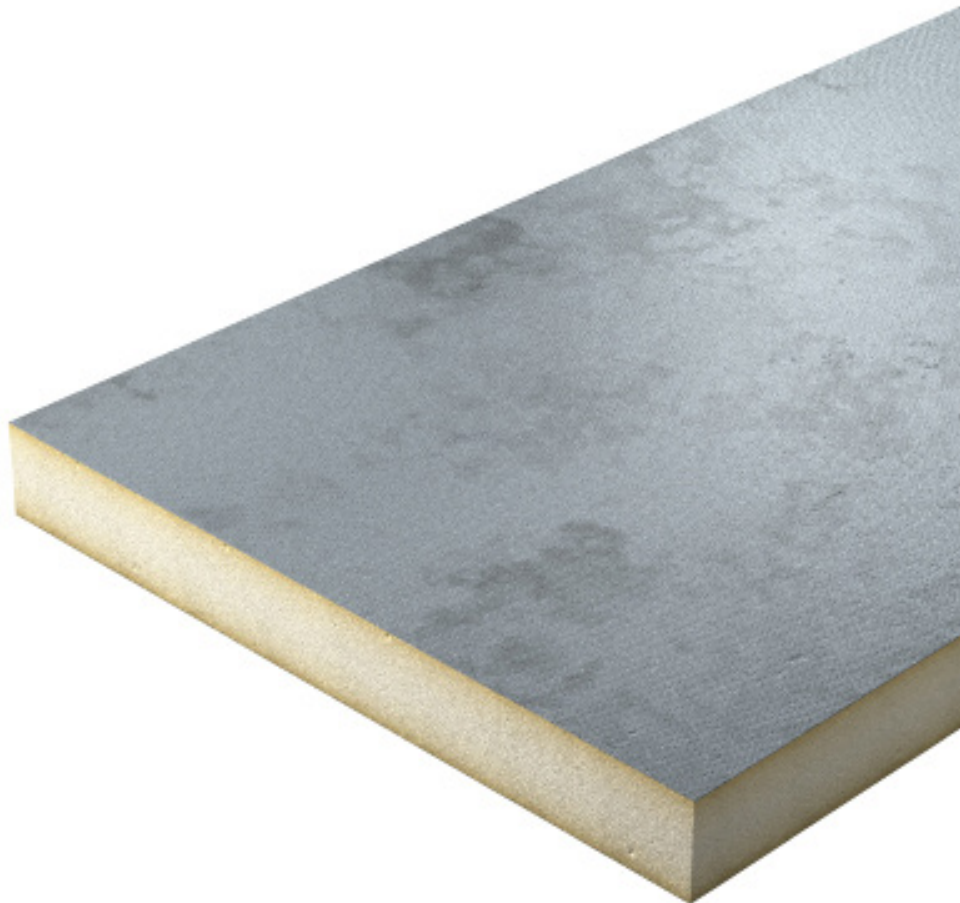


ProTherm

PIR TORCH

Product Data Sheet



Product Data Sheet

General Information

ProTherm PIR TORCH is a rigid Polyisocyanurate (PIR) foam insulation for use in bituminous roofing-systems on suitable surfaces.

ProTherm PIR TORCH is a rigid Polyisocyanurate (PIR) foam core faced with bitumen coated glass fibre tissue on one side and polypropylene fleece on the other. The PIR foam core is temperature tolerant and withstands the application of hot bitumen to the surface temperature of 240°C. For use with adhered or mechanically fastened warm roof waterproofing such as EshaUniversal, EshaFlex & EshaGum.

For a comprehensive NBS J42 or J41 specification contract Radmat Building Products.

ProTherm PIR TORCH is compliant with BS 4841-4:2006, BBA certificate No. 16/5341.

Installation Instructions

ProTherm PIR TORCH is bonded to the Radmat Vapour Layer or prepared existing surface with EshaStik PU Adhesive. When used with EshaVent or EshaFlex TK40 Base Layers the ProTherm PIR TORCH boards should be laid buff coloured facing side up. When used with EshaFlex 370 Plain Base Layer or other torch applied Base Layer ProTherm PIR TORCH boards should be laid with the black facing side up. Individual ProTherm PIR TORCH boards should be laid with edges butted and in a break bond pattern laid at right angles to the edges of the roof or diagonally across the roof.

When applying ProTherm PIR TORCH on existing bituminous or sanded substrate the surface must be prepared in accordance with the project specific guidelines provided by Radmat.

All installation to be according to guidelines and specifications supplied by Radmat.

Delivery conditions

Delivery form

ProTherm PIR TORCH packs area stretch wrapped in recyclable poylthene with various board quantities per one-way pallet depending on thickness.

Storage and transport

ProTherm PIR TORCH boards should be stored 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 dry fully 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.

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Product description							
Appearance top side	Bitumen coated glass tissue						
Core	Polyisocyanurate (PIR) foam						
Appearance bottom side	Uncoated glass tissue						
Declared performance							
Ozone Depletion Potential	Zero						
Global Warming Potential	3						
BRE Green Guide Rating	A						
Compressive Strength	Typical compressive strength for the foam exceeds 150KPa when tested to BS EN 826: 1996 Thermal Insulating Products for Building Applications-Determination of compressive behaviour.						
Density	PIR foam has a typical density of 31 Kg/m ³						
Durability	The product is stable, rot proof and durable and will remain effective as an insulation system at least as long as that of the waterproof covering. Durability depends on the method of application, the supporting structure and conditions of use.						
	The insulation core and facings resist attack by mould and microbial growth, and do not provide any food value to vermin.						
Resistance To Solvents - Foam	ProTherm PIR TORCH resists attack from dilute alkalis and acids, mineral oil and petrol. The foam is not resistant to ketonic solvents. Damaged boards should not be used.						
Thermal Conductivity	The thermal conductivity (λ value) of the foam varies by thickness 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 for the range within given constructions are shown in Table 1.						
Water Vapour Resistance	The insulation core has a water vapour resistance of 40MNs/g/m* and will, therefore, provide resistance to water vapour transmission. This will minimise both surface and interstitial condensation. The necessity for the inclusion of a water vapour control layer in the roof construction should be assessed in accordance with BS 6229:2003 Code of Practice for flat roofs with continuously supported coverings.						
Dimensions	Width: 600mm Length: 1200mm Thickness: Varies according to taper						
Typical Weight	Typical weight of a 120mm thick board is 4.1 kg						
Fire	Achieves BS476-7: 1997 Class 1 rating for surface spread of flame. Finished with 3 layer built-up felt and chippings, the roof will attain an FAA rating when tested to BS 476: 1988 External Fire Exposure Test. Further details on the fire performance may be obtained from Radmat Technical Services.						
Roof Loading	Depending on the chosen waterproofing system, ProTherm PIR TORCH 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 boarded out with protective boarding whenever site work is to take place after the roof board has been laid and the roof made watertight.						
Spanning Metal Decks	ProTherm PIR TORCH laid over metal decks must not exceed: <table border="0"> <tr> <td><u>Spanning distance</u></td><td><u>Insulant thickness</u></td></tr> <tr> <td>100mm</td><td>40mm</td></tr> <tr> <td>140mm</td><td>50mm and over</td></tr> </table> <p>On metal decks the long edges should be at right angles to the corrugations. All board joints should be fully supported by the deck. Please refer to BS 4841-4:2006 for details of thickness of board over metal trough openings.</p>	<u>Spanning distance</u>	<u>Insulant thickness</u>	100mm	40mm	140mm	50mm and over
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Table 1, Typical U values for the range within given constructions

Thickness (mm)	Length (mm)	Width (mm)	R Value (m ² k/W)	Typical U value on metal deck (W/m ² k)	Typical U value on Concrete deck (W/m ² k)	Typical U value on Timber deck (W/m ² k)
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

* Made to order. May be subject to extended lead time and minimum order quantities. Please call to confirm before quoting.

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