



BITUMAT
بيتومات

BITUTHERM

Extruded Polystyrene
Thermal Insulation Board

BITUMAT BITUTHERM is produced in Dammam, Saudi Arabia using the latest computerized state of the art technology. Bitumat Bitutherm Extruded Polystyrene panels are specially formulated to suit the very harsh Middle Eastern climatic conditions. BITUMAT BITUTHERM is an intelligent way to insulate a building.

Bitumat uses the most sophisticated German know how to ensure that the product is consistent, water resistant, reliable and able to maintain its high R value for long periods. BITUMAT BITUTHERM boards are made in a continuous skin surface & developed into a closed cell structure.

The blended polystyrene polymer compound is heated. Put through an extrusion process & exposed to normal atmospheric conditions so that the material will expand. XPS is available in several different densities and has an R-value at 75°F (24°C) of about 5 per inch (25mm) of thickness.

BITUMAT BITUTHERM can be used for Roofs, Walls or even Basement. Some salient features of Bitutherm are:

- Due to closed-cell and homogeneous structure high resistance to water absorption thus ensuring that the product is not only dimensionally stable but capable of maintaining its K Value for long periods.
- Desirable resistance to vapor diffusion so that breathability is maintained.
- Sufficient strength against heavy loads.
- Excellent K and R values.
- Long-term high insulation efficiency.
- Resistance to ageing and rotting.
- High resistance to thermal cycling.
- Non Toxic and non hazardous to humans and environment.
- Eliminates thermal bridging with its tongue and groove edges.
- Available in various types for roofs, slabs, and walls.
- Very light in weight with no additional load on the building.

GENERAL DATA

Nominal Board Length	: 1250 mm.
Nominal Board Width	: 600 mm.
Nominal Thickness	: 50, 75, 100 mm.

APPLICATION

ROOF

Bitumat BituTherm (R) can be very conveniently installed on a roof. In classical as well as inverted roofs. It can be used with most roof membranes if appropriate precautions are observed. Once the waterproofing membrane has been installed and flood tested, the Bitumat BituTherm insulation boards can be installed loose laid or spot bonded to the waterproofing membrane. In protected roof membrane assemblies, ballast is applied after Bitumat BituTherm board roof insulation has been loose-laid over the roof membrane.

The amount of ballast will vary with the project's wind-uplift resistance requirements and thickness of the Bitumat BituTherm roof insulation board.

WALLS

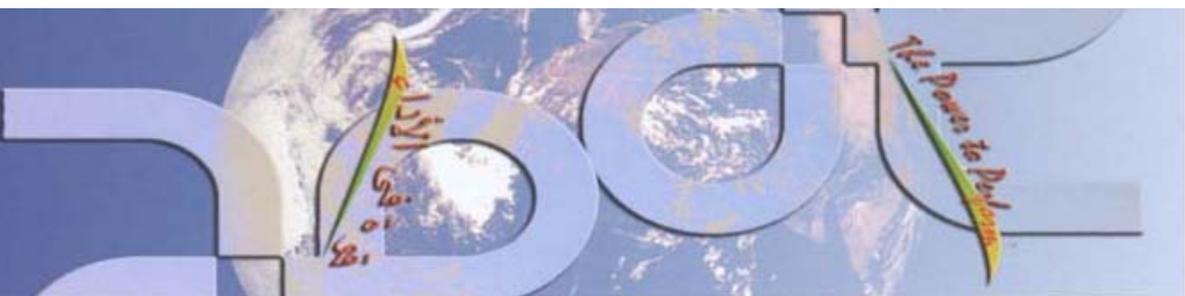
Bitumat BituTherm (W) can be used as wall insulation also. It can be applied in several ways including as a sandwich application.

FLOORS

Heavy duty Bitumat BituTherm (F) can be used for floor applications also. The higher density and compressive strength makes it ideal for such applications.

MULTIPLE-LAYER INSULATION

The recommended specification is for multiple-layer insulation. Bitumat urges double-layer application, especially when the total required thickness of XPS insulation is more than 2 inches (50 mm). Cover boards are considered to be components of a multiple-layer insulation assembly.



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XPS01 10-K R-01 100-L

TECHNICAL DATA

S/N	Characteristics (Typical Values)	Test Method	Unit	Bitutherm R	Bitutherm W	Bitutherm F
1.	Density	DIN 53420 ASTM D 1622	Kg/m ³ lb/ft. ³	32-35 2.0-2.2	28-30 1.7-1.9	40-45 2.5 - 2.8
2.	Thermal Conductivity	DIN 52612 DIN 52616 ASTM C 518-98	W/m ^{°k} Btu.in / h.ft ² .°F	0.028 0.20	0.029 0.21	0.026-0.027 0.18-0.19
3.	Compressive Strength at 10% deflection	DIN 53421 ASTM D 1621-04	Kpa psi	300 43	210 30	500-700 70-100
4.	Water Vapour Diffusion resistance factor	DIN 52615	μ	100-200	100-200	100-225
5.	Water Vapour Permeability	ASTM C 355-64 ASTM E 96 00	Perm/inch	0.4-0.6	1.0	0.4-0.6
6.	Water Absorption by Submersion	DIN 53428 ASTM D 2842 (±1% by Vol. Precision)	% by Vol. % by Vol.	0.2 ≤1.0	0.2 ≤1.0	0.2 <1.00
7.	Linear Co-efficient of Thermal Expansion	DIN 52328	°C °F	70x10 ⁻⁶ 39x10 ⁻⁶	70x10 ⁻⁶ 39x10 ⁻⁶	70x10 ⁻⁶ 39x10 ⁻⁶
8.	Fire Classification	DIN 4102	Building Material Class	B2	B2 too difficult to ignite	B2 too difficult to ignite

The information in this Technical Data Sheet is given to the best of our knowledge. However, as the product is often used under conditions beyond our control, we cannot guarantee but the product itself. Bitumat Bitutherm testing is being upgraded and is being currently tested in various independent laboratories for more accurate data.



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The Points To Polystyrene



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