

Extruded Polystyrene (XPS) Thermal Insulation Board is a rigid foam board extruded from polystyrene, having a closed cell structure. It is globally acknowledged to be one of the best value-for-money thermal insulation options.

Product Benefits :

SAVINGS IN ENERGY COSTS

XPS Thermal Insulation helps save energy costs in a building as air-conditioning loads are lower & cooling effect is retained longer in an insulated building.

LIVING COMFORT INSIDE THE BUILDING

XPS Thermal Insulation helps provide comfortable living inside the building by providing a thermal barrier against heat conduction, suppressing air movements to limit heat convection & limiting heat radiation effects.

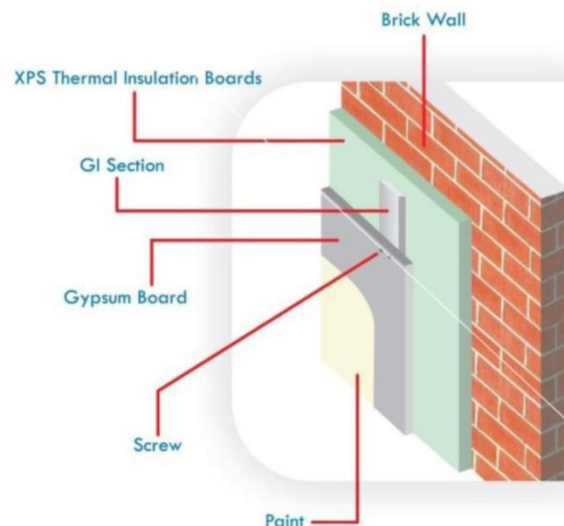


ENHANCED LIFE OF THE BUILDING STRUCTURE

XPS insulation enhances the life of the building structure by providing protective insulation and thereby preventing the formation of cracks due to thermal expansion-contraction stresses which occur when a building structure is exposed to sunlight. XPS also helps in extending the life of terrace waterproofing.

INTERNAL WALL INSULATION

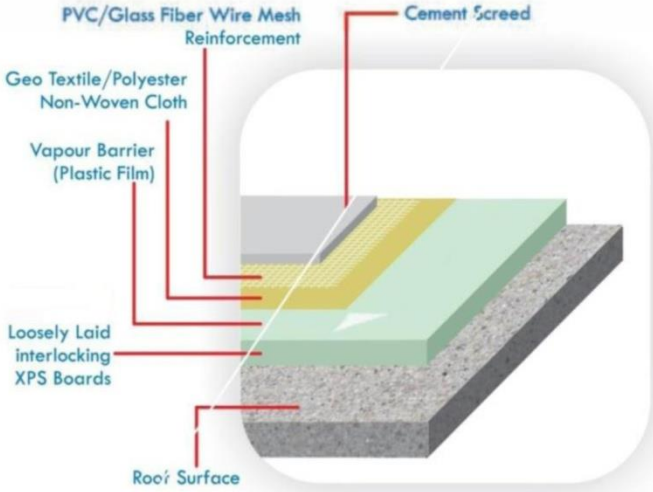
- Surface preparation of the wall (leveling with cement plaster & surface cleaning) should be done before application of XPS boards.
- Fix XPS boards in a staggered manner with a suitable adhesive or mechanical fasteners/plastics nails.
- Fix the GI framework of the insulated wall with the help of mechanical fasteners recommended by Gypsum board supplier.
- Install Gypsum boards with the help of suitable fasteners as per guidelines of the Gypsum boards manufacturer.
- Any internal finish depending upon the aesthetic preference of the customer can be applied directly on Gypsum boards.





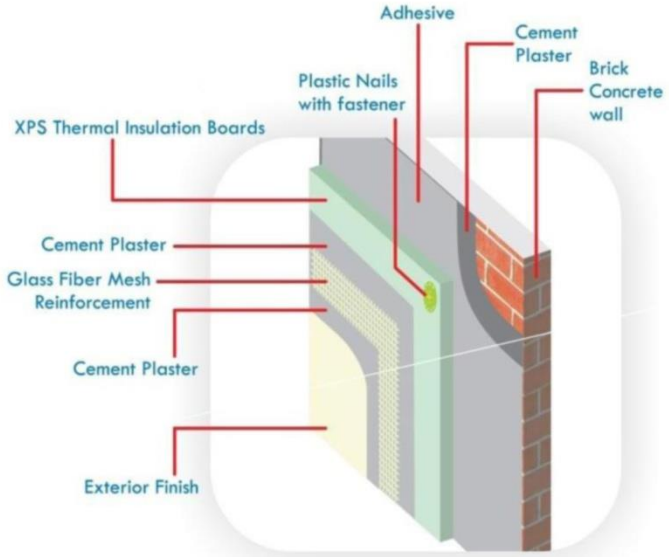
OVER DECK ROOF INSULATION

- ◆ Suitable slope to be provided to the roof surface towards a drain to prevent rain water accumulation.
- ◆ Surface preparation (level & clean surface) of the roof to be done.
- ◆ Waterproofing be done to the roof prior to application of thermal insulation.
- ◆ XPS boards (≥ 50mm thickness) are placed loosely on the roof connecting the ship-laps. Ensure that the joints between the rows are staggered.
- ◆ A vapour barrier in the form of a 100~120 gsm plastic film is laid over the boards. A 75 mm overlap is given at the edges.
- ◆ A 140 gsm geo textile/polyester non-woven cloth is placed on top of the vapour barrier as a separation layer to protect against differential expansion among the various layers. A 75 mm overlap is given at the edges.
- ◆ A PVC/Glass Fiber wire mesh is provided as reinforcement above the polyester non-woven separation layer.
- ◆ Fiber-reinforced plasticised cement screed generally with a composition of 1:2:4 of Cement:Sand:Stone Aggregate is applied on the PVC wire mesh to cover the surface with the required thickness.
- ◆ Cement screed casting should be done in a 1m x 1m panel form with appropriate control joints given to protect against any subsequent thermal expansion-related cracking.
- ◆ Tiles can be laid on top of this cement screed surface. This roof is a fully accessible roof.



EXTERNAL WALL INSULATION

- ◆ Surface preparation of the wall (leveling with cement plaster & surface cleaning) should be done before application of the XPS boards.
- ◆ Special XPS Adhesive Cement is applied to the XPS Board & the board is thus fixed to the brick-concrete wall.
- ◆ Holes are drilled through the XPS board to insert the plastic expansion fastener system.
- ◆ The surface around the hole is prepared to ensure that the plastic fastener face is flush with the XPS board surface.
- ◆ The Plastic fasteners are inserted into the holes & the nails are driven into the fastener to lock them in.
- ◆ Special XPS Cement Plaster is applied to XPS surface as a first layer. This surface is combed with the screed tool and a fiber mesh is applied as reinforcement.
- ◆ An additional layer of XPS Cement Plaster is applied over the fiber mesh to cover it completely.
- ◆ Any exterior finish depending on the budget & aesthetic preference of the customer can be applied to the cement screed.
- ◆ The Building Exterior looks no different from that of an uninsulated structure.



Technical Specifications

Physical Properties	Test Method	Units	Value
Density	ASTM D 1622	kg/m ³	32
Compressive Strength at 10% deflection	ASTM D 1621	kPa N/mm ²	≥ 300 0.300
Thermal Conductivity at 25°C	IS 3346	W/m-K Btu-in/ft ² -h-°F	0.028 0.194
Thermal Conductivity at 10°C	IS 3346	W/m-K Btu-in/ft ² -h-°F	0.014 0.097
Water Vapour Permeability	ASTM E 96	mg/hmPa	≥0.0037
Water absorption by Submersion (28 days)	ASTM D 2842	Volume %	≤ 1
Dimensional Stability	SPL test method	%	≤ 2
Flammability	DIN 4102, Part-1		B2

is compliant with ISO 4898 : 2008 as well as ASTM C 578-08b- Type VI requirements.

PACKING DETAILS					
Thickness (mm)	Boards/Bag	m ² /Bag	m ³ /Bag	Fr ³ /Bag	Edge Profile
25	18	13.5	0.3375	11.92	Square
30	15	11.25	0.3375	11.92	Square
40	10	7.5	0.3	10.59	Shiplap
50	8	6	0.3	10.59	Shiplap
75	6	4.5	0.3375	11.92	Shiplap
100	5	3.75	0.375	13.24	Shiplap

Standard Size : 1250 x 600 mm