



Green Insulation

Systems For Buildings

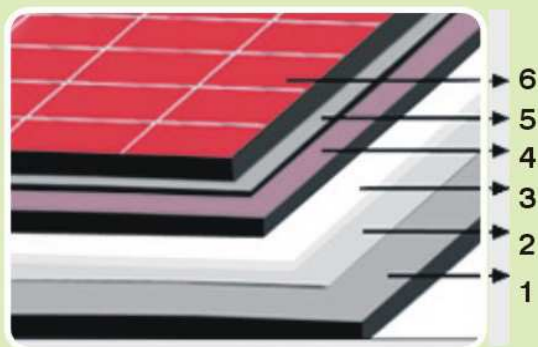
Ozone Friendly
Environmentally Safe



Extruded Polystyrene
Thermal Insulation
Boards

Roof Insulation

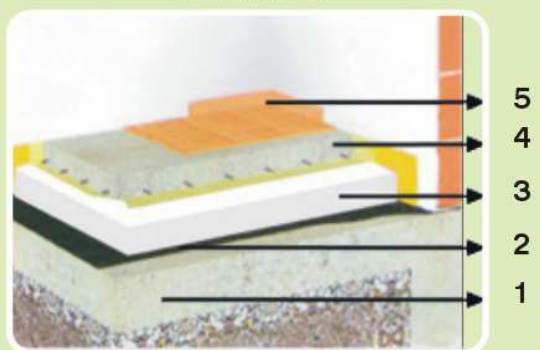
Method - 1



- 1) Concrete Slab
- 2) Water Proofing System
- 3) Green Insulation XPS Board
- 4) 3" Mud (Minimum)
- 5) 1" Cement Mortar
- 6) Roof Tiles

Roof Insulation

Method - 2

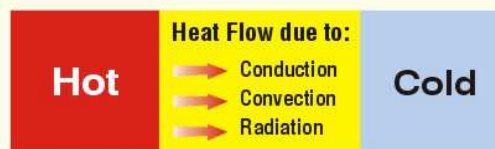


- 1) Concrete Slab
- 2) Water Proofing System
- 3) Green Insulation XPS Board
- 4) Reinforced Concrete
- 5) Roofing Tiles

Cavity Wall Insulation



With today's design-oriented goals of sustainability and energy efficiency, the proper use of insulation is becoming more important than ever. If you want your home to be warm in the winter and save your heating bills, your insulation has one task... to keep the heat in! But if you want your home to stay cool on the warmest summer days, insulation's job is different... it must keep the heat out. How can one product do both? It's easy to understand once you grasp the simple concept of heat transfer. This daily occurrence takes its toll on the best of buildings if not suitably and adequately protected against the ravaging nature.



Heat flows naturally from a warmer to a cooler space. In winter, the heat moves directly from all heated living spaces to the outdoors and to adjacent unheated attics, garages, and basements wherever there is a difference in temperature. During the summer, heat moves from outdoors to the house interior. To maintain comfort, the heat lost in winter must be replaced by your heating system and the heat gained in summer must be removed by your air conditioner.

WHY INSULATE?

Heating and cooling account for 50 to 70% of the energy used in an average home. Inadequate insulation and air leakage are leading causes of energy waste in most home.

- ➔ Reduce the consumption of electrical energy up to 40% during the cooling process inside the building.
- ➔ Increases the level of comfort for the inhabitants in a building as it provides a cooler interior ambience.
- ➔ The usage of Ac is minimized, This helps to reduce the cost of power consumption.
- ➔ Protects the building materials from the constant fluctuations in temperature theory helping to enhance the expected life of the building.
- ➔ Reduces environment pollution and the heat transmitted into the buildings.
- ➔ Helps in preserving the national limited energy resources.
- ➔ Thermally Insulated buildings have less noise pollution from the Ac's & chiller rooms as also from the noise, penetrating from outside

GREEN INSULATION

Green Insulation using the latest computerized state of the art technology, Extruded Polystyrene board are specially formulated to suit the very harsh South Asian climatic conditions. Green Insulation is an intelligent way to insulate a building.

Green Insulation uses the most sophisticated know how to ensure that the product is consistent, water resistant, reliable and able to maintain its high R Value for long periods. Green Insulation boards are made in a continuous HD skin surface & developed into a closed cell structure. Green Insulation may be tested as per BS 3837, ASTM C 177-518 or relevant DIN Standards. It meets the specified requirements of ASTM-C578.

GPPS-Resim mixed with appropriate additives are heated at approx, required temperature ranged through an extrusion process to produce insulation boards in different thicknesses. 23.90 of 1-inch (25mm) sheet is 5.15 Btu/ft².hr.fto .

Green Insulation can be used for Roofs, Walls or even Basement. Some salient features of Green Insulation 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 of time.
- Desirable resistance to vapor diffusion so that breathability is maintained.
- Sufficient strength against heavy loads.
- Excellent K and R vales.
- Long-term high insulation efficiency.
- Resistance to ageing and rotting.
- High resistance to thermal cycling.
- Non Toxic and non hazardous to human & environment.
- Eliminates thermal bridging with its butt/shiplap/tongue & groove edges,
- Available in various thicknesses of sizes.
- Very light in weight with no additional unwanted load on the building.

APPLICATION ROOF

Green Insulation can be very conveniently installed on a roof. In conventional as well as Inverted roofs. It can be used with almost all roof membranes if appropriate precautions are observed. Once the waterproofing membranes has been installed and flood tested, The Green Insulation board can be installed loose laid or spot bonded to the waterproofing membrane. In protected roof membrane assemblies, Ballast is applied after Green Insulation 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 & thickness of Green Insulation roof insulation board.

WALLS

Green Insulation can be used as wall insulation also. It can be applied in several ways including as a sandwich application.

FLOORS

Heavy duty Green Insulation can be used for floor applications also. The higher density and compressive strength makes it deals for such applications.

MULTIPLE-LAYER INSULATION

NRCA's recommended specification is for multiple-layer insulation. Green Insulation urges double-layer application, especially when the total required thickness of XPS insulation is more than 2 inches (50mm).

STORAGE & HANDLING PROTECTING

During storage and handling, Green Insulation boards should be protected from the weather & petroleum-based solvents, Adhesives and direct contact with certain coal-tar products. Green Insulation should be protected from direct contact with asphalt at temperatures more than 250° F (121oC),and it should not be exposed to flames or other ignition sources.

COVER WITH ROOF MEMBRANCE

It is recommended that insulation boards be covered with a complete roof membrane by the end of each day's work. For protected membrane roof systems using Green Insulation, It is suggested that the insulation be secured with appropriate ballast by the end of each day's work.

JOINTS

When double-layer Green Insulation is used, The joints of the insulation boards in the top layer should be vertically staggered & offset from the joints in the under-lying layer. The end joints of adjacent rows of insulation boards should be staggered, and the edges of abutting boards should be in moderate contact.



GREEN INSULATION TECHNICAL DATA

PROPERTIES	UNIT	RESULT	TESTING METHOD
Color		Blue/Pink/White	
Cell Structure		Closed Rigid	
Density (minimum)	kg/m ³	38 ± 10%	ASTMD 1622 BS4370
Thermal conductivity	BTU in/ft ² .hr ^o f W/mk	0.17 0.025	ASTM C-177 C-518
Compressive strength	kPa	410	C-165 ASTM 1621-5
R-Value	/ Inch	5.8	ASTM C-518
Fire classification		A	Bs3837
Size: Length Width	mm mm	600 x 1200 1200 X 2400	
Thickness	mm	20 ~ 100	
Edge profile		Butt/Shiplap/Tongue & groove	

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