



HP INDUSTRIES W.L.L

Qatar's 1st Thermal Insulation and Construction Chemicals Company complying and approved by UNGC (United Nations Global Compact).

Providing enduring GReen FOAM XPS Thermal Insulation Board for a sustainable future.



CONSERVING A GREENER WORLD FOR FUTURE GENERATIONS

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INTRODUCTION



Our Vision

To be a leading international product of sustainable manufacturing for building materials.



Our Mission

Hitting the National sustainability goals set by the State of Qatar for the country's growth, under the patronage and leadership of His Highness.



Our Quality Policy

HPI products are built on German knowledge and experience to ensure customer satisfaction, product consistency, water resistance, reliability and maintaining a high return value for long periods to suit the various extreme weather conditions.

HP Industries GReeN FOAM is produced in Doha, Qatar using the latest computerized state of the art technology. HPI GReeN FOAM is manufactured with a 'Green Cooling technology' by using versatile type of blowing agents. HPI GReeN FOAM introduces next generation blowing agents for insulating your buildings purely with green concepts.

HP Industries GReeN FOAM Extruded Polystyrene panels are specially formulated to suit the very harsh Middle Eastern climatic conditions. HP Industries GReeN FOAM is an intelligent way to insulate a building. It has the lowest global warming and acid rain potential and highest energy saving for the thermal insulation work.

HPI GReeN FOAM is available in several different densities and has an R-value at 75°F (24°C) of about 5 per inch (25mm) of thickness. HP Industries GReeN FOAM can be used for Roofs, Walls, Floors or even Basement.

Some salient features of GReeN FOAM 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, walls and floors.
- 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 : 25, 30, 40, 50, 75, 80 mm.

WHY DO WE NEED THERMAL INSULATION?

- In extremely hot climates, the high energy element for air conditioning is constantly increasing. One of the best ways to conserve energy is to provide high class insulation for buildings with an eco-friendly diversifiable insulation board.

HOW ARE WE DIFFERENT FROM OTHERS?

- HPI unique GReen FOAM product technology is devoid of CFC (Chlorofluorocarbon) and HCFC (Hydrochlorofluorocarbon) making it free from Ozone Depletion Potential (ODP) and Global Warming Potential (GWP).
- Our speciality formulation makes the product a uniform combination of high performance and extremely fire retardant properties. ie, it is 100% non-flammable.
- HPI GReen FOAM creates refreshingly cool and energy efficient environments.
- HPI GReen FOAM is certified and approved by UNGC (United Nations Global Compact). One of its kind in Qatar.
- HPI GReen FOAM has very high insulating capacity which enables it to withstand extreme heat upto 80°C (176°F). Especially suitable for middle eastern hot climatic conditions.

HPI GReen FOAM

- HPI GReen Foam extruded polystyrene panel has sealed cells, linked to one another and is produced by a continuous, fully automated extrusion process in accordance with international specifications and standards. This particular technology makes it possible to guarantee exceptional mechanical properties, resistance to diffusion of water vapour, uniform density distribution, dimensional stability, very high compressive strength, ageing resistance and also immunity against insects, pests, bacteria, rodent attacks and micro-organisms as it does not provide them with nutrients.

PRODUCT DESCRIPTION

S/N	PRODUCT	DESCRIPTION	BRAND DIMENSION (MM)
1.	GReen FOAM ND (R&W) 32 - 35 kg/m ³	Extruded Polystyrene rigid foam with skin, available with and without shiplap edges.	Width : 600 Length : 1250 Thickness : 50,75, 80 25, 30, 40 available in straight edge only.
2.	GReen FOAM MD (R&F) 38 - 42 kg/m ³	Extruded Polystyrene rigid foam with dense skin, available with and without shiplap edges.	Width : 600 Length : 1250 Thickness : 50, 75, 80 25, 30, 40 available in straight edge only.
3.	GReen FOAM HD (F) 40-45 kg/m ³	Extruded Polystyrene rigid foam with very hard skin, available with and without shiplap edges.	Width : 600 Length : 1250 Thickness : 50, 75, 80 25, 30, 40 available in straight edge only.

APPLICATIONS

ROOF

HP Industries GReen FOAM ND (R&W) and GReen FOAM MD (R&F) 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 HP Industries GReen FOAM insulation boards can be installed loose laid or spot bonded to the waterproofing membrane. In protected roof membrane assemblies, ballast is applied after HP Industries GReen FOAM 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 HP Industries GReen FOAM roof insulation board.

WALLS

HP Industries GReen FOAM ND (R&W) can be used as wall insulation also. It can be applied in several ways including as a sandwich application.

FLOORS

Heavy duty HP Industries GReen FOAM HD (F) and GReen FOAM MD (R&F) can be used for floor applications also. The higher density and compressive strength makes it ideal for such applications.

MULTIPLE-LAYER INSULATION

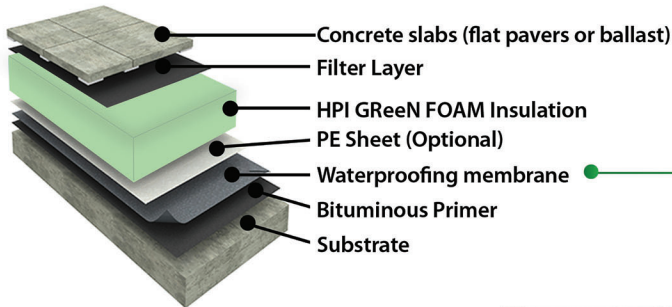
The recommended specification is for multiple-layer insulation. HP Industries urges double-layer application, especially when the total required thickness of GReen FOAM insulation is more than 2 inches (50 mm). Cover boards are considered to be components of a multiple-layer insulation assembly.

TECHNICAL DATA

S/N	Characteristics (Typical Values)	Test Method	Unit	GReen FOAM ND (R&W)	GReen FOAM MD (R&F)	GReen FOAM HD (F)
1.	Density Range	ASTM D 1622 DIN 53420	Kg/m ³ lb/ft. ³	32-35 2.0-2.2	38-42 2.4-2.6	40-45 2.5 - 2.8
2.	Thermal Conductivity (k)	ASTM C 518	W/m ² *k	0.029	0.028	0.027
3.	Compressive Strength at 10% deflection	ASTM D 1621	Kpa psi	270-340 39-49	320-410 46-58	410-630 58-92
4.	Water Vapour Diffusion resistance factor	DIN 52615	μ	100-200	150-220	160-230
5.	Water Vapour Permeability	ASTM E 96	g/hm ²	0.4-0.6	0.4-0.6	0.4-0.6
6.	Water Absorption by Submersion	BSEN 12087 ASTM D 2842 (+1% by Vol. Precision) BS EN 1609:1997	% by Vol. % by Vol. Kg/m ²	<0.3 <0.1 <0.1	<0.3 <0.1 <0.1	<0.3 <0.1 <0.1
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 Resting Fire Classification	ISO 11925-2 DIN/ 4102	None Building Material Class	None B2 too difficult to ignite	None B2 too difficult to ignite	None 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. HP INDUSTRIES reserves the possibility to change, without warning, the technical characteristics in order to make the product more responding to the application requirements. All values are subject to 5-10% tolerance.

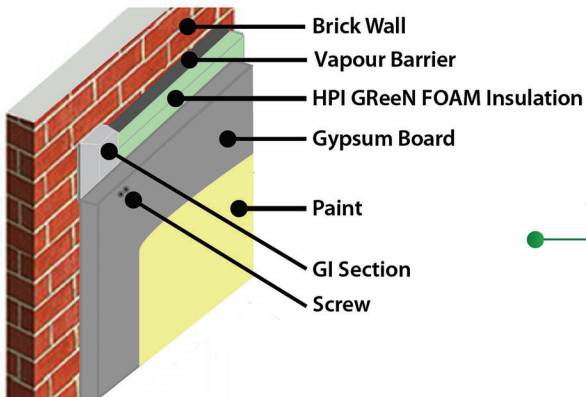
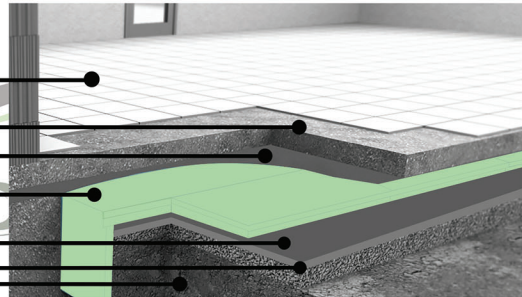
APPLICATIONS SCENARIOS



Typical Application Scenario - Roof

Typical Application Scenario - Floor

- Floor
- RCC Slab
- Polyethylene Sheet (optional)
- HPI GReeN FOAM Insulation
- Waterproofing Membrane
- Bituminous Primer
- Substrate



Typical Application Scenario - Wall (Internal)

STORAGE AND HANDLING

HP Industries GReeN FOAM should be stored in a flat surface. Material should be stored in covered areas away from direct sunlight and ultraviolet rays.



UNITED NATIONS

GLOBAL COMPACT

visit : www.unglobalcompact.org



**MADE IN
QATAR**

HP INDUSTRIES W.L.L IS APPROVED BY UNGC AT SIGNATORY LEVEL

HP INDUSTRIES W.L.L

Street number 1, New Industrial Zone, Doha-Qatar

Phone - +974 44433381

Fax - +974 44433382

Email - info@hpiqatar.com / sales@hpiqatar.com

Website - www.hpiqatar.com