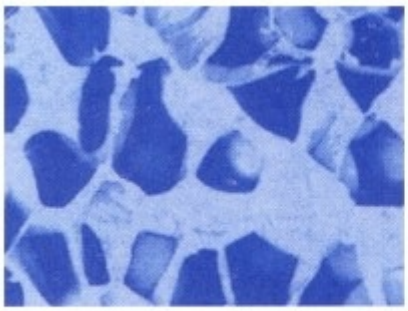
KURTIN NEW MATERIAL TECH / KURTIN BUILDING MATERIAL
OFFICE: FLOOR 8, UNIT 1, BUILDING 3, ZHIDI MANSION, NO.77 JINCHENG ROAD, XIAOSHAN DISTRICT, HANGZHOU CITY, ZHEJIANG PROVINCE P.R.CHINA
TEL：+86-571-22828660 **FAX：+86-571-22828661**
URL：https://www.kurtin.cn **E-mail：info@kurtin.cn**

MATERIAL TECHNICAL DATA SHEET

XPS FOAM BOARD

Our XPS board is a rigid foam board made of polystyrene resin plus other raw materials and polymers, mixed by heating while injecting a catalyst, and then extrusion molding. Its scientific name is extruded polystyrene board (XPS), XPS has a perfect closed-cell honeycomb structure. This structure makes our XPS board have very low water absorption (almost no water absorption), low thermal conductivity, high resistance. Compressive and anti-aging (there is almost no aging decomposition in normal use).

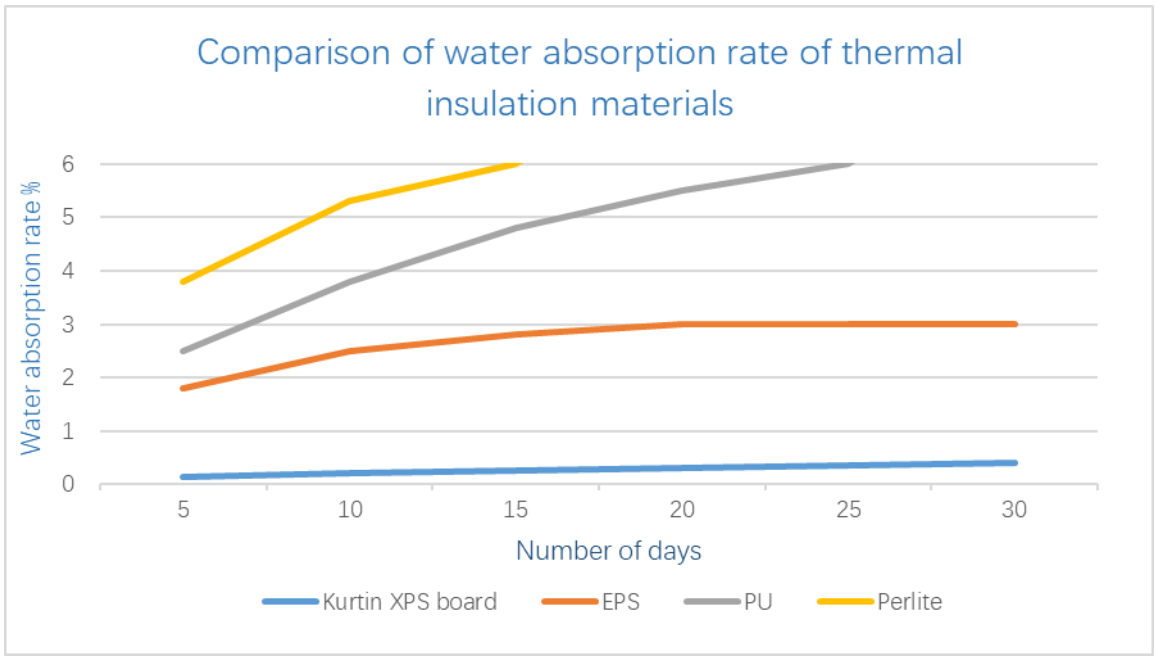


XPS closed cell honeycomb structure

General foam structure

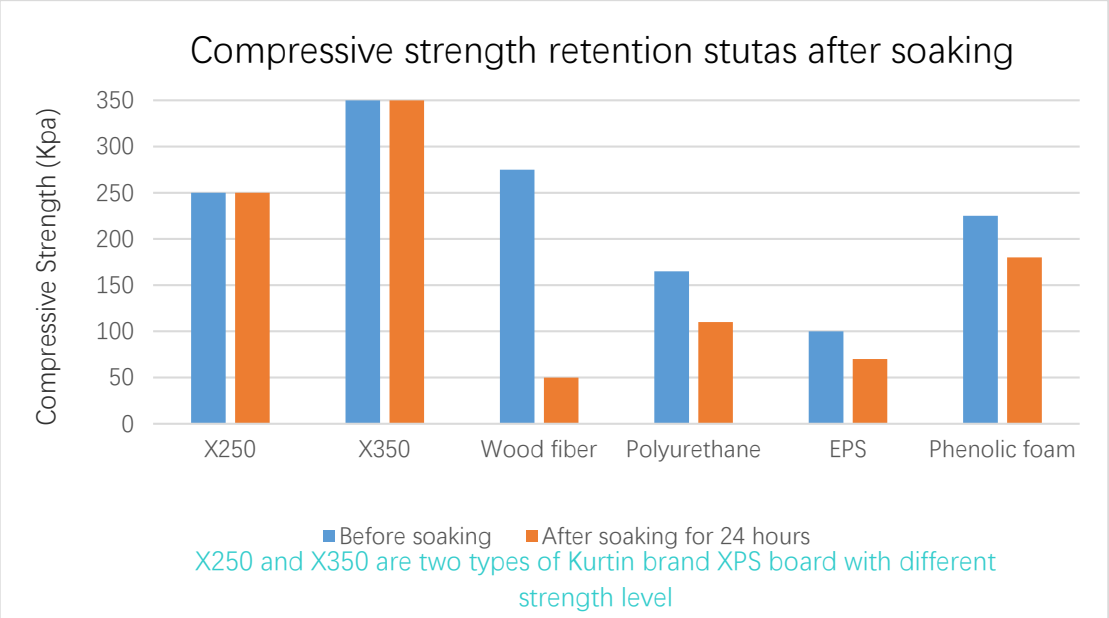
Water Absorption

As a perfect thermal insulation material, the water absorption rate is an extremely important technical index, because the high water absorption rate will cause the thermal insulation performance to deteriorate. In other words, as the water absorption rate increases, the thermal insulation performance of the thermal insulation material begins to decrease, because the water will accelerate. The heat transfer rate is more serious. The high water absorption rate usually causes the aging and decomposition of the insulation material. The water molecules in the thermal insulation material will expand and contract, evaporate, freeze, and thaw, which will cause the structure to slowly decompose and age. The layer will lose its effect and further cause the insulation structural layer to be renovated. The closed-cell structure of Kurtin XPS board can effectively prevent the penetration of water molecules (including water vapor). Even if it is mechanically damaged during construction, Kurtin XPS board can effectively maintain the function of low water absorption due to the tight and tight honeycomb structure. It is almost impossible to cause aging because it effectively prevents the penetration of water molecules and is not hydrophilic.



High Compressive Strength

XPS board (Continuous Extrusion) is more superior compare to traditional EPS board (expanded), and the extrusion process can make the production with continuous and uniform surface (closed cell honeycomb structure). These honeycomb structures have a uniform thickness and there is no gap at all. This type of closed-cell structure material has a very high compressive strength and a compression range of 200-700 kpa.



X250 and X350 are two types of Kurtin brand XPS board with different strength level

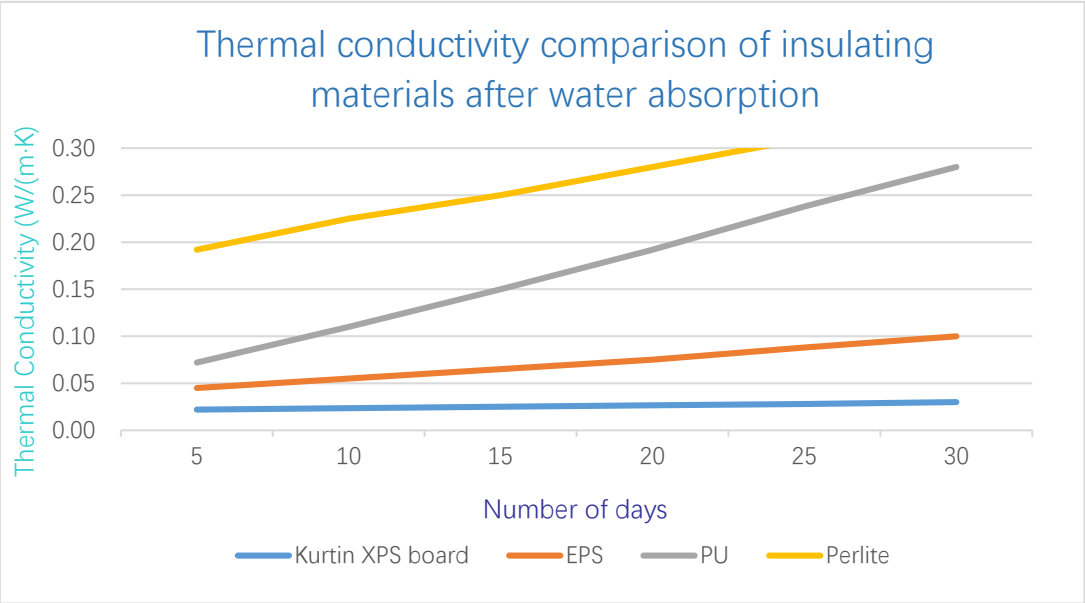
Good sound insulation

Frequency (HZ)	Sound absorption coefficient (%)	
	On the pedestal No. 4	On the pedestal No. 7
125	1	38
250	3	25
500	5	17
1000	14	15
2000	49	9
4000	19	15

Kurtin brand extruded foam insulation board has unique noise reduction and noise reduction performance, which can be used in hotels, entertainment places, office buildings, residential rooms, and floors to reduce external interference.

Thermal Conductivity

Low thermal conductivity is a necessary requirement for all insulation materials. XPS is made of polystyrene (PS). It is well known that polystyrene itself is an excellent insulation material, and it is produced by extrusion. The closed cell honeycomb structure is more effective in preventing heat conduction. Insulation materials should be considered not only for the thermal conductivity, but also for the thickness and weight of different insulation materials for the same thermal resistance. The thicker the insulation material is, the more inconvenient the construction is. The larger the bulk density of the insulation material, the more the structural load is increased, which indirectly causes increase in cost. The following chart shows Thermal conductivity comparison of insulating material after water absorption.



Good flame retardant performance

Kurtin provides XPS products with flame retardant performance. Common grade for flame retardant are B2 and B1. They can fully meet the performance requirements of fire retardant for thermal insulation products in factory buildings, exhibition centers, stadiums, and high-end shopping malls.

SPECIFIC INFORMATION	
Density	28-55Kg/m³
Thermal conductivity, 90 days, 10°C	0.028~0.03 W/mK
Compressive strength	200-700Kpa
Tensile strength	≥250Kpa
Water absorption	≤ 1.00%Vol-%
Dimensional Stability	%≤1.0
Temperature limits	-50°C, +75°C

Characteristic of High Density XPS Foam Board

- **Stable performance and anti-aging:** Our extruded polystyrene (XPS) insulation boards can be used for 35-50 years.
- **Resistance to compression:** compare with other thermal insulation material, XPS foam board has better compressive strength(200-700Kpa), which make it the more ideal solution for heavy domestic or industrial loads.
- **Water resistance:** Polyfoam is almost 100% closed cell and as such is unaffected by moisture.
- **Resistance to deformation**
- **Resistance to impact**
- **Various shapes:** the XPS foam board allows specific edge details and surface finishes to be cut into almost any shape of boards to make them perfectly fit for the job as possible.
- **Recyclable:** Our XPS foam board is made with 100% fresh material and free of HBCD. It is safe to human being and environment. Can be 100% recycled.

Surface Treatment can be made

1. Smooth Surface
2. Rough Surface
3. Grooved and Rough Surface
4. Embossing Surface

Edge Treatment can be made.

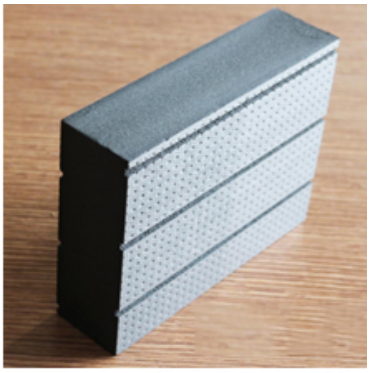
1. Square edge
2. SL over lap edge
3. Tougued and grooved edge

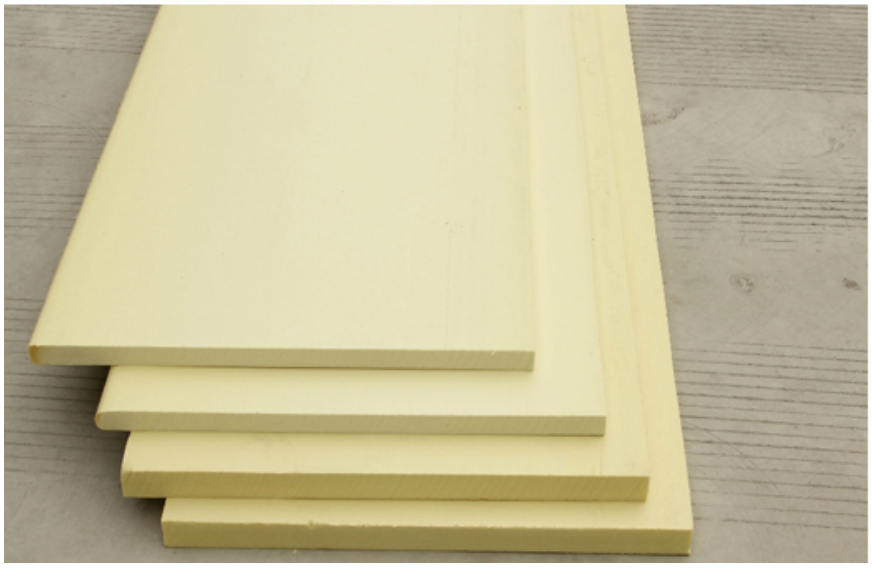
Fire Retardant can be made

1. No fire retardant
2. Fire retardant B2
3. Fire retardant B1

XPS Sizes

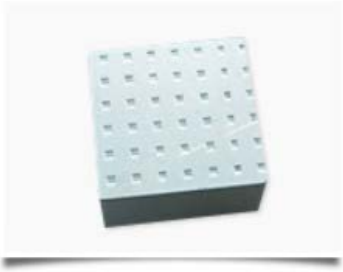
Thickness	Width	Length
6-10mm	600mm	1200mm
12-18mm	600-1200mm	1200-2400mm
20-40mm	600-1320mm	1200-12000mm
45-60mm	600-1200mm	1200-12000mm
70-140mm	600mm	1200-12000mm

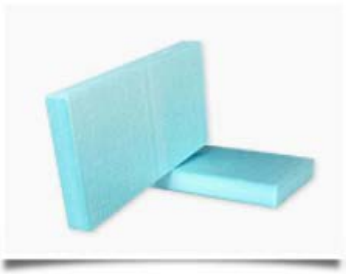




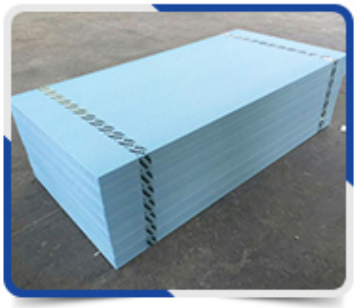







Packing & Loading




Main Function and property

Heat insulation / Waterproof / Fireproof / Sound proof / Anti-corrosion / Anti-aging / Light weight / High compressive strength / Good thermal conductivity / Low water absorption /

Product use

Wall insulation / Floor Heating / Floor Insulation / Roof Insulation / Sandwich Panel / Cold Storage Insulation / Cold Storage Moving Truck / Buildings / Airport /

Delivery time

Quantity(Cubic Meters)	1 - 65	66 - 130	131 - 200	>200
Est. Time(days)	8	10	12	>15