

**APPLICATION**

- PBE Board Special in the form of a board are the most convenient products for roof sandwich panel producers which have their own trapeze cutting equipment integrated into their production process.
- Cut to size trapezes are products which can go directly into the process of roof sandwich panel production without additional pre-cutting required and are therefore suitable for producers without cutting equipment.

**TECHNICAL PROPERTIES**

- Reaction to fire: Euroclass A1
- Product customized according to needs of the customer

**KNAUF INSULATION PBE BOARD SPECIAL (PBE BSP)**

Contoured strips cut out of boards with horizontally-oriented fibres

**DESCRIPTION**

KNAUF INSULATION PBE BSP are trapeze contoured strips cut out of rock mineral wool boards with horizontally-oriented fibres. PBE Board Special is also available as a board prepared to cut-out trapeze strips.

**PREFERENCES**

- Available as board or as cut-to-size trapeze strips
- Fire-resistant - melting point above 1,000°C
- Non-combustibility
- Dimensional stability



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**HEALTH AND ENVIRONMENTAL PROTECTION**

The incorporation of insulation material from mineral wool makes it possible to build healthy and comfortable living spaces as its properties improve the microclimate in a room and, at the same time ensure excellent thermal, sound and fire protection. Products are tested according to Directives 97/69/EC, for which they were granted the »Test Certificate of Bio-solubility«, demonstrating their health safety. Knauf Insulation products are also ecologically oriented, as they reduce the consumption of thermal energy sources, thereby reducing environmental pollution. It is also of great importance that the production procedure of mineral wool is carried out in a closed circuit, i.e. production process waste is recycled in briquette manufacturing and then returned back to the production line.

As part of our policy of continuous product development, we reserve the right to revise specifications without notice. The information given in the brochure is correct to the best of our knowledge. It provides general information only and users should verify whether the products described are suitable for their specific requirements.



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**Prefabricated Building Element Insulation**

# Prefabricated Building Element Insulation



## MAIN PROPERTIES

- **THERMAL INSULATION PROPERTIES;** excellent thermal conductivity values
- **NON-COMBUSTIBILITY –** highest possible Euroclass A1 fire classification according to European standards (melting point above 1,000°C)
- **SUPERB ACOUSTIC PERFORMANCE;** due to the open fibrous structure rock mineral wool has the ability to absorb and reduce high levels of sound
- **ENERGY SAVING MATERIAL;** for reduced energy bills and CO<sub>2</sub> emissions
- **VAPOUR PERMEABILITY;** because of its fibrous structure, rock mineral wool is permeable to vapour
- **WATER REPELLENCE;** its fibres are permanently water-repellent
- **HIGHLY SUSTAINABLE;** non-hazardous to personal health and the environment. Rock mineral wool is free from CFCs, HCFCs and any other material with ozone depletion potential in their manufacture and content and represents no known threat to the environment
- **PERMANENTLY STABLE DIMENSIONS;** products do not change in length or width with fluctuations in humidity or temperature
- **RESISTANCE TO MICRO-ORGANISMS;** rock mineral wool is non-hygroscopic, rot proof, does not sustain vermin and will not encourage the growth of fungi, mould or bacteria



Prefabricated building elements are widely used in construction of non-residential buildings. Energy efficiency, low noise pollution and fire safety are key requirements which determine the design of such buildings. Rock mineral wool sandwich panels are the most convenient solution for meeting all of those requirements.

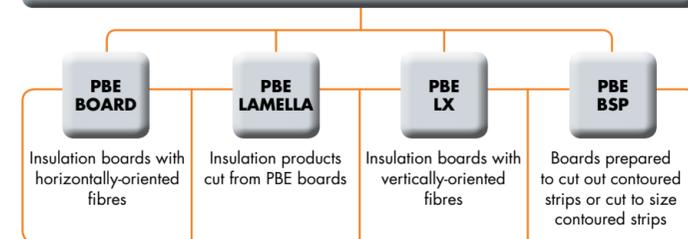
Knauf Insulation rock mineral wool is widely used as the core of sandwich panels owing to its excellent fire resistance, non-combustibility, thermal and sound insulation properties. Due to advanced mechanical properties, our products are cost effective solutions for even the most demanding constructions.

**We build partnership through high quality products, excellent service and permanent support to your development projects.**

We provide customized insulation solutions for:

- Façade elements
- Roof elements
- Partition walls

### KNAUF INSULATION PREFABRICATED BUILDING ELEMENTS SANDWICH PANEL PRODUCTS



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## KNAUF INSULATION PBE BOARD (PBE B) Insulation boards with horizontally-oriented fibres

### DESCRIPTION

**KNAUF INSULATION PBE B** are rock mineral wool boards with horizontally-oriented fibres.

Several types of PBE Boards are available to meet different performance levels (Basic, Premium, High and Supreme).

### PREFERENCES

- One product for several final thicknesses
- Excellent acoustic properties
- Good thermal insulation properties
- Fire-resistant - melting point above 1,000°C
- Non-combustibility
- Dimensional stability



### APPLICATION

During the process of sandwich panel production PBE Boards are cut into lamellas, creating vertically oriented fibres and ensuring excellent mechanical properties.

### TECHNICAL PROPERTIES

- Excellent mechanical properties (such as tensile, compression and shear) when used as lamellas
- Reaction to fire: Euroclass A1

### STANDARD DIMENSIONS

- **Thickness:** 80 - 200 mm +/- 1 mm, upon specific request
- **Length & Width:** customized according to needs of the customer

## KNAUF INSULATION PBE LAMELLA (PBE L) Insulation products cut from PBE Boards

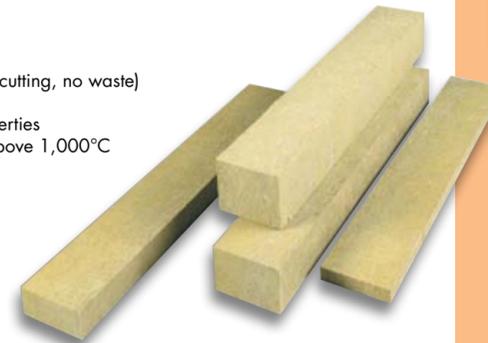
### DESCRIPTION

**KNAUF INSULATION PBE L** are rock mineral wool products cut from PBE Boards.

Several types of lamellas are available to meet different performance levels (Basic, Premium, High and Supreme).

### PREFERENCES

- Lamellas are ready-to-use (no cutting, no waste)
- Excellent acoustic properties
- Good thermal insulation properties
- Fire-resistant - melting point above 1,000°C
- Non-combustibility
- Dimensional stability



### APPLICATION

PBE Lamellas are used by producers that do not have their own line for cutting lamellas from rock mineral wool boards.

### TECHNICAL PROPERTIES

- Excellent mechanical properties
- Reaction to fire: Euroclass A1
- Product customized according to needs of the customer

## KNAUF INSULATION PBE LX Insulation boards with preliminary vertically-oriented fibres

### DESCRIPTION

**KNAUF INSULATION PBE LX** are rock mineral wool boards with vertically-oriented fibres and excellent mechanical properties which are comparable to PBE Lamellas.

Several types of LX are available to meet different performance levels (Basic, Premium, High and Supreme).

### PREFERENCES

- Boards are ready-to-use (no cutting, no waste)
- Easy handling
- Excellent acoustic properties
- Good thermal insulation properties
- Fire-resistant - melting point above 1,000°C
- Non-combustibility
- Dimensional stability
- Optionally boards can have profiled edges designed in accordance with customer specifications



### APPLICATION

PBE LX products replace the need for a lamella cutting machine in the customer's manufacturing process, making it more flexible. They are the most convenient product for direct introduction into sandwich panels.

### TECHNICAL PROPERTIES

- Excellent mechanical properties
- Thermal conductivity: 0.039 W/mK
- Reaction to fire: Euroclass A1

### STANDARD DIMENSIONS OF KNAUF INSULATION PBE LX

THICKNESS	LENGTH	WIDTH
20 - 150 mm +/- 1 mm	2,000 mm	300 - 1,200 mm

Other dimensions are available upon specific request



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