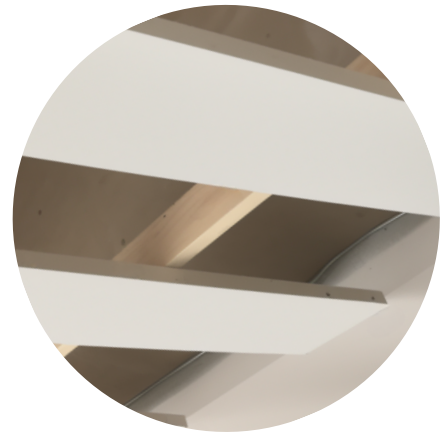**POWERBOARD**
POWERED BY LAMINAHEAT

The Most Energy Efficient Far-Infrared Heating system!

Using The PowerBoard System, what is your monthly heating bill going to look like?

246.57 /Month

24KWH /Day

120㎡ EPC C3
Three Bedroom House

During the Day Living room on for 8 Hours. (25% of space)
At night primarily all three bedrooms are on. (75% of space)

115 /Month

14.02KWH /Day

60㎡ EPC C3
One Bedroom Flat

Single Working Professional
Daytime is at Work, system is off.
When at home has the whole system on (6pm-7am)

Electricty Fee is calculated using a **0.34P/Kwh** Rate

Why is The PowerBoard Heating System So Energy Efficient?

A lot of the current heating solutions on the market such as underfloor water heating and radiators, have slow reaction times, rely heavily on water temperature for their heating effect, need to create the heat in a distanced boiler/pump and in the case of UFH also have to heat up a lot of additional mass. Every one of these decreases efficiency and increases your energy Bill!

The PowerBoard Heating System in contrast is installed just 3-5mm from the surface of the room. This in addition to it's fast heat up time, 99.7% electricity into heat conversion percentage, and the fact that it heats via radiative heating all allow the system to minimize energy consumption while maximizing comfort!

The PowerBoard Heating System is aso ideal for Smart Heating Systems. Optimize energy usage by turning off the heating when the room is vacant and turning it back on half an hour prior to returning through the use of a pre programmable smart control. Maximizing Comfort while reducing your energy bill!

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How does The PowerBoard Heating System compare across different levels of building quality?

POWERBOARD
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Comparing insulation levels, we have the EPC C3 house, the better-insulated EPC C1 house, and the highly insulated KFW70/EPC B3 house. The below represents the heating system performance, based on an average outside temperature of -2 °C and a thermostat setting of 22°C.

**Well insulated homes result in significantly reduced energy bills.**

	EPC C3 HOUSE	EPC C1 HOUSE	KFW70/B3 HOUSE
Primary Energy Demand	100 KWH/㎡*a	66 KWH/㎡*a	53 KWH/㎡*a
Installed Wattage	90 w/㎡	68 w/㎡	59 w/㎡
Heat up time	20-30分钟	15-20分钟	15-20分钟
Total PowerBoard Installation Area	26%	20%	18%
KWH/㎡ (1 Hour)	0.018	0.015	0.012
KWH/100㎡ (1 Hour)	1.8	1.5	1.2
(10)	183.6£/Month	153£/Month	122.4£/Month
KWH/100㎡ (10 Hour)	18	15	12
Full heating system on 24/7	440.64£/Month	367.2/Month	293.6£/Month
KWH/100㎡ (24 Hour)	43.2	36	28.8

The full system is on 10 hours a day. This is representative of the normal usage of this heating system.

Electricty Fee is calculated using a **0.34**P/Kwh Rate

Energy Consumption Case Study

The below is a real usage scenario from an customer in Austria where we recorded the real-time energy consumption for the week of January 1 to January 7, 2021.

Heated area
130㎡

This is a KFW70//B3 house. The owners have the system on 24/7.

Avg. Outdoor Temp **1.08°C**
Avg. Indoor Temp **23.54°C**
Daily Energy Consumption **33.68 KWH**
7 Day Energy Consumption **235.77 KWH**

Legend: Indoor Temperature, Outdoor Temperature, Heating Energy Consumption
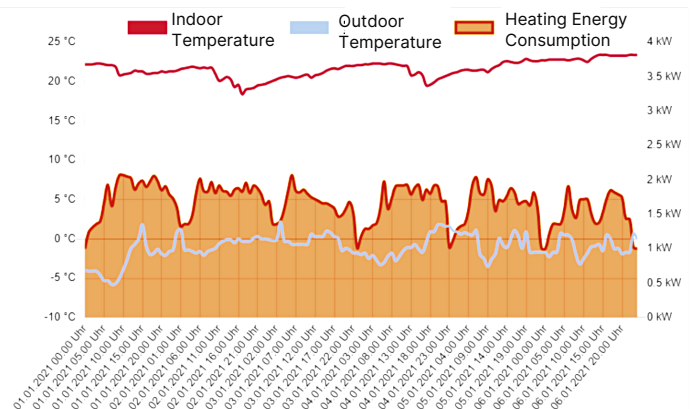
Notice:

*Under a normal usage scenorio, is The PowerBoard Heating System follows this cycle: the system is fully on until the set temperature is reached 22-24C. Thereafter depending on the insulation quality of the space the system will only be on for 1/3-1/5th of the time.

*If the project is not properly designed or the user has abnormal habits (such as opening windows frequently), the energy consumption value will increase accordingly.

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