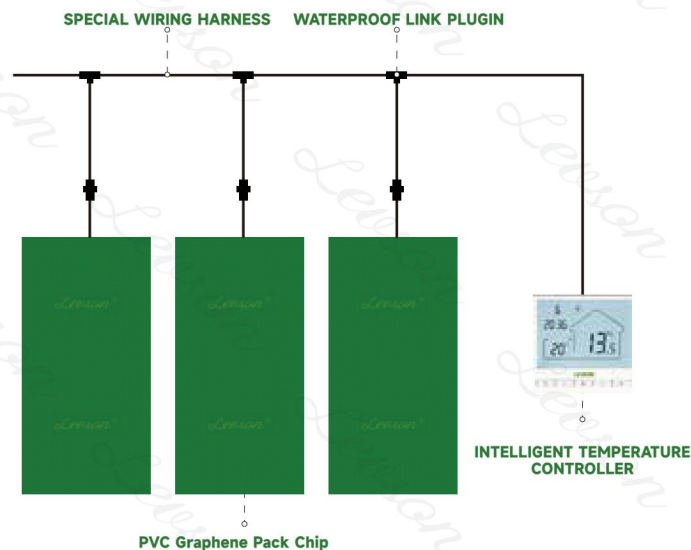




Graphene Heating Mat

When the graphene heating mat is energised, electrons within the graphene structure are activated under the influence of an electric field.

During this process, electron movement and collisions within the carbon lattice generate heat energy. Meanwhile, the excited electrons produce a photo-thermal effect and a near-field electromagnetic response.

As graphene absorbs energy, it facilitates electrothermal conversion and enhances far-infrared radiation emission. This process supports efficient heat generation with low energy consumption and improved thermal consistency.

Graphene heating mats are designed for versatile applications, including residential and commercial heating systems, floor and wall heating solutions, automotive thermal management, greenhouse temperature control, livestock and agricultural heating, as well as industrial insulation and de-icing systems.

Specification

Input Voltage : 120V/230V ($\pm 10\%$) ,50/60Hz
Power Density : 120 / 140 / 240 W/m² ($\pm 10\%$)
Operating Temperature : 35/38/46 °C
Heat Resistance Temperature(Max.) : 80 °C
Width : 547mm/Customised $\pm 1\%$
Length : 250mm*N+100mm(integer N ≤ 32)
Thickness : 1.14mm
Branch Wiring Harness :
 2-core $\times$ 1.0 mm² (2 $\times$ 1 mm²)
Sealing edge width : 14 mm

Our Graphene Heating Mat



Intelligent Control & Energy Saving

Mobile APP remote temperature control. Intelligent system for room and time management, maximising comfort and energy efficiency.



Long Service Life

Zero attenuation, zero maintenance, long service life and lower running costs



Environmental Safety

Waterproof grade IPX6, non-toxic, odourless, silent, with zero electromagnetic radiation and anti-ageing properties.



Convenient Installation

Ultra-thin and lightweight design, does not increase floor height. Easy to install, saving time, effort and labour.



Low Carbon & Energy Efficiency

High efficiency and low energy consumption reduce carbon emissions, supporting a greener and more sustainable heating solution.



Healthy Indoor Comfort

Delivers gentle far-infrared warmth (3-15 μ m), supporting natural thermal comfort and improved indoor wellbeing through even heat distribution.

Application



Commercial & public buildings



Modern Agriculture Applications



Livestock Farming Applications



Other Industrial Applications