



110W Heating Mats



# Heat Mat 110W/sqm Mats

## Low power consumption, ultra-thin underfloor heating mats

### 110W/sqm Underfloor Heating Mats

A professional fast-to-fit system designed to provide an energy-efficient heating system in very well insulated areas. This system is designed for very low heat loss properties including modern new build developments which often have a limited power supply available. 110W mats provide a low power consumption heating system which makes them suitable for use with local renewable energy sources such as PV panels.

110W mats offer a versatile underfloor heating system which can be used to supplement other heating in moderately insulated properties, or as sole source in very well-insulated situations.

- Designed to provide a low power consumption heating system for well-insulated areas
- Suitable to provide sole source heating in modern well insulated buildings
- Integrated earth shield (unlike carbon films), allowing safe installation in wet areas including bathrooms

- Technologically advanced wire design delivers minimal build height combined with a robust high powered heating cable
- Particularly suitable for large areas, where loose heating cables could take three times as long to fit
- Ideal as a wall heating system behind tiles (BEAB approvals do not cover this application)

Product code	Size in m <sup>2</sup>	Wattage	Resistances
PKM-110-0110	1.1m <sup>2</sup>	120W	493 Ω
PKM-110-0140	1.4m <sup>2</sup>	150W	374 Ω
PKM-110-0200	2.0m <sup>2</sup>	220W	257 Ω
PKM-110-0300	3.0m <sup>2</sup>	320W	181 Ω
PKM-110-0410	4.1m <sup>2</sup>	450W	129 Ω
PKM-110-0490	4.9m <sup>2</sup>	540W	106 Ω
PKM-110-0580	5.8m <sup>2</sup>	660W	88 Ω
PKM-110-0700	7.0m <sup>2</sup>	770W	75 Ω
PKM-110-0830	8.3m <sup>2</sup>	930W	62 Ω
PKM-110-0900	9.0m <sup>2</sup>	1020W	56 Ω
PKM-110-1020	10.2m <sup>2</sup>	1090W	53 Ω
PKM-110-1150	11.5m <sup>2</sup>	1250W	46 Ω



# Heat Mat

## Underfloor Heating

Call 01444 247020  
to find out more or  
visit our website at  
[www.heatmat.co.uk](http://www.heatmat.co.uk)

### 110W Mat Features

- Low power consumption heating mats suitable for very well insulated properties
- Perfect for situations where a limited power supply is available
- This system minimises the risk of thermal blocks above the heating elements
- Compatible with thermal insulation boards for increased efficiency
- Pre-spaced heating cable for speedy installation and uniform heat output
- Simple cut-and-turn design enables significantly faster installation than with loose cable
- Ultra-thin fluoropolymer insulated cable ensures minimum build height
- Dual conductor cable design means only one connection lead
- A large range of standard sizes which can be mixed and matched to ensure the perfect fit
- Supplied with a Lifetime Warranty
- Independently BEAB and Semko approved for safety
- Part L Compliant to provide an energy-efficient heating system
- Handmade in Denmark

### Compatible with



Thermostats



Thermal insulation boards



I-primer



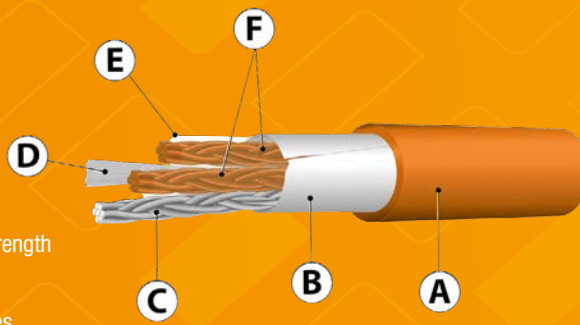
Levelling compound



Additional heating mats

## Only Heat Mat cables include:

- A. Robust PVC (Y) outer insulation
- B. 100% Aluminium earth shield for safety
- C. High load earth drain wire
- D. Fibreglass reinforcement cable for tensile strength
- E. Fluoropolymer insulation rated to 200°C
- F. Litzner style twin spiral wound resistance wires



### Low power consumption benefits

Due to the 110W mats' low power consumption they are perfect for situations where a limited power supply is available, as is often the case in large, new build scenarios. By using 110W mats you reduce the maximum electrical loading by more than 30% compared to installing a 160W system, and up to 32m<sup>2</sup> of heating mats can be powered through a single thermostat without the need for a contactor.

### Combining multiple units

110W heating mats are designed to be laid together with other 110W mats to ensure the perfect fit every time. The mats are wired into the thermostat or junction box in parallel.

### Simple and speedy installation

Heat Mat's electric underfloor heating mats are incredibly simple to install, and in large areas can take one third of the time a loose heating cable would take to fit. The mats can be cut and turned to ensure that they fit the room perfectly, and for particularly complicated areas the cable can be stripped from the mat and laid as a loose cable. The mats readily affix to the floor with the four strips of double-sided tape, and the strong fibreglass mesh above the cable ensures it is protected during tiling.

### Sub-floor surfaces and insulation board

110W mats are only suitable for installation in very well insulated areas, and are the ideal heating system for today's most properties.

In all circumstances we recommend installing the mats directly onto a thermal insulation layer, such as Heat Mat's underfloor heating insulation boards.

### Suitable for nearly any floor covering

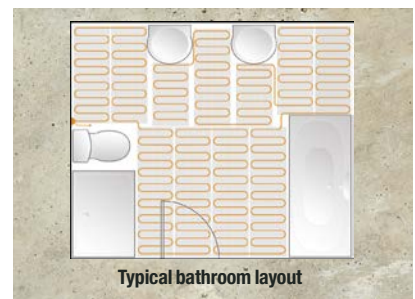
If you are unsure of the final floor covering, but you have a very well insulated property 110W mats can be installed and covered with flexible levelling compound. This allows nearly any floor covering to be laid on top including tiles, stone, carpet, laminate, solid wood, Karndean and vinyl.

### Energy-efficient solution

110W heating mats are almost 100% efficient at converting electricity into heat and they can easily be powered by locally generated electricity from either photovoltaic or wind power sources. When used with Heat Mat's NGTouch thermostat they form a Part L compliant system, and they are also suitable for integration into a home/building automation system.

### Approved and guaranteed

Heat Mat's electric underfloor heating mats are independently BEAB and Semko approved, manufactured in Denmark in our BEAB approved factory, and supplied with a Lifetime Warranty. They are also certified by Semko as having a very low EMC radiation, which is a result of their twin conductor design and 100% aluminium earth shield.



Typical bathroom layout

### 110W Heating Mat Technical Specification

Supply Voltage	240V +/- 10
Power output	110W/sqm
Output range	120W – 1250W
Maximum load	14W/metre
Standard range	1.1m <sup>2</sup> – 11.5m <sup>2</sup>
Mat dimensions	0.5m wide x 2.2m to 23m
Coldtail lead	2m double insulated cable
Wire thickness	2.7mm – 3.2mm
Cable flexibility	Minimum radius 18mm
IP Rating	IPX7
Inner insulation	Fluoropolymer (FEP Y7) 200°C
Outer insulation	PVC (Y) 90°C
Earth protection	100% Aluminium earth shield
Cable reinforcement	Fibreglass strands
Reinforcement mesh	Fibreglass mesh
Fixing materials	4 Rows of double-sided tape
Compliant with	Part L, 17 <sup>th</sup> Edition IEE Wiring Regulations, EN 60335-1:2012+A11, EN 60335-2-96:2002+A1, A2

### Wiring

Heating mats must always be controlled by a suitable electric underfloor heating thermostat with floor temperature limitation. Heat Mat thermostats are rated to 16 Amps, and if a system exceeds this loading a suitably rated contactor should be used. The circuit must be protected by a 30mA RCD and suitably rated fuse or circuit breaker.



### About Heat Mat

With more than 1,200,000m<sup>2</sup> of underfloor heating installed, 20 years' experience of the UK underfloor heating market and a wealth of knowledge on Scandinavian ice and snow melting systems, you can rely on Heat Mat to understand your needs and supply the products to satisfy your requirements.

This is why we are the Professionals' Choice, the number one supplier of electric underfloor heating and ice and snow melting systems to the UK's professional installation market.



### Contact us

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