

# Heat Mat 200W/sqm Heating Mats High power, ultra-thin undertile heating mats

## 200W/sgm Undertile Heating Mats

A professional fast to fit system designed to provide energy efficient tile warming, and room heating, in all types of room. This award winning underfloor heating mat range reacts significantly faster than less powerful systems, and its ultra thin construction ensures floor levels are only raised by a few millimetres.

200W heating mats are a remarkably simple to operate heating system, when used in combination with Heat Mat's 4th Generation NGT thermostat, providing luxurious warm tile or natural stone floors.

- Designed to provide sole source heating, even in conservatories and other high heat loss rooms
- Dramatically reduced response time compared to 100W and 150W/sqm systems
- When used with an intelligent thermostat timer, 200W systems are more energy efficient and cost less to run than lower powered alternatives



- 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

| Product code | Size in m <sup>2</sup> | Wattage | Resistance  |
|--------------|------------------------|---------|-------------|
| PKM-200-0060 | 0.6m <sup>2</sup>      | 130W    | 442 Ω       |
| PKM-200-0100 | 1.0m <sup>2</sup>      | 208W    | 277 Ω       |
| PKM-200-0160 | 1.6m <sup>2</sup>      | 310W    | 186 Ω       |
| PKM-200-0200 | 2.0m <sup>2</sup>      | 405W    | 142 Ω       |
| PKM-200-0260 | 2.6m <sup>2</sup>      | 512W    | 113 Ω       |
| PKM-200-0280 | 2.8m <sup>2</sup>      | 576W    | 100 Ω       |
| PKM-200-0350 | 3.5m <sup>2</sup>      | 719W    | 80 Ω        |
| PKM-200-0420 | 4.2m <sup>2</sup>      | 854W    | 67 Ω        |
| PKM-200-0540 | 5.4m <sup>2</sup>      | 1083W   | 53 Ω        |
| PKM-200-0600 | 6.0m <sup>2</sup>      | 1196W   | 48 Ω        |
| PKM-200-0670 | 6.7m <sup>2</sup>      | 1353W   | 43 Ω        |
| PKM-200-0750 | 7.5m <sup>2</sup>      | 1504W   | <b>38</b> Ω |
| PKM-200-0890 | 8.9m <sup>2</sup>      | 1769W   | <b>33</b> Ω |
| PKM-200-0990 | 9.9m <sup>2</sup>      | 1973W   | 29 Ω        |
|              |                        |         |             |

# **Heat Mat Underfloor Heating**

Call 01444 247020 to find out more or visit our website at www.heatmat.co.uk

### 200W Mat Features

- Can provide a complete heating system in most circumstances, even in conservatories
- · 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 cables
- Ultra-thin Teflon 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
- Made in Denmark

## Compatible with



**Thermal insulation boards** 



Levelling compound

Additional heating mats

# Only Heat Mat cables include:

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

#### Selecting the correct sized heating mats

To start with you will need to calculate the free floor area (FFA). To calculate the FFA you should measure the room to find out the total floor area. You should then subtract from this any areas where kitchen or bathroom furniture will be placed, or where furniture without an air gap beneath it will be positioned. Once you have taken off these areas you have your FFA. For rooms of up to 8m<sup>2</sup>, we recommend choosing a combination of heating mats which cover roughly 90% of your FFA, and for rooms larger than 8m<sup>2</sup> we recommend covering around 95% of the FFA.

#### Combining multiple units

200W heating mats are designed to be laid together with other 200W mats to ensure the perfect fit every time. The mats are wired into the thermostat or junction box in parallel, but it is important to ensure that any other mats used in the same room are also rated at 200W/sqm.

#### Simple and speedy installation

Heat Mat 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

A

B

For the most energy efficient system and the fastest warm up time we recommend laying 200W heating mats onto Heat Mat thermal insulation board. Mats can also be laid onto pre-primed concrete, tile or stone surfaces or suitably secured ply board skimmed with 2mm of tile adhesive.

#### **Bespoke heating mats**

F

E

C

D

Bespoke units can be manufactured to order for hotel or Pod projects, with alternative coverage's, widths, Wattage outputs and cable thicknesses available.

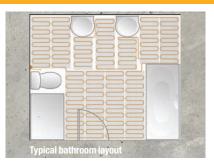
#### **Energy efficient solution**

200W heating mats are almost 100% efficient at converting electricity into heat and they can easily be powered by locally generated electricity from either photo voltaic or wind power sources. When used with Heat Mat's NGT 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.

#### FACTSHEET PKM-200-XXXX-2011



#### 200W Heating Mat Technical Specification

| Supply Voltage    | 230V +/- 10                                                   |  |  |
|-------------------|---------------------------------------------------------------|--|--|
| Power output      | 200W/sqm<br>130W – 1973W                                      |  |  |
| Output range      |                                                               |  |  |
| Maximum load      | 20W/meter                                                     |  |  |
| Standard range    | 0.6m <sup>2</sup> -9.9m <sup>2</sup>                          |  |  |
| Mat dimensions    | 0.5m wide x 1.2m to 19.8m                                     |  |  |
| Coldtail lead     | 2m double insulated cable                                     |  |  |
| Wire thickness    | 2.7mm-3.2mm                                                   |  |  |
| Cable flexibility | Minimum radius 18mm                                           |  |  |
| IP Rating         | IPX7                                                          |  |  |
| Inner insulation  | Teflon (FEP Y7) 200°C                                         |  |  |
| Outer insulation  | PVC (Y) 90°C                                                  |  |  |
| Earth protection  | 100% aluminium earth shield                                   |  |  |
| Cable reinforceme | nt Fibreglass strands                                         |  |  |
| Reinforcement me  | sh Fibreglass mesh                                            |  |  |
| Fixing materials  | 4 rows of double-sided tape                                   |  |  |
| Compliant with    | Part L, 17th Edition IEE Wiring                               |  |  |
|                   | Regulations, EN 60335-1:1998,<br>EN60335-2-17:1999, IEC 60730 |  |  |

#### 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 750,000m<sup>2</sup> of underfloor heating installed and 15 years' experience of the UK underfloor heating market, you can rely on Heat Mat to understand your needs and supply the products to satisfy your requirements.

This is why we are the Professional's Choice, the number one underfloor heating supplier to the professional installation market.







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