



Combymat  
Heating System



# 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)

### Combymat features

- Ideal for use beneath floating laminate and engineered board floors of 10-18mm thickness using the traditional tongue and groove/click system as the joining mechanism
- Combine with Overlay Boards for carpet, vinyl, linoleum and bonded board floors
- No wet trade required for any type of installation
- Dual conductor system so only one power lead per mat
- Supplied with 6mm insulation that provides excellent thermal properties and sound deadening
- Pre-spaced heating cable for speedy installation and uniform heat output
- Simple cut-and-turn design offers many advantages over panel systems
- Aluminium heat dissipation layer ensures an even heat spread with no cold spots
- Once installed the system benefits from earth shielding for safety
- A large range of standard sizes which can be mixed and matched to ensure a perfect fit
- Supplied with a Lifetime Warranty
- 17<sup>th</sup> Edition compliant without any additional earthing required

## Heat Mat Combymat System

### Heating mats for laminate, carpet and vinyl floors

#### Combymat Heating Mats

An earth shielded system designed to be used beneath quality floating laminate and engineered board floors without the requirement for covering with levelling compounds. With the addition of Overlay Boards this versatile system can be also be used beneath carpet, vinyl, linoleum and bonded board floor coverings, without requiring any wet trade. The mats can provide sole source heating in reasonably well insulated rooms, and floor warming in other situations.

The mats are quick to install and can be 'cut-and-turned' like a conventional undertile heating mat. When used with Heat Mat's intelligent thermostats they provide a fast reacting and cost-effective heating system.

- Designed to provide sole source heating in most rooms
- Dual conductor system - only one power lead per heating mat, enabling simple installation
- Once installed the system has a functional earth shield

- Aluminium heat dissipation layer designed to spread the heat out from the cable
- No requirement to cover the mats with an additional levelling compound or moisture barrier, saving build height and costs
- Cut-and-turn design offers significant advantages over panel type systems and speeds up installation
- The 6mm insulation that forms part of the system provides acoustic deadening as well as thermal insulation
- Combymats are not suitable for use in wet areas such as bathrooms and wetrooms

Product code	Size in m <sup>2</sup>	Wattage	Resistance (-5/+10%)
CBM-150-0100	1.0m <sup>2</sup>	150W	378 Ω
CBM-150-0150	1.5m <sup>2</sup>	225W	252 Ω
CBM-150-0200	2.0m <sup>2</sup>	300W	189Ω
CBM-150-0250	2.5m <sup>2</sup>	375W	151 Ω
CBM-150-0300	3.0m <sup>2</sup>	450W	126 Ω
CBM-150-0350	3.5m <sup>2</sup>	525W	108 Ω
CBM-150-0400	4.0m <sup>2</sup>	600W	94 Ω
CBM-150-0450	4.5m <sup>2</sup>	675W	84 Ω
CBM-150-0500	5.0m <sup>2</sup>	750W	76 Ω
CBM-150-0600	6.0m <sup>2</sup>	900W	63 Ω
CBM-150-0700	7.0m <sup>2</sup>	1050W	54 Ω
CBM-150-0800	8.0m <sup>2</sup>	1200W	47 Ω
CBM-150-0900	9.0m <sup>2</sup>	1350W	42 Ω
CBM-150-1000	10.0m <sup>2</sup>	1500W	38 Ω
CBM-150-1200	12.0m <sup>2</sup>	1800W	31 Ω
CBM-150-1500	15.0m <sup>2</sup>	2250W	26 Ω



An example Combymat from the range

### Compatible with



Thermostats



Combymat insulation boards

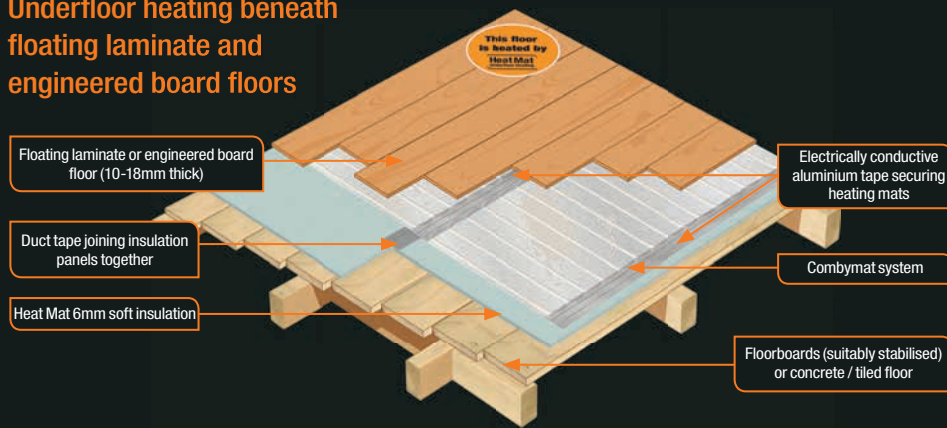


Structural thermal insulation boards



Additional Combymat heating mats

## Underfloor heating beneath floating laminate and engineered board floors



### 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 floor-fixed 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 up to 93% of the FFA.

### Combining multiple units

Combymats are designed to be laid together with other Combymats 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 Combymats are incredibly simple to install and in large areas can take half as long to fit as a carbon or ribbon panel system. The mats can be cut and turned to ensure they fit the room perfectly, and for particularly complicated areas the cable can be stripped from the mat and laid as a loose cable. Aluminium tape must be used to cover any loose cables and also to secure the mats.

### Sub-floor surfaces and insulation board

Heat Mat's 6mm Combymat insulation which must be installed beneath the system offers a good trade off between build height, cost and insulation value.

For particularly badly insulated areas we recommend laying Heat Mat structural thermal insulation boards beneath the 6mm insulation layer. If there is a risk of moisture rising from the floor below you must install a damp proof membrane beneath the insulation.

### Laminate and engineered board

This system is designed for use beneath quality floating laminate and engineered board floors between 10 and 18mm thick. You should always check with the supplier of your flooring that it is suitable for use with electric underfloor heating laid directly beneath it. Boards that have a plastic insert between the end joints can experience more movement than standard flooring, and if this is a concern Heat Mat Overlay Boards should be used.

### Other floor coverings

If Overlay Boards are installed above the Combymat system carpet, vinyl, linoleum and bonded board floors can be laid directly on top, as long as the combined Tog rating is no more than 1.8 Tog.

### Energy efficient solution

Combymats 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 intelligent thermostats they form an energy-efficient system, and they are also suitable for integration into a home/building automation system.



### Combymat System Technical Specification

Supply Voltage	230V +/- 10%
Power output	150W/sqm
Output range	150W – 2250W
Standard range	1.0m <sup>2</sup> – 15.0m <sup>2</sup>
Mat dimensions	0.5m wide x 2.0m to 30.0m
Coldtail lead	3m double insulated cable
Mat thickness	1.0mm
Cable flexibility	Minimum radius 25mm
Insulation	Flouropolymer insulation
Earth protection	Earth screen provided by aluminium foil and tape
Heat dissipation	Aluminium layer
Fixing materials	Loose laid 'floating' system
Compliant with	17 <sup>th</sup> Edition IEE Wiring Regulations, EN60335

### 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. The effectiveness of the earth screen must always be checked before installing the final floor covering or overlay boards.



### About Heat Mat

With more than 1,300,000m<sup>2</sup> of underfloor heating installed, over 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.



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