

## Heat Mat 6mm Red Heating Cable

## Cost-effective and robust In-screed heating cable

## 6mm Red In-screed Underfloor Heating Cable

A robust and cost-effective heating cable designed for new build and major renovation projects, where a 65mm screed will be laid. The cable is perfect for providing energy-efficient room heating and floor warming beneath nearly any floor covering and is fast to install and adds no build height to the construction.

In-screed heating cables provide a remarkably stable room temperature, and the screed bed can be 'charged up' over night to take advantage of cheap rate electricity, before releasing its heat into the room during the day.

 Perfect for any situation where a new screed floor is going to be laid

- Very fast to install and incredibly cost-effective compared to other underfloor heating systems.
  Fix to reinforcement fabric/rebar for the quickest installation
- Commonly fitted in new build flats as, the system is suitable for nearly any floor covering
- The wide range of sizes means only one electrical connection is required for most rooms
- When used with one of Heat Mat's intelligent thermostat timers, provides an exceptionally energy-efficient heating system
- 3-Phase systems and bespoke sizes of heating cable are available where required.

Product code	Length in metres	Wattage	Resistance	175W/m² c-c 12.5cm	150W/m² c-c 15.0cm	125W/m² c-c 17.5cm
PKC-6.0-0120	5.8 m	120 W	464 Ω	0.7 m²	0.8 m <sup>2</sup>	1.0 m <sup>2</sup>
PKC-6.0-0220	10.0 m	220 W	265 Ω	1.3 m²	1.5 m²	1.8 m²
PKC-6.0-0330	15.0 m	330 W	176 Ω	1.9 m²	2.2 m <sup>2</sup>	2.6 m <sup>2</sup>
PKC-6.0-0440	20.0 m	440 W	132 Ω	2.5 m²	3.0 m <sup>2</sup>	3.5 m²
PKC-6.0-0550	25.0 m	550 W	105 Ω	3.1 m <sup>2</sup>	3.7 m²	4.4 m <sup>2</sup>
PKC-6.0-0640	30.0 m	640 W	89Ω	3.6 m <sup>2</sup>	4.4 m²	5.1 m <sup>2</sup>
PKC-6.0-0750	36.0 m	750 W	76 Ω	4.3 m <sup>2</sup>	5.1 m <sup>2</sup>	6.0 m <sup>2</sup>
PKC-6.0-0950	44.0 m	950 W	61 Ω	5.4 m²	6.5 m²	7.6 m²
PKC-6.0-1070	50.0 m	1070 W	54 Ω	6.1 m <sup>2</sup>	7.3 m²	8.6 m <sup>2</sup>
PKC-6.0-1380	64.0 m	1380 W	42 Ω	7.8 m²	9.4 m²	11.0 m <sup>2</sup>
PKC-6.0-1530	71.0 m	1530 W	38 Ω	8.7 m²	10.4 m <sup>2</sup>	12.2 m²
PKC-6.0-1800	84.0 m	1800 W	32 Ω	10.2 m <sup>2</sup>	12.2 m²	14.4 m²
PKC-6.0-2190	101.0 m	2190 W	26 Ω	12.4 m²	14.9 m²	17.5 m²
PKC-6.0-2770	130.0 m	2770 W	21 Ω	15.7 m²	18.8 m²	22.2 m²
PKC-6.0-3530	163.0 m	3530 W	16 Ω	20.1 m <sup>2</sup>	24.0 m <sup>2</sup>	28.2 m <sup>2</sup>
PRA-111-0002	25m Cable fixing band - For rectangular or square rooms over 5m² roughly 1.5m of fixing strip is required for every m² of floor. For all other rooms approximately 2.0m of fixing strip is required for every m² of floor.					
HCA-111-0008	25m Double-sided tape - for securing fixing bands					

# **Heat Mat**Underfloor Heating

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

#### 6mm Red Cable Features

- Perfect for new build or major renovation scenarios where a 65mm screed is going to be laid
- The most cost-effective underfloor heating system to purchase and install; significantly less expensive than wet underfloor heating
- Incredibly fast to install, when fitted directly onto reinforcement fabric
- Suitable for use beneath virtually any floor covering, and provides a very stable temperature
- Alter the distance between heating cables to provide a system with your desired output
- Robust cable design to ensure it is 'building site' safe
- 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 an Extended Warranty
- Part L compliant to provide an energy-efficient heating system
- Made in Denmark in our BEAB Approved Factory
- This cable is only suitable for indoor use. For outdoor installations, use our 7mm Black heating cable

## Compatible with



**Thermostats** 



Thermal insulation boards

**6mm Red Heating Cable Technical** 

240V+/-10%

120W-3530W

10.5m-150.0m

1.0m<sup>2</sup>-28.2m<sup>2</sup>

0.7m<sup>2</sup>-20.1m<sup>2</sup>

PVC(105) 90°C

Fibreglass strands

Not UV resistant or

EN60800 M1

suitable for outdoor use

Part L. 17th Edition IEE Wiring

Regulations, EN 60335-2-96,

2m double insulated cable

Minimum radius 50mm

0.8mm silicon rubber (2G)

100% aluminium earth shield

22W/m

6mm

**Specification** Supply Voltage

Output range Maximum load

Standard range

Coldtail lead

Wire thickness

Cable flexibility

Inner insulation

Outer insulation

Earth protection

**UV Stability** 

Compliant with

Cable reinforcement

IP Rating

Coverage at 125W/m<sup>2</sup>

Coverage at 175W/m<sup>2</sup>



#### Selecting the correct heating cables

To start with, you will need to decide on the heat output of your heating system. For floor warming, or room heating in well insulated areas, we suggest installing the cable between 125W and 150W/m<sup>2</sup> for high heat loss areas. Or, for a faster reacting system, we recommend choosing a minimum of 175W/m<sup>2</sup> output.

Once you have chosen your desired output, measure your room to find the total floor area. Then subtract from this figure any areas where kitchen or bathroom furniture will be installed, or where furniture without an air gap underneath will be positioned. Once you have subtracted these areas you have the Free Floor Area (FFA). If you multiply the FFA by your chosen wattage output, you will have the total output of heating cable you require. You should then pick the most suitable combination of heating cables from the front of this factsheet, to provide you with the closest combined Wattage to your required output.

#### Combining multiple units

6mm Red heating cables are designed to be laid together with other 6mm Red heating cables, for the perfect fit. The cables are wired into the thermostat or junction box, in parallel, and it is important to ensure that all of the cables in a room are installed at roughly the same Wattage output per square meter, for uniform heating across the room.

#### Fast and efficient installation

cable runs.

#### **Energy-efficient heating**

6mm Red heating cables are almost 100% efficient at converting electricity into heat and they can easily be powered from either photovoltaic, 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.

#### **Cost-effective heating system**

Heat Mat's 6mm Red heating cable is the perfect heating system for new build houses and blocks of apartments. It is cost-effective to purchase and install, can be fitted before the building is watertight and is suitable for nearly any floor covering. It adds no build-height and helps create a desirable energy-efficient property.

Heat Mat in-screed heating cables are usually installed directly onto the layer of sub-screed insulation, or on top of the damp proof membrane if one is fitted. The cables are fast to install and can be secured directly to reinforcement fabric/rebar by cable ties, or onto Heat Mat Heat Fix metallic strips, which are fixed to the base with double-sided tape or a nail gun. Although suitable for small rooms, in areas over 10m2 the system becomes exceptionally quick to install per square meter, due to longer

#### Wiring

Heating cables 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.

Fixing materials Heat Fix metal bands can be used

















### **About Heat Mat**

With more than 1,400,000m2 of underfloor heating installed, 22 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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# **Heat Mat Underfloor Heating**



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