

Running costs

The running costs of the system will be dependent on several factors including the type of sub-floor, type of room/building where the installation is taking place, and if it is being used as a primary heating source or simply to warm a cold stone/tile floor.

Typical warm-up times you can expect from the system:

Sub-floor type	Average warm-up
Tile-backer board	15 to 30 minutes
Timber floors	30 minutes to 1 hour
Insulated Concrete	2 to 3 hours
Un-insulated concrete	2 to 5 hours

Electric under-tile heating can be a very economical form of heating, the typical power consumption in an average bathroom where the cable is installed on a timber sub-floor or on an insulated tile-backer board would be about the same as a couple of lightbulbs and would cost just a few pence per day to run. Further details on running costs can be found on our website www.varme.co.uk

Thermostat

A digital thermostat with built-in timer is **included** in every kit.

- Elegant design
- Simple-to-use and programme
- 24 hour/7 day timer
- Comfort and economy temperature settings
- Vacation setting
- Manual over-ride
- Memory back-up
- Supplied with floor sensor



For further information, or to find your local retailer, please visit our website: www.varme.co.uk or email sales@varme.co.uk



Electric under-tile heating



Why electric under-floor heating?

Electric under-floor heating is fast becoming a popular form of heating, especially where cold surfaces such as tiles, stone and marble are used. Under-floor heating was invented by the Romans some 2000 years ago, but today it is used in many countries around the globe.

It is currently used extensively in bathrooms, kitchens, conservatories and sun rooms – in fact it can be used in any room where a tile, stone or marble floor is being fitted.

Suitable sub-floors

Any sub-floor suitable for tiling over should be suitable for the under-tile heating system. In general these will be concrete or plywood, however some water-resistant chipboards may also be OK if adequately fixed down (please check with your tiler). Standard chipboard and MDF are not considered suitable surfaces on which to tile.

The heating capabilities and warm-up times will vary depending on the sub-floor; timber sub-floors and insulated concrete will perform better than un-insulated floors. In all cases the use of an insulated tile-backer board such as 'Marmox' will greatly reduce warm-up times and subsequent running costs.

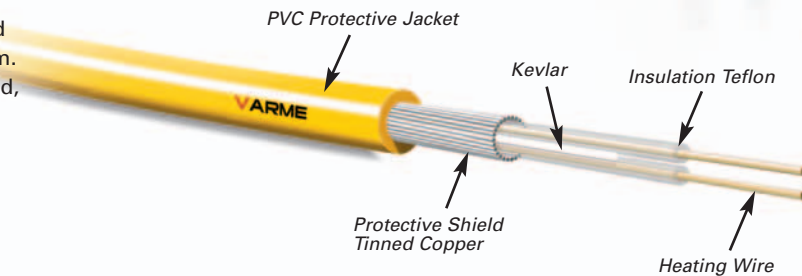
How does it work

The heating cable is simply installed within the flexible tile adhesive layer or thin latex levelling screed. It is then connected to an electrical supply via the digital thermostat, which regulates the floor temperature. The thermostat has its own built-in 7 day timer so the system can be programmed to suit your own individual requirements and lifestyle.

The installation itself is a straightforward DIY job, but we always recommend that the electrical connections are carried out by a qualified electrician in accordance with current wiring regulations.

Heating cable

All our systems use the **latest design** heating cable with an earth screen and a double insulation layer. The cable also contains a built-in return, meaning that you only have to connect it to the mains from one end.



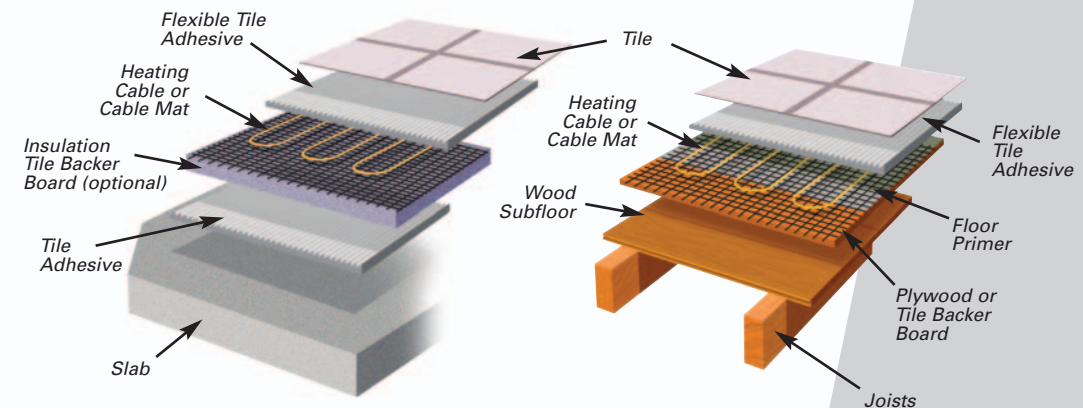
With these design features we are able to offer a **guarantee period of TEN YEARS** from date of purchase.

The main advantages of our systems are:

- **Invisible** – no unsightly radiators or wall-mounted heaters
- **Maintenance free** – no servicing or maintenance needed
- **Economical** – low running costs
- **Controllable** – by means of the digital thermostat supplied
- **3 mm heating cable** – having little effect on the floor height
- **Twin-core heating cable** – just one 'cold' end to connect
- Suitable for timber or concrete sub-floors

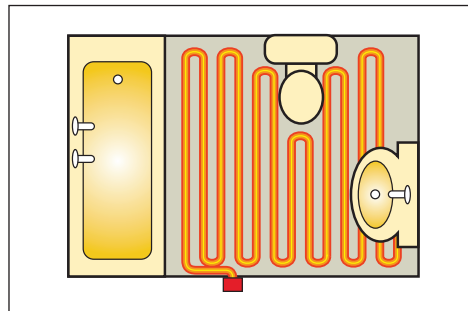
- Suitable for comfort warming and in many cases* as room heating
- Available as cable on a drum or mat
- Wide variety of kits and sizes to suit all applications
- Ideal for kitchens, bathrooms, conservatories and any room with tiled, marble or stone floors
- **10-year guarantee** on heating cable

*The suitability as primary heating will depend on the desired temperature and insulation levels of the building – please check with your retailer or our technical support if in doubt.



How to select the correct system

In order to cater for all requirements and room sizes, we supply a wide range of kit sizes. Selecting the system is in many cases a matter of personal choice, but in general where the system is being installed in a bathroom or small kitchen with fixed objects to work around (such as showers, WC's, or kitchen units), most people find the cable kit an advantage. The cable kit offers the installer complete freedom to space the heating cable evenly over the floor—no matter how awkward the room shape—and thus avoid the problem of any cold spots.



Typical cable installation layout

Cable Kits

Every cable kit comes complete with:

- 3mm twin-conductor heating cable on a drum
- Floor primer and roller
- Fixing tape
- 7 day programmable digital thermostat with built-in timer
- 10-year warranty certificate
- Full, detailed installation instructions with helpline number



Cable kit

Size Chart for Cable Kits			
Product Code	Output in Watts	Cable length in metres	Ideal room coverage in sqm
TPC150	150 watts	15 m	1 - 1.2 sqm
TPC250	250 watts	25 m	1.3 - 2 sqm
TPC350	350 watts	35 m	2.1 - 2.8 sqm
TPC450	450 watts	45 m	2.9 - 3.5 sqm
TPC550	550 watts	55 m	3.6 - 4.1 sqm
TPC650	650 watts	65 m	4.2 - 4.8 sqm
TPC750	750 watts	75 m	4.9 - 5.8 sqm
TPC900	900 watts	90 m	5.9 - 6.9 sqm
TPC1100	1100 watts	110 m	7.0 - 9.0 sqm
TPC1300	1300 watts	130 m	8.0 - 10.0 sqm
TPC1500	1500 watts	150 m	9.5 - 11.5 sqm
TPC1800	1800 watts	180 m	11.6 - 13.5 sqm
TPC2000	2000 watts	110 + 90 m	13.0 - 15.0 sqm
TPC2200	2200 watts	2 x 110 m	14.0 - 17.0 sqm
TPC2400	2400 watts	130 + 110 m	16.0 - 19.0 sqm
TPC2600	2600 watts	2 x 130 m	17.0 - 20 sqm
TPC2800	2800 watts	150 + 130 m	18.5 - 22.0 sqm
TPC3000	3000 watts	2 x 150 m	20.0 - 23.0sqm
TPC3300	3300 watts	180 + 150 m	22.0 - 26.0 sqm

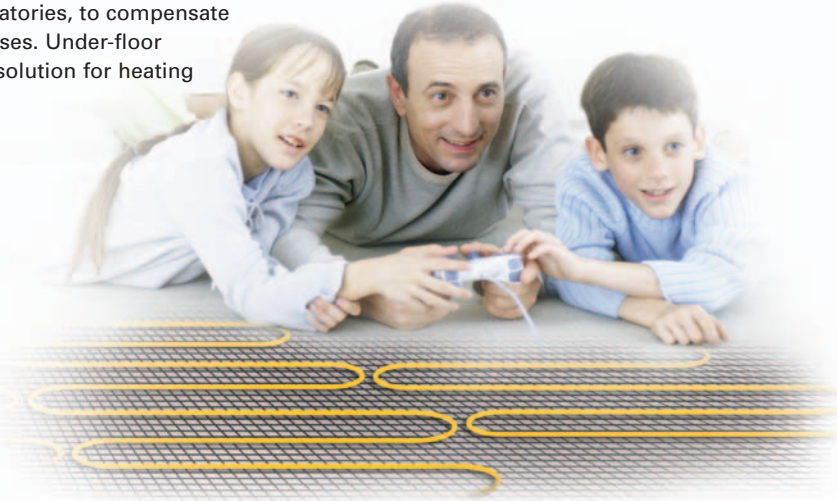
In order to select the correct kit size, you must first measure the **free floor area of the room**.

For larger areas than those detailed on the chart please contact us for further information.

Note: When calculating the size, please remember to **exclude the area taken up by any fixed objects such as baths, showers, kitchen units etc.**

Cable mats

Cable mats are the most popular choice for larger areas. The mats are available in 2 outputs, 150w/sqm for internal rooms and 200w/sqm for conservatories, to compensate for the higher heat losses. Under-floor heating is the perfect solution for heating a conservatory.



Size Chart - Cable Mats

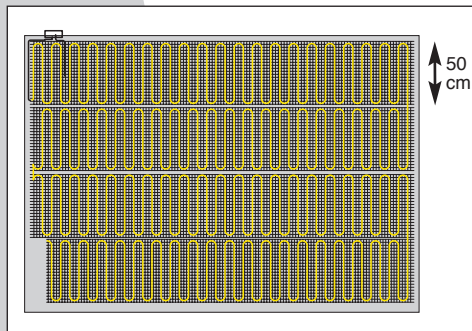
Note: To ensure a comfortable fit, always select a mat, which is at least **10-15% smaller** than the free floor area of the room.

For **internal rooms**, select the '**standard mat**' at 150watts per sqm.

For **conservatories** select the '**VARME Mat 200**' (200watts per sqm)

Every cable mat comes complete with:

- 3mm twin-core heating cable on fibreglass mesh roll
- Floor primer and roller
- Digital thermostat with built-in timer
- 10-year guarantee
- Full instructions



Example of cable mat layout



Cable mat kit

Varme Mat 150 (150w/sqm)

Recommended for all internal rooms, will give approx 130watts per sqm at 85% room coverage.

Product Code	Output (Watts)	Mat Length	Mat Width	Mat Coverage sqm
TPSM150	150w	2m	50cms	1.0 sqm
TPSM225	225w	3m	50cms	1.5 sqm
TPSM300	300w	4m	50cms	2.0 sqm
TPSM375	375w	5m	50cms	2.5 sqm
TPSM450	450w	6m	50cms	3.0 sqm
TPSM600	600w	8m	50cms	4.0 sqm
TPSM750	750w	10m	50cms	5.0 sqm
TPSM900	900w	12m	50cms	6.0 sqm
TPSM1050	1050w	14m	50cms	7.0 sqm
TPSM1200	1200w	16m	50cms	8.0 sqm
TPSM1350	1350w	18m	50cms	9.0 sqm
TPSM1500	1500w	20m	50cms	10.0 sqm
TPSM1650	1650w	22m	50cms	11.0 sqm
TPSM1800	1800w	24m	50cms	12.0 sqm
TPSM1950	1950w	14m+12m	50cms	13.0 sqm
TPSM2100	2100w	14m+14m	50cms	14.0 sqm
TPSM2250	2250w	14m+16m	50cms	15.0 sqm
TPSM2400	2400w	16m+16m	50cms	16.0 sqm
TPSM2550	2550w	16m+18m	50cms	17.0 sqm
TPSM2700	2700w	18m+18m	50cms	18.0 sqm
TPSM2850	2850w	22m+16m	50cms	19.0 sqm
TPSM3000	3000w	24m+16m	50cms	20.0 sqm
TPSM3150	3150w	24m+18m	50cms	21.0 sqm
TPSM3300	3300w	22m+22m	50cms	22.0 sqm
TPSM3450	3450w	22m+24m	50cms	23.0 sqm

Varme Mat 200 (200w/sqm – ideal for conservatories) - suitable for conservatories with concrete floors and rooms with high heat loss - provides a faster warm-up time. **(will give you an average of 170w/sqm with 85% floor coverage).**

Product Code	Output (Watts)	Mat Length	Mat Width	Mat Coverage sqm
TPCM1000	1000w	10m	50cms	5.0 sqm
TPCM1200	1200w	12m	50cms	6.0 sqm
TPCM1400	1400w	14m	50cms	7.0 sqm
TPCM1600	1600w	16m	50cms	8.0 sqm
TPCM1800	1800w	18m	50cms	9.0 sqm
TPCM2000	2000w	20m	50cms	10.0 sqm
TPCM2200	2200w	10m+12m	50cms	11.0 sqm
TPCM2400	2400w	12m+12m	50cms	12.0 sqm
TPCM2600	2600w	14m+12m	50cms	13.0 sqm
TPCM2800	2800w	14m+14m	50cms	14.0 sqm
TPCM3000	3000w	16m+14m	50cms	15.0 sqm
TPCM3200	3200w	16m+16m	50cms	16.0 sqm
TPCM3400	3400w	18m+16m	50cms	17.0 sqm

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