Why electric under-floor heating?

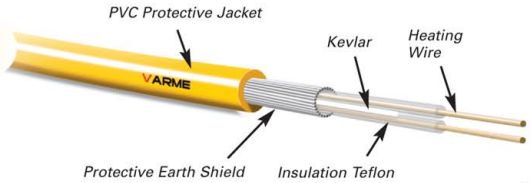
Electric under-floor heating is fast becoming a popular form of heating, especially where cold surfaces such as tiles, stone and marble are used. Under-floor heating was invented by the Romans some 2000 years ago, but today it is used in many countries around the globe.

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.

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 **Lifetime Guarantee**.

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

Cable Kits

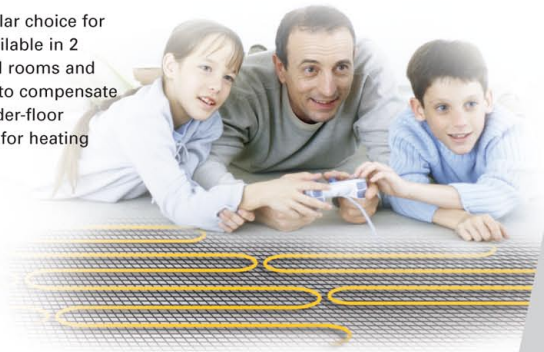
Every cable kit comes complete with:

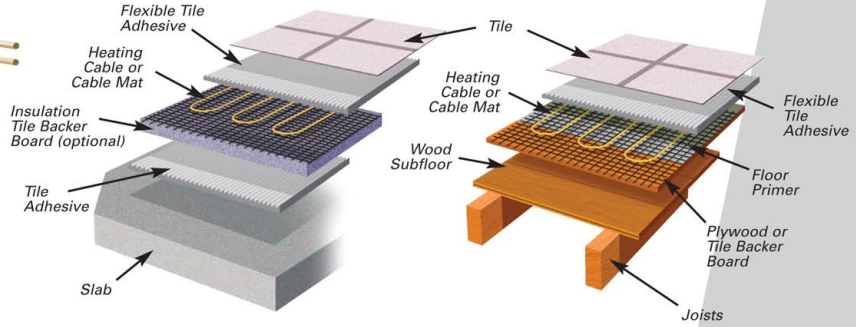
- 3mm twin-conductor heating cable on a drum
- Floor primer and roller
- Fixing tape
- 7 day programmable digital thermostat with built-in timer
- Lifetime warranty certificate
- Full, detailed installation instructions with helpline number

Cable kit

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.





Cable mat kit

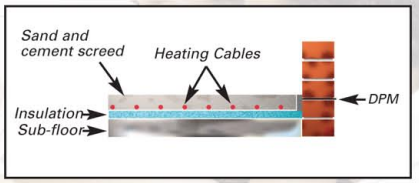
Every cable mat comes complete with:

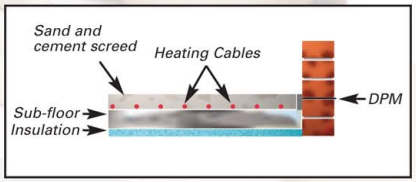
- 3mm twin-core heating cable on fibreglass mesh roll
- Floor primer and roller
- 7 day programmable digital thermostat with built-in timer
- Lifetime guarantee
- Full, detailed installation instructions with helpline number

In-Screed & In-Slab Heating System

Applications

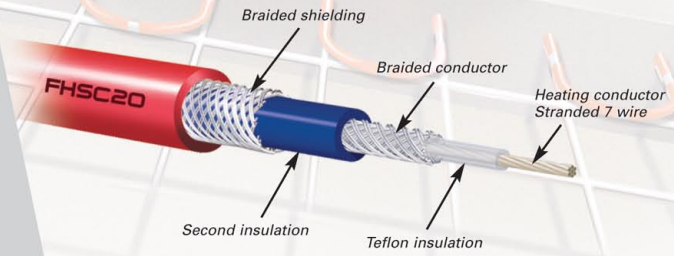
- Domestic and Commercial Floor Heating applications
- Direct acting and floor storage heating
- Industrial Freezer Room Floors
- Frost Protection, Internal and External, driveways, paths etc
- Snow and ice melting
- Concrete curing
- Low Temperature protection of Steel Constructions





Cable Construction

Heating cable comprises of a twin conductor resistance wire, coated with teflon primary insulation and tinned copper braid, plus 2 x PVC outer insulation layers.



Controls

FH-01 Supplied as Standard

Simply put, the FH-01 is the programmer of choice.

It has been specifically developed for the electric underfloor heating market and is shipped as standard with all Varme underfloor heating systems.

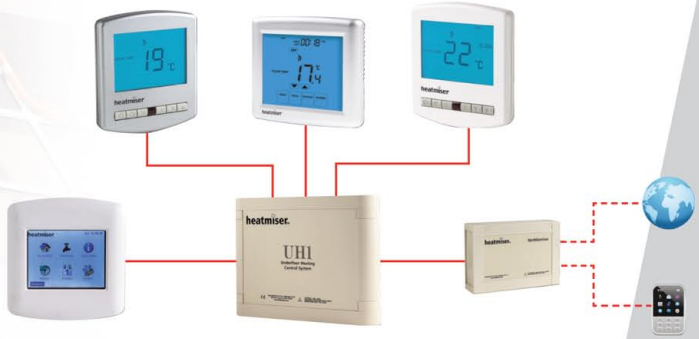
The FH-01 is simple to use, featuring a factory set programme so it is ready to run straight out of the box and the 7-day programme can be easily altered to suit your lifestyle.

- Elegant design
- Simple-to-use 7-day timer
- 24 hour/7 day timer
- Comfort and economy temperature settings
- Backlit display
- Vacation setting
- Optimum Start (energy saving)
- Manual over-ride
- Supplied with floor sensor
- Frost Protection Mode
- 16Amp Rating
- Factory Reset
- Keypad Lock
- Silver version available

FH-01 Silver Finish

Network / Multi-zone

Varme also supply network controls, which can link up to 32 zones and be controlled from a single location within the building, via the internet or mobile phone.



Therma-Coat

is a revolutionary insulating acrylic primer that has been specifically designed to help reduce carbon footprint. Therma-coat can be used on walls and ceilings prior to painting and is especially suited to underfloor heating.

Applied directly below the heating element, Therma-Coat can reduce energy loss to the sub-floor by up to 20%. Therma-coat can be used in conjunction with tile-backer boards or directly onto the sub floor, in situations where an increase in floor height is limited and will not allow for a conventional insulation material.

Applications

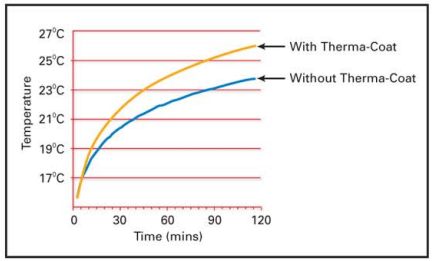
Direct to Floors

Ceilings

Application directly to Tile Backer Board

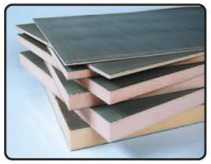
The results shown are from a test on an un-insulated concrete slab, the most challenging floor construction for an electric under-floor heating system.

With just a single application of Therma-Coat, more than a 2°C temperature difference was recorded.

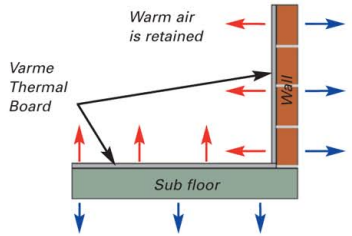


Tile Backer Board - Energy saving construction boards

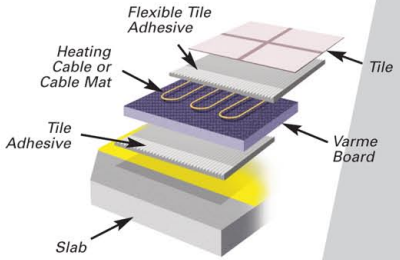
- 6-60mm Sheets
- Lightweight
- Energy Saving
- Walls / Floors
- Waterproof
- Underfloor Heating
- Bathrooms / Showers
- Extremely Versatile
- Tiling / Plastering
- Internal / External



Section through wall showing heatflow



Underfloor Heating



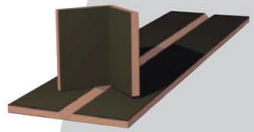
Board Sizes

Thickness (mm	Width (mm)	Length (mm)	Weight (kg/board)	U Value (W/m^{2}k)
6	600	1200	2.36	4.50
10	600	1200	2.37	2.70
12.5	600	1200	2.66	2.16
20	600	1200	2.59	1.35
30	600	1200	2.81	0.90
40	600	1200	3.03	0.67
50	600	1200	3.25	0.54
60	600	1200	6.94	0.45

Easy fit Boxed Corners

Varme Angled boards are ideal for boxing-in pipework. Specially designed to enable fast,clean boxing-in of exposed pipework, avoiding the need of a stud work frame. PCS Angled boards are lightweight, insulated and waterproof.

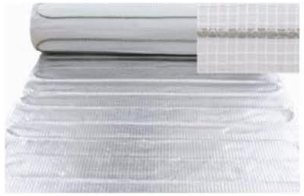
They are also suitable for shower areas and wet rooms.



Quickform Pipe Box

Heated Towel Rails

With over 40 styles and sizes in the range along with single electric or duel fuel supply, the Varme Heated towel rails add a unique feature to any bathroom.



Ali-Mat

Electric heating system for floating floors where total earth bonding and even heating is required. E.g bathrooms under laminate flooring.

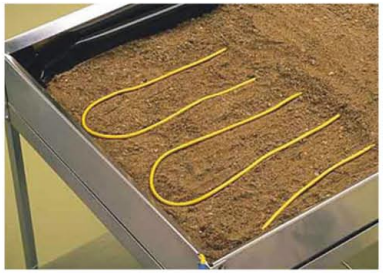
Trace Heating and Frost Protection

Wide range of self-regulating cables suitable for trace heating and frost protection of water and drainage pipework.

Varme - Additional Products and Services

Driveway and Path Heating

Combing our in-screed heating and advanced ice sensors, the Varme drive and path heating system ensures year round ice-free surfaces. Suitable for residential and commercial applications.



Soil Warming Cables

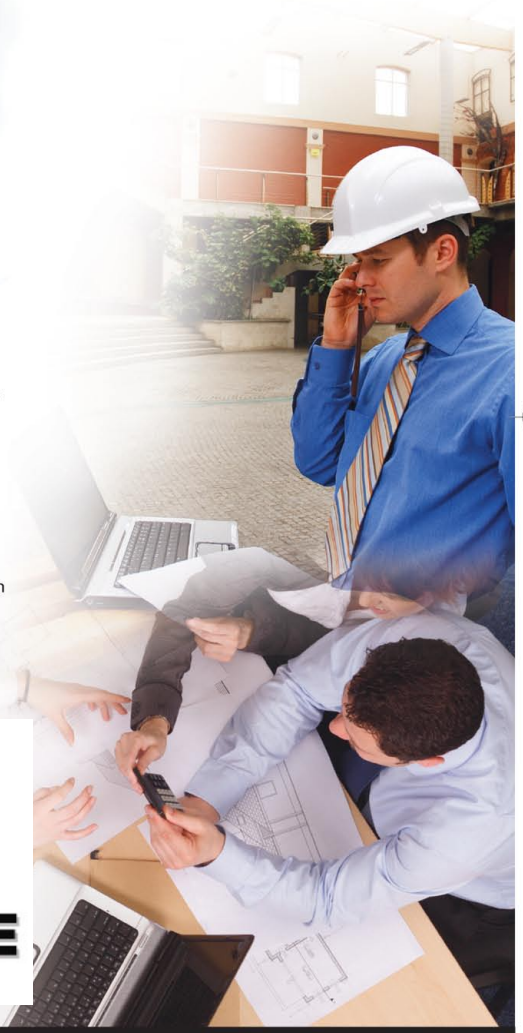
These short length cales are based on our underfloor heating cables with a fitted plug. Perfect of seed propagators and soil beds.

Project Services

Complete heating solutions for residential, commercial and industrial applications. From design concept, through supply, installation, commissioning, training and after sales service. Our team of highly experienced engineers and installers offer an unrivalled level of service and support

VARME

Floor Heating Systems



Wetroom Systems

What is a Wet Room?

A Wet Room is a shower area that is open to the rest of the room, without steps or any breaks in the floor and wall finishes, providing a clean and luxurious living space.

Why install a Wet Room?

Wet rooms have an immediate aesthetic advantage over conventional shower rooms due to the floor and wall finishes being continuous throughout.

A Wet Room is easier to maintain, and can also add significant value to a property.

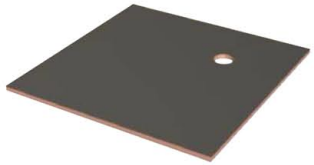
Wet Room systems have been used in continental Europe for decades and are becoming increasingly popular in the UK where modern lifestyles and individual taste, demand quality.

Varme Wet Rooms can also feature underfloor "heating" throughout, not just floor warming, including the actual shower area, which provides further luxury.

Varme Offset Shower Tray (pre-grout). Tiles cut to follow pre-made fall.

Design Features

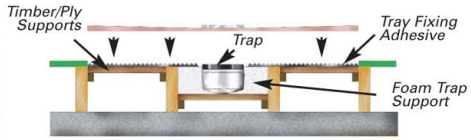
- Ready to receive a tiled finish
- Can be cut to fit on site
- Use to create wet rooms
- Ready made falls
- Lightweight
- Use with timber or concrete floors



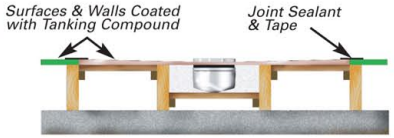
Varme Shower Tray with Offset Drain

Varme Shower Tray with Centre Drain

Step 1



Step 2



Installation Kit with Drain and Trap

Installation

Step 1. Remove an area of flooring the same size as the tray. Fit timber/ply supports to provide a flush surface to fix to. Trim and fit the foam drain-support and fix the tray in place with the fixing adhesive.

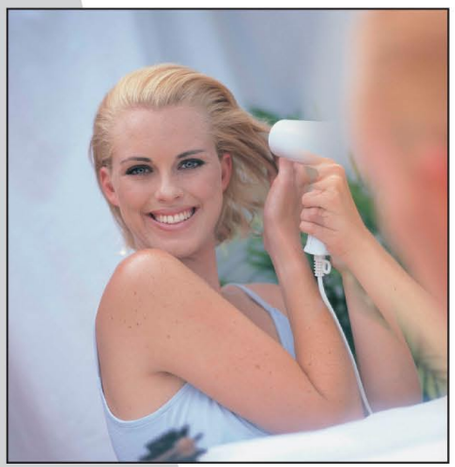
Step 2. Seal all joins with the waterproof sealant. Tank all joints with the waterproofing compound and alkali resistant tape. Finally tank all surfaces with the waterproofing compound.

Mirror Demisters

With a simple-to-install mirror demister you no longer have to wait for the mist to clear before shaving, drying your hair, or putting on make-up.

The demister is very simple to install. The self-adhesive backing is simply pressed onto the back of the glass in the centre of the mirror. Your electrician then connects the wires to either a separate switch or your lighting circuit.

- Simple to fit to any mirror
- Economical to run – just 2 - 3 pence per week
- Completely safe
- Maintenance free
- 5-year warranty
- Manufactured in the UK



Running-costs are negligible - based on one hour usage per day, an average demister will cost just 2 – 3 pence per week to run – a small price to pay for permanent mist-free mirrors!

This simple, inexpensive product has been used by many of the world's leading hotels for years. They are now commercially available at competitive prices, and in 6 sizes, to add a touch of luxury to your bathroom.

Can be used behind all mirrors, whether fixed to the walls with screws, bonded or hung. Can also be fixed to mirrored doors. Multiple heaters can be used to achieve maximum coverage if desired.

Depron

What is Depron®

Depron® is an extremely thin insulation sheet manufactured from fully recycled material, free from Freon and Halogen. The sheet is produced from foamed polystyrene, a material that does not age. The cell structure in the sheet is built up of fine, closed cells that give it its excellent physical and mechanical characteristics.

- Thermal Conductivity: 0.035 W/mK
- Impact Sound Insulation: +16db*
- Density: 33-40kg/m²
- Water Absorption: <0.1% vol
- Melting Temperature: >160°C

*in combination with wood flooring

Applications

Mainly used as an insulation material, Depron can be used in floors, ceilings and walls to improve thermal efficiency. It's primary use is as an underlay for the carbon heating system for under engineered wood, carpet and vinyl flooring.

Size	Colour	Sheet Size	Box Qty
2mm	White	1250x800mm	60
3mm	White	1000x700mm	40
6mm	White	1000x700mm	20
3mm	Grey	1250x800mm	40
6mm	Grey	1250x800mm	20

Depron is also used for modelling, to construct model aircraft as well as architectural models because it is very strong, easy to work and durable.

Finishes

Depron is available in two colours, White and Grey.

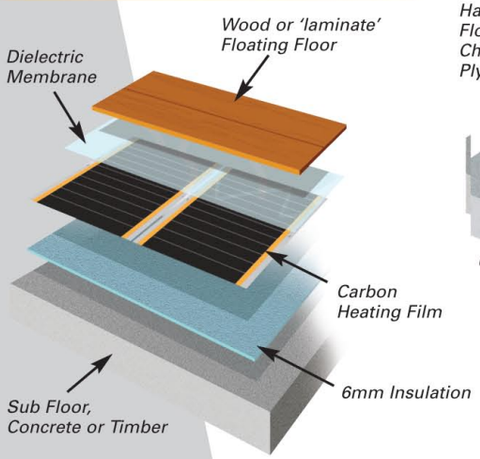
Revolutionary electric underfloor heating system designed for wood, laminate, carpet & vinyl

Wood or laminate floors are now extremely popular, but they can be cold and uninviting, especially in the winter months. This no longer has to be the case, as our revolutionary carbon heating film can be installed directly below wood or laminate floors, providing a fast direct-acting heating system, which can replace radiators and other conventional forms of heating.

The main advantages of our systems are:

- Simple-to-install
- Fully-controllable even heat
- Completely invisible
- Maintenance-free
- Minimal effect on floor height (6mm)
- Economical to run
- Dry installation (no screed needed)
- 10-year guarantee
- Class II Electrical Product

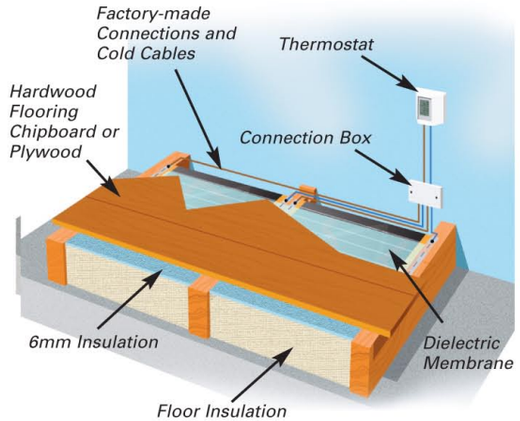
Typical installation under laminate or 'floating' wood floor



The carbon heating system is not a new invention it has been used in Sweden and other Scandinavian countries for many years and is fast becoming a popular way to heat homes in the UK.

The ability of the systems to be used as the primary or sole source of heating will depend upon the available floor area and the amount of heat loss from the room – in 99% of cases, when fitted over the majority of the floor area in an internal room, it will provide a year round heating system. The exceptions to this is conservatories with a high heat loss and rooms where only a small percentage of the floor area is available to heat, for example a small galley kitchen. In these cases the heating film may need to be supplemented with another heating source during periods of extremely cold weather.

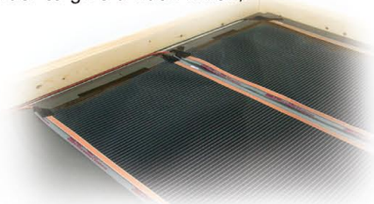
Installation on joists or battens



Your simple steps to warmth

Cover the existing timber or concrete floor with 6mm insulating underlay (A double layer is recommended on floors with no insulation).

Layout the Carbon Heating mats over the insulation board, running the connecting cables along the perimeter of the room (the cables are taped to the existing sub-floor in order to give a flush finish).



The cables are then connected together in a small junction box.

The programmable thermostat is then connected to the heating system and the mains by your electrician.

Finally you are now ready to lay your Dielectric Membrane and wood or laminate floor finish.

Installation under Carpet & Vinyl