



## Electric Underfloor Heating

**EVERYTHING**

**YOU NEED**

**TO KNOW**

**Pocket  
Guide**

# Overview

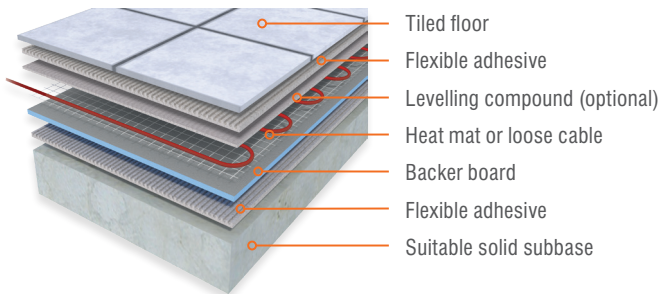
## Electric underfloor heating

### (AKA dry systems)

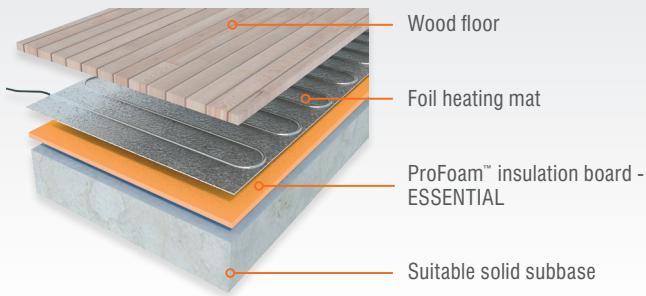
There are 2 main types of electric underfloor heating systems; loose cables and mats. Loose cables are flexible enough to fit into small or awkward spaces. Heating mats are quicker to install, as they are simply rolled out, making them ideal for covering large areas.

Both heating mats and cables are connected to a power supply, via an RCD, and are wired to a thermostat to control the temperature of the floor.

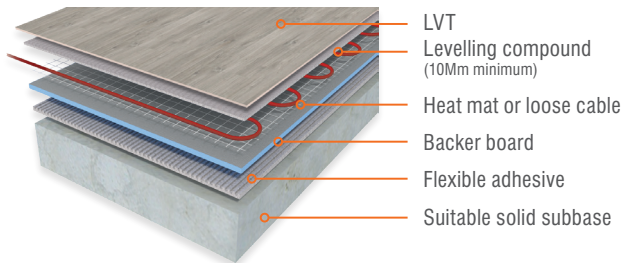
## Undertile



## Underwood



## Luxury Vinyl Tiles



# Overview

## Electric UFH

- Easy to install
- Cheaper to install in smaller areas i.e. kitchens/bathrooms
- Can be retro fitted into existing rooms with minimum disruption
- Will only increase floor height from as little as 2mm
- Wattage output option for different scenarios
- 80-90% coverage for a primary heat source

MINIMAL  
DISRUPTION & EASY  
TO INSTALL



Please ensure that your room has enough free floor space to heat the room. We recommend that you have at least 2m<sup>2</sup> of free floor space for your project. Remember that you can't use underfloor heating underneath permanent fixtures such as bath, shower cubicle, toilet, vanity units, kitchen units etc.

Don't forget that single glazed windows, solid walls and uninsulated floors might have an effect on the overall performance of your underfloor heating.

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## Calculations

Formulas have been provided where calculations are needed to work out quantities of each product.

Please note that it is advisable to check your calculations before beginning a job.

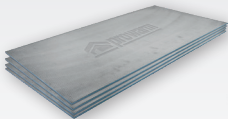
## Heating Mats Under Tile / Stone / LVT



Scan QR code for installation video

### For regular shaped areas

You will need the following:



**Tile backer boards (Recommended)** + **150W Heating mat** + **Kit accessory pack**

Up to 12m<sup>2</sup>

For insulation & improved efficiency



## What size Heating Kit do I need?

Room size (length x width) minus fitted furniture (total area of units in diagram)

$$3.5\text{m}^2 \times 3.5\text{m}^2 = 12.25\text{m}^2 \text{ (Room size)}$$

$$1\text{m}^2 \times 3.5\text{m}^2 = 3.5\text{m}^2 \text{ (Fitted furniture)}$$

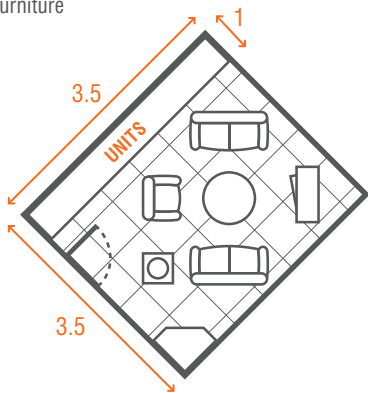
$$12.25\text{m}^2 - 3.5\text{m}^2 = 8.75\text{m}^2$$

Minus 10% to get your heated area

$$8.75\text{m}^2 \times 0.9 = 7.875\text{m}^2$$

ALWAYS round down to the nearest heating cable/mat size

$$7.875\text{m}^2 = 7\text{m}^2 \text{ heating cable/mat}$$



## Loose Cable Under Tile / Stone / LVT



Scan QR code for installation video

### For awkward shaped areas

You will need the following:



Tile backer boards (Recommended) + Loose cable + Kit accessory pack

Up to 12m<sup>2</sup>

For insulation & improved efficiency



## How many Tile Backer Boards?

ProWarm™ backer boards are 1200mm x 600mm and cover 0.72m<sup>2</sup>

Rooms total area divided by 0.72 = Number of boards required

For Example:

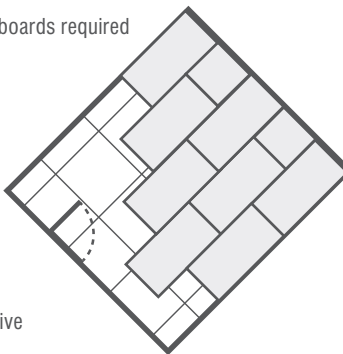
$$12.25\text{m}^2 / 0.72 = 17 \text{ (17 boards)}$$

Then add on 5% for wastage

$$17 \times 1.05 = 17.85 \text{ (18 boards)}$$

These boards are fixed to timber using screws, washers and flexible tile adhesive

They are fixed to screed using flexible tile adhesive



## Under Laminate or Engineered Wood

You will need the following:

Underwood foil heating mat

**MAT SIZES:**  
500mm wide  
1m<sup>2</sup> lengths  
up to 12m<sup>2</sup>



+ Kit accessory pack



### What size Heating Kit do I need?

Room size (length x width) minus fitted furniture (total area of units in diagram)

$$3.5\text{m}^2 \times 3.5\text{m}^2 = 12.25\text{m}^2 \text{ (Room size)}$$

$$1\text{m}^2 \times 3.5\text{m}^2 = 3.5\text{m}^2 \text{ (Fitted furniture)}$$

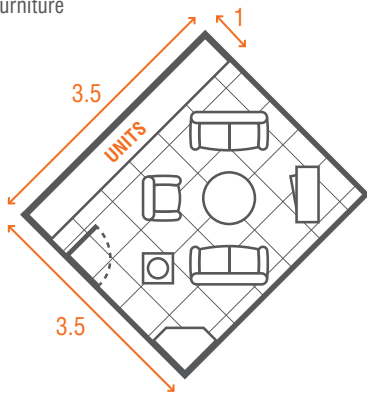
$$12.25\text{m}^2 - 3.5\text{m}^2 = 8.75\text{m}^2$$

Minus 10% to get your heated area

$$8.75\text{m}^2 \times 0.9 = 7.875\text{m}^2$$

ALWAYS round down to the nearest heating cable/mat size

$$7.875\text{m}^2 = 7\text{m}^2 \text{ heating cable/mat}$$







Scan QR code for installation video

## + ProWarm™ ProFoam™ insulation boards (Must be used under a wood system - Not to be used under tiles)

You will need enough of these to cover your entire room size

Sold in packs of 10m<sup>2</sup>



ONLY  
FOR UNDER  
WOOD SYSTEMS



## How many ProFoam™ Insulation Boards?

ProWarm™ ProFoam™ boards are 1200mm x 600mm and each pack contains 14 boards

Rooms total area divided by 10 = Number of packs required

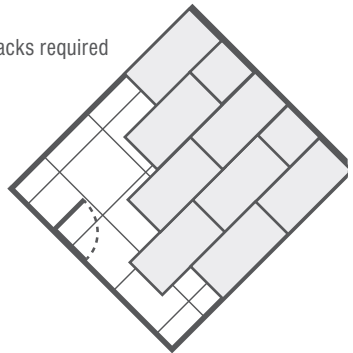
For Example:

$$25\text{m}^2 / 10 = 2.5 \text{ (3 packs)}$$

Then add on 5% for wastage

$$2.5 \times 1.05 = 2.625 \text{ (3 packs)}$$

These boards are loose laid with taped joints



# Loose Cable Coverage Guide



ProWarm™ Electric Underfloor Heating cable kits provide a reliable and effective underfloor heating system that can work with tiles and many other floor coverings (installation methods differ, please call us for advice).



Damage your underfloor heating cable or mat during the installation process and ProWarm™ will replace it free of charge.\* Giving you total peace of mind!

\*There are some conditions that must be met in order to validate the Guarantee



Wattage 150w per m<sup>2</sup>

To assist in planning your project we have provided a Cable Coverage Guide.

Based on your planned cable spacing get all the technical data from the table below.

Cable Length	Area Covered
35m	2.3m <sup>2</sup>
64m	4.2m <sup>2</sup>
92m	6m <sup>2</sup>
125m	8.3m <sup>2</sup>
160m	10.6m <sup>2</sup>

Our technical staff are fully qualified electricians and plumbers and can offer expert advice on any additional issues you may have.



Technical Support  
Call direct on: **01268 567019**

# Product directory

	Product Description	Code
	ProWarm™ 150w mat only / 2.0m2	166937
	ProWarm™ 150w mat only / 4.0m2	166938
	ProWarm™ 150w mat only / 6.0m2	166939
	ProWarm™ 150w mat only / 8.0m2	166940
	ProWarm™ 150w mat only / 10.0m2	166941
	ProWarm™ Loose cable - 35m - Drum only	166942
	ProWarm™ Loose cable - 64m - Drum only	166943
	ProWarm™ Loose cable - 92m - Drum only	166944
	ProWarm™ Loose cable - 125m - Drum only	166945
	ProWarm™ Loose cable - 160m - Drum only	166946
	ProWarm™ Underwood Heating mat only 2.0 m2	166947
	ProWarm™ Underwood Heating mat only 4.0 m2	166948
	ProWarm™ Underwood Heating mat only 6.0 m2	166949
	ProWarm™ Underwood Heating mat only 8.0 m2	166950
	ProWarm™ Touchscreen Thermostat - Silver	166951
	ProWarm™ Touchscreen Thermostat - White	166952
	ProWarm™ Digital Thermostat - Standard White	166953
	ProWarm™ 6mm Tile Backer Insulation Boards	166935
	ProWarm™ ProFoam™ Underlay Insulation Board 10m2 Pack	166936
	ProWarm™ Kit Accessories for Undertile / Loose Cable - Up to 12m2	166954
	ProWarm™ Kit Accessories for Underwood mat - Up to 12m2	166955

Size	Features & benefits	Suitability
2m2	Our high quality ETFE advanced insulation system is made with the highest quality Fluoropolymer's and does not contain any PVC coatings whatsoever.	Suitable for use with tiles, stone & LVT (when used with levelling compound)
4m2		
6m2		
8m2		
10m2		
2.3m2	ProWarm™ Loose Cable systems are perfect for small bathrooms, ensuites and awkward shape areas. *65mm Spacing	Suitable for use with tiles, stone & LVT (when used with levelling compound)
4.2m2		
6m2		
8.3m2		
10.6m2		
2m2	The advantage of our ultra-thin cable means that laminate/engineered wood can be installed directly on top	Suitable for use with laminate and engineered wood
4m2		
6m2		
8m2		
125x95x17 125x95x17	Large LCD touch display, 7 day programmable, 25 year Lifetime Warranty	Suitable for use with all ProWarm™ electric heating systems
86x86x13	Large LCD display, 7 day programmable, 25 year Lifetime Warranty	Suitable for use with all ProWarm™ electric heating systems
1200x600x6	Outstanding Thermal Insulation, High Compressive Strength, Impact Noise Reduction	Suitable for wet areas and under tiles
1200x600x6 (board) 1200x600x84 (Pack)	Outstanding Thermal Insulation, High Compressive Strength, Impact Noise Reduction	Suitable for use with laminate and engineered wood
12m2	ProWarm™ Accessories Kits are vital for the installation of the ProWarm™ heating systems and come equipped with all components necessary	Required for installation of undertile systems
12m2	ProWarm™ Underwood Accessories Kit is vital for the installation of the ProWarm™ underwood heating and come equipped with all components necessary	Required for installation of underwood systems

## Undertile FAQ's

### Q HOW WIDE ARE THE MATS?

A The mats are 500mm wide and come in different lengths to suit the size of the room. For instance, if you require a 4m<sup>2</sup> mat kit, it would come on a roll 8m long by 500mm wide.

This covers 4m<sup>2</sup>. Simply roll out the mat, cut the mesh when you reach the end of the room, then flip the mat over and come back the other way.

### Q HOW THICK IS THE CABLE?

A Our heating cables are 2mm thick. You need to allow for the thickness of your tile adhesive (5mm), your tile and any insulation board used when informing the customer how much their floor will be raised by, after the installation.

### Q HOW MANY MATS / CABLES CAN I WIRE INTO A THERMOSTAT?

A Our range of thermostats will switch 16amps so any combination of mats or cables can be connected as long as the total load does not exceed this.

When connecting more than two heating mats/cables into 1 thermostat, it may be a little tight to get all the cables into the thermostat terminals – in this case you can use a junction box to connect them, which can be positioned on the wall behind a blanking plate or similar.

### Q HOW HOT DOES THE FLOOR GET?

A The floor can reach a maximum temperature of around 28°C, obviously this is limited by the thermostat.

### Q HOW MUCH DOES IT COST TO RUN?

A Running costs vary depending on the electricity supplier base price, the level of insulation and a few other factors. A basic rule of thumb is to allow 2.5p per m<sup>2</sup> per hour.

## Underwood FAQ's

### Q ARE ALL WOOD AND LAMINATE FLOORS SUITABLE TO USE WITH OUR UNDERFLOOR HEATING SYSTEM?

A These days most flooring manufacturers approve their flooring products to be used with underfloor heating systems, but we always recommend you check with your supplier to ensure your wood or laminate floor is suitable to use with our underfloor heating systems. 18mm is the maximum thickness we recommend to use to ensure you obtain the most from the system.

### Q CAN I USE UNDERLAY WITH MY UNDERWOOD SYSTEM?

A At no point should an underlay be installed on top of the heating mat prior to laying the floor. The insulation boards followed by the heating mat are the only items that should be installed.

### Q IS THE UNDERWOOD HEATING SUITABLE FOR WET AREAS?

A Yes - our system is suitable for wet areas and is fully 17th edition compliant, providing you follow the installation instructions.

### Q CAN I PUT FURNITURE ON TOP?

A Yes most free standing furniture is fine to use. Flat bottomed furniture **MUST NOT BE** placed over areas where the heating mat/cable is installed as this can restrict airflow to the floor, causing thermal blocking. This includes rugs, bean bags, or any item which has a tog value greater than 2.5.

### Q WHAT IS THE TOTAL THICKNESS IT WILL RAISE MY FLOOR?

A If you use our 6mm insulation boards the total thickness will be 8mm as the heating mat is only 2mm thick.

### Q CAN THE MATS BE CUT?

A The mats can be cut and turned to suit any given floor space, this makes our system much more versatile than the old fashioned carbon film systems. (PLEASE NOTE DO NOT CUT THE CABLES).

You may also need:

What?	Why?
Tools - tape measure, scissors, hammer & chisel	To use during installation
Digital multimeter	To test the system before, during and after installation
Latex levelling compound	To level the floor if your existing subfloor is uneven and to encapsulate the heating element if used in conjunction with LVT
Waterproof tape	To seal the joints between backer boards if installing wood or laminate in a wet area such as a bathroom
Flexible tile adhesive	To fit the backer boards and tiles (if using)