

Selecting The Correct Mat Size

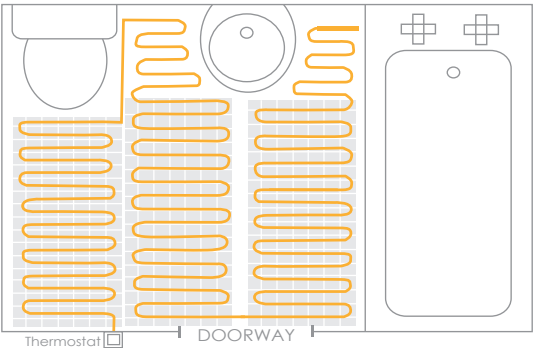
Note: Before purchasing your **ECOFLOOR** heating system please read the following important information to ensure that you order the correct items.

It is important that the correct size of **ECOFLOOR** matting is ordered as the cable mat cannot be shortened.

Accurately measure the free floor area to be heated, in square metres, deducting any items of fixed furniture such as baths, WCs, showers, kitchen units etc. To allow for perimeter clearance, reduce the free floor area by 15% for areas up to 5m² and 10% for areas greater than 5m². Use this calculated area (m²) to select the nearest cable mat size **DOWN** using the product selection chart. **NEVER** select the nearest mat size up.

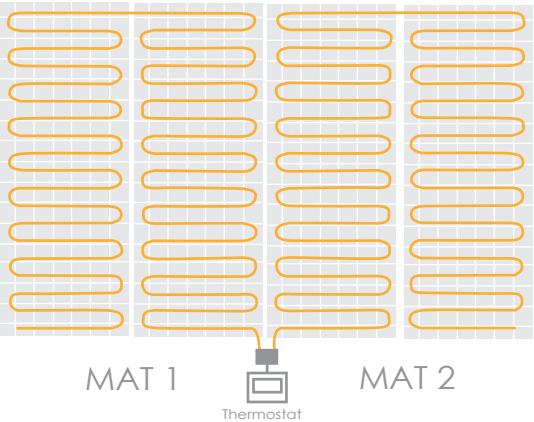
If the calculated "Effective" floor area is larger than the mat sizes offered, you can use a combination of mats to achieve the coverage. Additional mats should be wired in parallel using a suitable junction box.

Example Mat Layout



For hard to reach areas the cable can be removed from the matting and attached to the floor with adhesive tape.

Example Of Mats Wired In Parallel



Product Codes

150W/m² Cable Mat					
Area to be heated (m²)	Mat Reference	Output (W)	Width (m)	Length (m)	Price ex. vat (£)
0.5m²	LDTS150-0.5	75	0.5	1.0	
1.0m²	LDTS150-1.0	150	0.5	2.0	
1.5m²	LDTS150-1.5	225	0.5	3.0	
2.0m²	LDTS150-2.0	300	0.5	4.0	
2.5m²	LDTS150-2.5	375	0.5	5.0	
3.0m²	LDTS150-3.0	450	0.5	6.0	
3.5m²	LDTS150-3.5	525	0.5	7.0	
4.0m²	LDTS150-4.0	600	0.5	8.0	
5.0m²	LDTS150-5.0	750	0.5	10.0	
6.0m²	LDTS150-6.0	900	0.5	12.0	
7.0m²	LDTS150-7.0	1050	0.5	14.0	
8.0m²	LDTS150-8.0	1200	0.5	16.0	
9.0m²	LDTS150-9.0	1350	0.5	18.0	
10.0m²	LDTS150-10.0	1500	0.5	20.0	
11.0m²	LDTS150-11.0	1650	0.5	22.0	
12.0m²	LDTS150-12.0	1800	0.5	24.0	

200W/m² Cable Mat					
Area to be heated (m²)	Mat Reference	Output (W)	Width (m)	Length (m)	Price ex. vat (£)
1.0m²	LDTS200-1.0	200	0.5	2.0	
2.0m²	LDTS200-2.0	400	0.5	4.0	
3.0m²	LDTS200-3.0	600	0.5	6.0	
4.0m²	LDTS200-4.0	800	0.5	8.0	
5.0m²	LDTS200-5.0	1000	0.5	10.0	
6.0m²	LDTS200-6.0	1200	0.5	12.0	
7.0m²	LDTS200-7.0	1400	0.5	14.0	
8.0m²	LDTS200-8.0	1600	0.5	16.0	
9.0m²	LDTS200-9.0	1800	0.5	18.0	
10.0m²	LDTS200-10.0	2000	0.5	20.0	

Accessories

Product Code	Description	Price ex. vat (£)
TB06	6mm ECOMAX tile backer board (600mm x1250mm)	
TB10	10mm ECOMAX tile backer board (600mm x1250mm)	
TH132AF	Digital programmable thermostat (Air & Floor)	
TH132F	Digital programmable thermostat (Floor only)	
EB100	Manual analogue thermostat	



Authorised Distributor:

Version 1.2 - February 2010 - Priced

ECOFLOOR is part of the Flexel Underfloor Heating Systems product range by Flexel International Ltd, Queensway Ind Est, Glenrothes, Fife, KY7 5QF, Scotland. Also available: **ECOFLEX** & **ECOFILM^{SET}**.

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Electrical Requirements

- ECOFLOOR** underfloor heating mats are very simple to install by following the comprehensive instruction booklet included with each cable mat. The final electrical connection should be made by a qualified electrician in accordance with the current wiring regulations.
- All installations require a 30mA RCD (residual current device) for safe operation.
- The thermostat has a max load of 15Amp / 3450W at 230Vac.
- Rooms requiring more than two mats require connection to the thermostat via a standard junction box.



APPROVED
to comply
with the
17th Edition
Wiring
Regulations



Electric underfloor heating
for tile & stone floors

Undertile heating for kitchens, bathrooms & conservatories

Easy to install & control
ECOFLOOR underfloor heating mats are a combination of self-adhesive mesh with a heating cable pre-attached. The mat design enables fast installation & an even heat distribution across the whole floor. ECOFLOOR underfloor heating mats are 500mm wide and available in a range of standard lengths. ECOFLOOR underfloor heating mats have a twin conductor cable simplifying installation with a single 3m “cold tail” connection. The finished installation is controlled using an easy to use, programmable thermostat.

ECOFLOOR underfloor heating mats are available in 150W/m² or 200W/m² heat outputs. The 150W/m² mat is suitable for internal applications including kitchens, bathrooms & living areas. The 200W/m² mat is recommended for conservatories or areas prone to high heat losses.

Install Almost Anywhere
ECOFLOOR can be installed on top of either suspended timber floors or solid concrete floors enabling installation in all room types. ECOFLOOR can also be installed under many floor coverings including:

- Ceramic
- Natural Stone
- Slate
- Quarystone
- Porcelain
- Marble
- Limestone
- Terracotta

Maintenance free, safe, overall warmth
Totally safe, under tile & stone floors, the ECOFLOOR radiated heat provides overall warmth and comfort without the usual dust carrying convective air currents of conventional radiator systems. The large heated area provides a balanced temperature distribution. Once it has been installed it is completely maintenance free.

Safety
ECOFLOOR is approved to the relevant International safety approval EN60335-2-96 as required by the 17th Edition Wiring Regulations (BS7671:2008).

10 Year Guarantee
ECOFLOOR comes with a 10 year guarantee against manufacturing defects.

A Primary Heat Source
Heat loss calculations should be calculated by your architect or heating engineer. As a guide however, if your room complies with the insulation standards in current building regulations ECOFLOOR can be used as a primary heating source. Rooms with potentially high heat losses like conservatories may need a supplementary heat source in very cold days.

Heat-Up Times
The speed of response of your ECOFLOOR undertile heating system depends on several factors including sub-floor construction and tile material & thickness. The table below provides indications of heat-up times for various sub-floor constructions.

Sub-floor Construction	Heat-Up Time (hrs)
ECOMAX insulated tile backer board (10mm) on timber	0.5
Concrete Screed Floor (Insulated under screed)	2-5
Un-insulated Concrete	3-8+
Concrete with ECOMAX insulated tile backer board (10mm)	1

How Effective Is Under Tile Heating?
ECOFLOOR is a highly effective direct acting radiant heating system. It can provide primary heating or just be used to warm a floor and provide background heat.

Running Costs
The running costs associated with ECOFLOOR can be related directly to the floor heat-up times. A high quality thermal barrier such as ECOMAX insulated tile backer board will significantly slow the process of heat losses into the sub-floor, improve performance, and reduce the initial warm-up time therefore reducing the energy consumption.

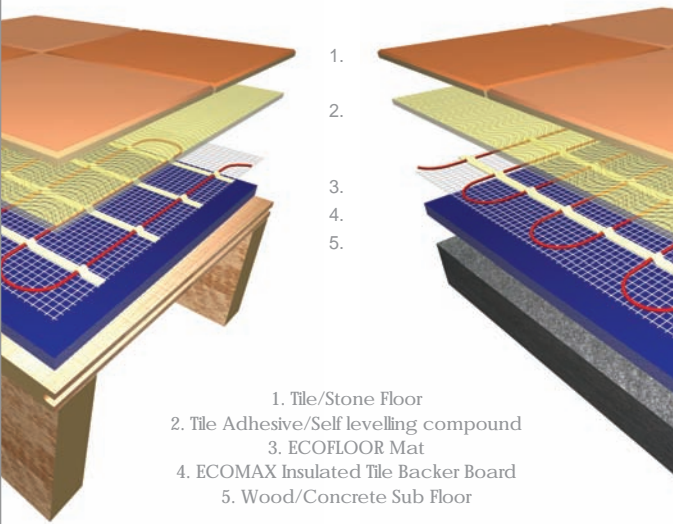
A 2.5m² floor in a bathroom fitted with ECOMAX insulated tile backer board on top of an insulated concrete sub-floor would cost approximately 10p* per day to run. This is based on the heating system being on twice a day for two hours each time. This assumes a 50% duty cycle once the floor had reached temperature and assumes a cost of 10p per KwH.

Simple Control
ECOFLOOR is controlled by a simple to operate timer-thermostat that offers the user maximum flexibility and control.

Air and floor temperature sensors regulate heat output to maximise comfort. The unit can offer full 24 hour control, 7 days a week with simple manual over ride functions.



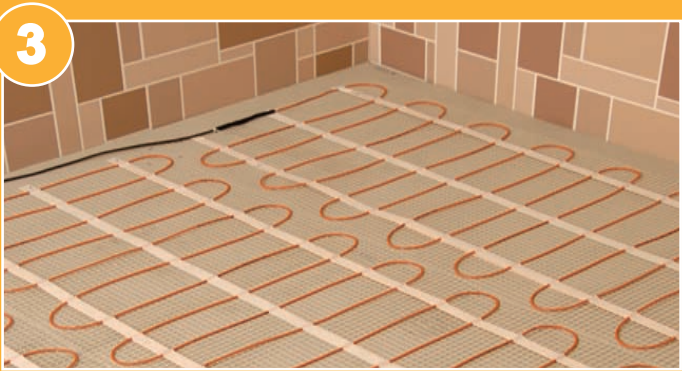
Floor Construction
Suspended Floors - When fitting ECOFLOOR to a timber sub-floor it is essential that you take the standard precautions to stabilise the floor and prevent floor movement. You must always over-board the timber floorboards or chipboard with a surface suitable for tiling. Flexel recommend ECOMAX Insulated Tile Backer Board or primed 18mm WBP plywood.
Solid Floors - For best performance it is recommended before fitting ECOFLOOR you fit a layer of ECOMAX insulated tile backer board. This will minimise heat losses & ensure quicker heat-up times for the floor. ECOFLOOR can be laid directly onto an un-insulated floor, however this will increase heat-up times & running costs.



1 Fit the ECOMAX Insulated Tile Backer Board to the floor securely following the manufacturers instructions.



2 Roll the mat onto the floor. When you reach the end of a row, cut the backing mesh and turn the mat through 180° and position the next strip adjacent to the first.



3 When satisfied with the proposed layout fix the matting to the floor using the integral self-adhesive fixing strips.



4 Cover with a layer of self-leveling compound/flexible tile adhesive and allow to dry before tiling. Alternatively lay the adhesive and tiles in one step ensuring the cable is totally encapsulated to prevent air gaps.