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/m^2 or heat outputs. The 150W/m^2 mat is suitable for internal applications including kitchens, bathrooms & living areas.

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
- Quarrystone
- 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.

Lifetime Warranty

ECOFLOOR comes with a lifetime warranty.

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)
JACKOBOARD insulated tile backer board (10mm) on timber	0.5
Concrete Screed Floor (Insulated under screed)	2-5
Un-insulated Concrete	3-8+
Concrete with **JACKBOARD** 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 **JACKOBOARD** insulated tile backer board will significantly slow the process of heat losses into the subfloor, improve performance and reduce the initial warmup time therefore reducing the energy consumption.

Simple Control

ECOFLOOR is controlled by a simple to operate timer thermostat that offers the user maximum flexibility and control. Options range from an innovative programmable thermostat that offers the user sophisticated, energy monitoring, control but with a simple touch screen interface to a manual thermostat with temperature dial and on/off switch.

Black Wifi Thermostat

Wi-Fi Enabled Controller

Touchscreen Delux Black

Touch Screen Controller

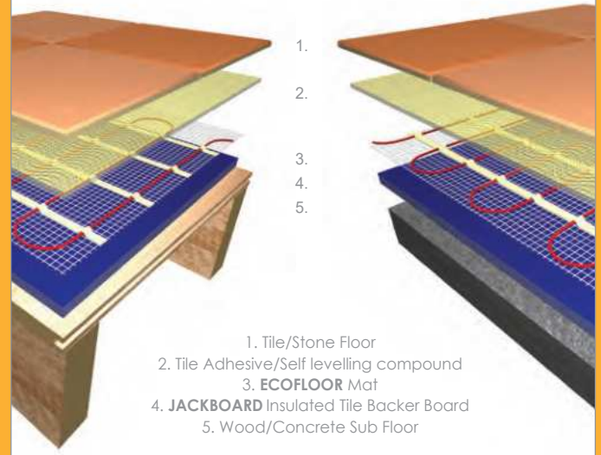
Digital Controller

Manual Controller

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 **JACKBOARD** Insulated Tile Backer Board.

Solid Floors - For best performance it is recommended before fitting **ECOFLOOR** you fit a layer of **JACKBOARD** 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. Tile/Stone Floor
2. Tile Adhesive/Self levelling compound
3. **ECOFLOOR** Mat
4. **JACKBOARD** Insulated Tile Backer Board
5. Wood/Concrete Sub Floor

1 Fit the **JACKOBOARD** 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.

Selecting The Correct Mat Size

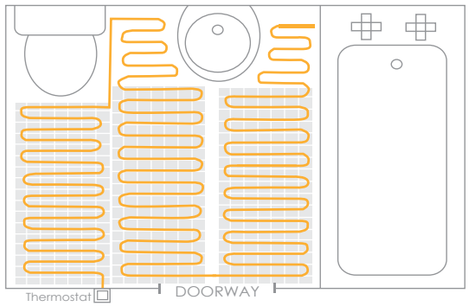
Note: Before purchasing your **ECOFLOOR** heating system please read the following important information to ensure that you order the correct items.

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.

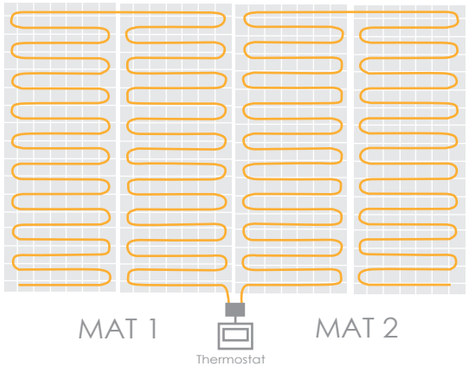
If the calculated "Effective" floor area is larger than the mat sizes offered, you can use a combination of mats to achieve the coverage. Additional mats should be wired in parallel using a suitable junction box.

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 References	Output (W)	Width (m)	Length (m)
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
4.5m²	LDTS150-4.5	675	0.5	9.0
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
14.0m²	LDTS150-14.0	2100	0.5	28.0
16.0m²	LDTS150-16.0	2400	0.5	32.0

200W/m² Cable Mat *Special Order Only*

Area to be heated (m²)	Mat References	Output (W)	Width (m)	Length (m)
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
4508150	6mm Insulated Jacko Board (600mm x 1200mm)
4508151	10mm Insulated Jacko Board (600mm x 1200mm)
TM13	Manual Thermostat (16A) White
TM14	Touch Screen Thermostat (16A) White
TM15	Digital Thermostat (16A) White

FLEXEL
UNDERFLOOR HEATING SYSTEMS

JACKOBOARD®

Authorised Distributor:

Version 2 July 2107

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].

DISTRIBUTED BY

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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 maximum load of the thermostat being used should not be exceeded.
- Rooms requiring more than two mats require connection to the thermostat via a standard junction box.

ECOFLOOR

undertile heating mat

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