

## PRODUCTS

Flexel International Ltd produce the following products in the *Flexel Underfloor Heating Systems* range:



*Ecoflex* cable kits are ideal for smaller installations or in rooms with an irregular layout. The flexibility of the system makes it possible to heat the maximum floor area.

*Ecofloor* mats are ideal for both small, and larger installations where unobscured floor space enable the simple un-rolling of the mat. The self adhesive design and pre-spaced heating cable ensure speed and ease of installation.



*Ecofilm* and *EcofilmSet* is the ideal way to heat solid timber, engineered boards and laminate floors. The ultra-thin, but tough, carbon based heating film can be installed directly under wood or laminate floors resulting in minimal floor height increase therefore minimising installation time and costs.

## SAFETY

*Ecofloor* conforms with the relevant international safety approvals:

IEC 60800 IEC 811 FN 60335

## CONTACT

If you wish to receive more information about *Ecofloor* or any of our products please contact:



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## NOTE

This brochure is designed to assist you with your choice of *Flexel Underfloor Heating Systems* products and is not intended as an installation guide. For safety, products should only be installed by a competent person, in accordance with current regulations and the manufacturers instructions. If you require further advice concerning the installation of our products please contact *Flexel International Ltd* or consult your distributor / installer.

**WE RESERVE THE RIGHT TO MODIFY OR CHANGE ANY DETAILS CONTAINED IN THIS BROCHURE**



AFFORDABLE LUXURY, ELECTRIC HEATING FROM THE UNDERFLOOR HEATING SYSTEMS PRODUCT RANGE BY FLEXEL



- Economical, silent, invisible
- Gentle, safe overall warmth
- Easy to install & control
- Maintenance free
- Guaranteed for 10 years

The 'ECOFLOOR' logo is displayed in large, bold, orange-outlined letters. Below it, the tagline 'underfloor heating mat' is written in a smaller, white, sans-serif font. To the left of the text is a stylized orange and grey wave graphic.

**ECOFLOOR**  
underfloor heating mat

*W a l k i n g   o n   S u n s h i n e*



EXPERIENCE THE LUXURY THAT IS ECOFLOOR UNDERFLOOR HEATING

Flexel International Ltd have been manufacturing and supplying the world market with its unique underfloor heating systems for over 30 years.

Ecofloor provides the luxury of electric, underfloor heating to bathrooms, kitchens, conservatories or almost anywhere a tile floor is being laid.

Ecofloor is simple to install (see page 5). Being electric with no moving parts, it is maintenance free and surprisingly economical to run. An elegantly styled thermostatic controller puts you in complete control.

Ecofloor is ideal for the family home. It is draft free and safe with no hot surfaces within reach of children. In fact, it is ideal for any home, new or existing as the heat source is placed under the floor allowing for freedom of design and planning.

There you have it. Ecofloor is economical, safe, silent, easy to install & use and is of the highest quality with a 10 year guarantee.

With Ecofloor you will be . . .

Walking on Sunshine



Choosing the Correct Ecofloor Solution

Choosing the correct Ecofloor solution could not be simpler!

Ecofloor Underfloor Heating Mats come in modular packs. All you need to do is calculate the total, usable room floor area with allowance to avoid fixed furniture such as kitchen units and bathroom sanitary fittings with a 5% allowance for perimeter clearance. Then simply select the nearest size of mat or combination of mats below the usable area from the accompanying table.

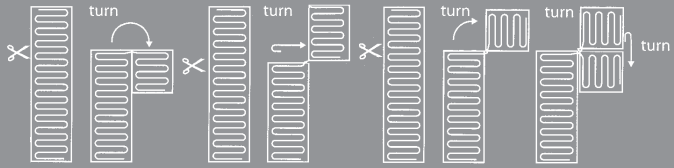
e.g Free floor area of 5.5m² will require mat 12 810-165 covering 5.1m²

Type	Output (W)	Surface Output (W/m²)	Width (m)	Length (m)	Area (m²)	Cold Resistance(Ω)
12070-165	70	160	0.5	0.90	0.50	760
12130-165	130	160	0.5	1.60	0.80	407
12210-165	210	160	0.5	2.60	1.30	252
12260-165	260	160	0.5	3.20	1.60	203
12340-165	340	160	0.5	4.20	2.10	156
12410-165	410	160	0.5	5.20	2.60	129
12500-165	500	160	0.5	6.00	3.00	106
12560-165	560	160	0.5	6.70	3.35	94
12670-165	670	160	0.5	8.30	4.15	79
12810-165	810	160	0.5	10.20	5.10	65
121000-165	1000	160	0.5	12.30	6.15	53
121210-165	1210	160	0.5	15.10	7.55	44
121400-165	1400	160	0.5	17.60	8.80	38
121800-165	1800	160	0.5	22.00	11.00	29
122150-165	2150	160	0.5	26.60	13.30	25
122600-165	2600	160	0.5	32.50	16.25	20

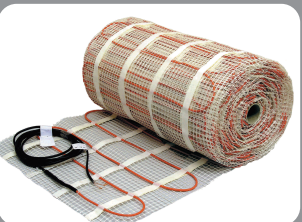
12210-205	210	200	0.5	2.1	1.05	252
12410-205	410	200	0.5	4.1	2.05	129
12560-205	560	200	0.5	5.6	2.80	94
12810-205	810	200	0.5	8.1	4.05	65
121000-205	1000	200	0.5	10	5.00	53
121210-205	1210	200	0.5	12.1	6.05	44
121400-205	1400	200	0.5	14	7.00	38
121800-205	1800	200	0.5	18	9.00	29
122150-205	2150	200	0.5	21.5	10.75	25

\* 200 W/m² mats are recommended for Conservatory use only.

Each Ecofloor mat is designed to be cut to fit around corners and objects as demonstrated below. However, please note that only the mat can be cut and not the heating cable. The matting can also be cut away to enable you to use the cable to heat hard to reach areas.



WHAT DO I NEED?



Each Ecofloor Underfloor Heating Mat comes complete with:

- Cable Mat
- Integrated Adhesive Tape
- Full instructions
- Manufacturers Guarantee

A control pack is sold separately and is suitable for all the Ecofloor range.

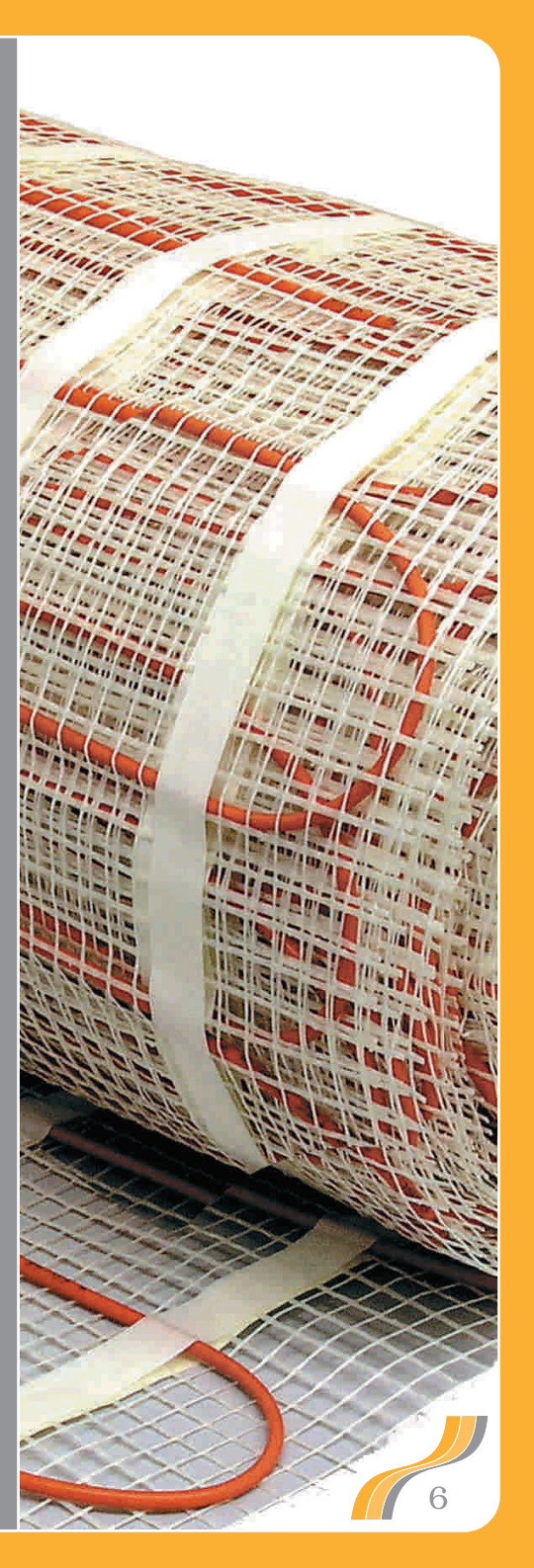
It includes:

- Thermostatic Programmer (TH132AF or TH132F)
- Floor Sensing probe (3m)
- Floor Sensor Protective Tube



It is recommended that you install insulated tile backer board before laying Ecofloor. This will ensure quicker warm up times and reduce running costs.

Flexel recommends the use of Marmox or Knauf Aquapanel Thermal insulated tile backer boards.



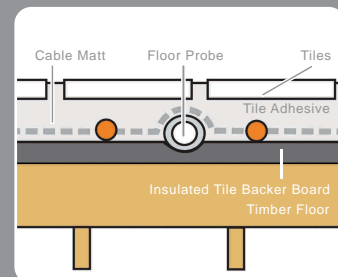


## INSTALL ALMOST ANYWHERE

Ecofloor can be installed on top of either suspended timber floors or even solid concrete floors enabling installation in all room types.

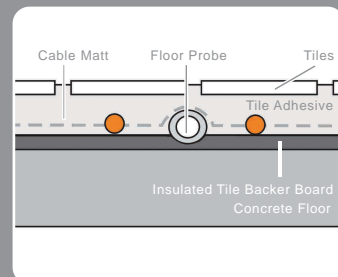
Ecofloor can also be installed under many floor coverings including:

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



### SUSPENDED TIMBER FLOORS

When fitting electric underfloor heating to a timber sub-floor it is essential that you take the standard precautions to prevent floor movement that may cause grouting to crack or tiles to displace. For both timber floor boards or chipboard flooring please follow good tiling practice to stabilise the sub-floor. We would recommend the installation of a suitable insulated tile backer board to minimise heat losses and ensure quicker heat-up times for the floor. The heating mat is then laid on the tile backer board using the adhesive strips. It is covered with a layer of flexible tile adhesive before the tiles are laid.



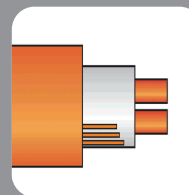
### SOLID CONCRETE FLOORS

Before fitting the heating cable it is advisable to fit a layer of insulated tile backer board. This will minimise heat losses and ensure quicker heat-up times for the floor. The heating mat is then laid on the tile backer board using the adhesive strips. It is covered with a layer of flexible tile adhesive before the tiles are laid.



## 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 override functions. *Do not install the thermostat within a bathroom. For installation in bathrooms we recommend the use of floor sensing only thermostats.*



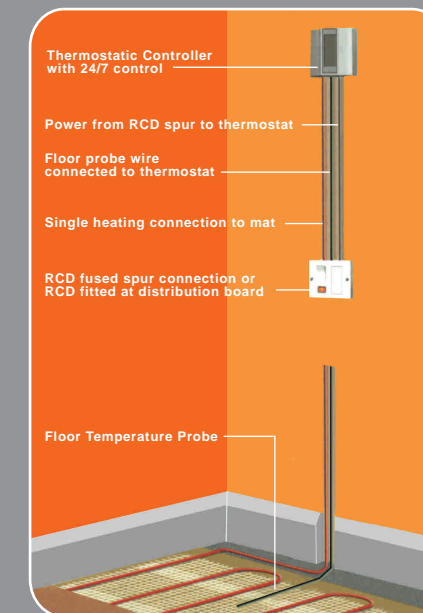
## CABLE CONSTRUCTION

The Ecofloor cable mat has a twin core cable simplifying installation with only a single "cold tail" connection. The cable has two layers of extremely tough, durable insulation which minimises potential damage during the installation process and ensures prolonged cable life. It is also fully earthed, making it suitable for installation in bathrooms and kitchens.

## CUT-AWAY OF INSTALLATION

### Electrical Requirements:

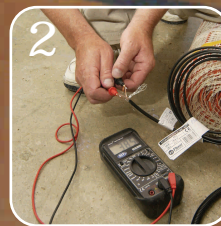
- Ecofloor Underfloor Heating Mats are very simple to install by following the comprehensive instruction booklet included with each cable mat kit. The final electrical connection should be made by a qualified electrician in accordance with the current wiring regulations.
- All installations require an 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.







After preparing a smooth surface, measure the area to be heated and fit the insulated tile backer board to the floor securely following the manufacturers instructions. Create a groove in the board to accommodate the tubing for the floor probe.



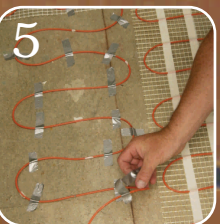
Check the cable resistance using an Ohmmeter before beginning the layout.



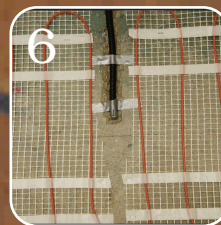
Planning is extremely important at this stage so it is advisable to lay the mat out over the surface of the floor without sticking it down to enable you to have a clear idea of how the mat will be laid.



Once you are satisfied with the proposed layout stick the matting to the floor using the integral self-adhesive fixing strips.



For hard to reach areas or areas where the mat cannot be fully rolled out detach the cable from the mat and attach to the floor uniformly with duct tape.



Insert the floor probe into the tubing and ensure the probe is between two cables. Test the cable resistance reading. A fully qualified electrician must now make the final connections to the mains supply and install the thermostat. \*

6 Simple Steps to Walking on Sunshine

\* Tile over as soon as possible using a flexible ceramic tile adhesive, before consulting the manufacturers instructions as to a suitable time period before turning on the system.



## UNSEEN LUXURY

Today, underfloor heating is the perfect way to create a comfortable environment. Imagine the comfort of standing barefoot on a warm tile floor on a winters morning - Luxury. *Ecofloor* can make your dreams come true.

## COMFORT

By using the whole surface of the floor to radiate heat, *Ecofloor* provides the perfect heat distribution throughout the room, resulting in a feeling of warmth wherever you are.

## ECONOMY

Floor heating produces the optimum heat distribution in any room. This means that air temperatures can be lowered by 2-3 degrees compared to a conventional convector system while still maintaining a comfortable environment. *Ecofloor* can realise energy savings of up to 10% if the floor is well insulated.

## FREEDOM

Radiators do not contribute to the aesthetics of a room and influence room layout. Installing *Ecofloor*, out of sight, under the floor, completely invisible and unobtrusive allows you more flexibility in creating your perfect living environment.

## SAFETY

As well as removing hot surfaces, *Ecofloor* will quickly dry up wet areas in bathrooms, shower rooms and kitchen flooring, preventing dampness and avoiding potentially slippery surfaces.

## SIMPLE CONTROLS

*Ecofloor* is controlled independently of the main heating system. Each area heated is controlled by an elegant but simple timer-thermostat that offers total control 24 hours a day, 7 days a week. This allows maximum flexibility to fit with your lifestyle.