

Selecting The Correct Cable Size

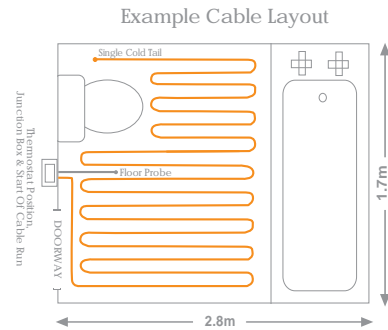
Before commencing laying the ECOFLEX heating cable, it is good practice to plan your installation using a sketch marking your layout pattern and planning the positions for the thermostat floor probe & junction box.

In new build installations, mark the position of floor fitted objects that will be installed once the floor is finished e.g. baths, showers, wc etc. These should be avoided. Also avoid any areas where floor fixings may require to be drilled. This will allow you to calculate the "free" or "effective" floor area and select the appropriate cable kit size.

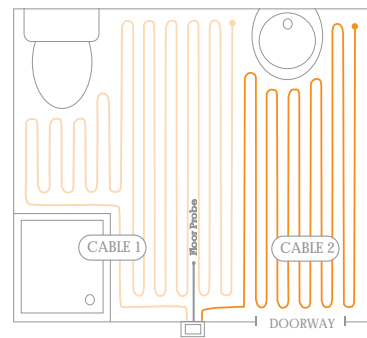
We recommend that you spend time planning your installation and selecting the correct cable kit size as THE CABLE CANNOT BE SHORTENED.

Always accurately measure and calculate the effective floor area that you want heated before selecting the appropriate cable kit size from the product selection chart.

For larger areas cables can be connected in parallel.



This example layout would require a 3.0m². CK3 cable



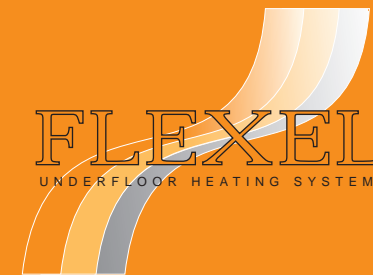
Thermostat Position, Junction Box & Start Of Cable Run

Product Codes

Area to be heated (m ²)	Product Code	Wattage (W)	Price Ex. Vat (£)
1.2-1.9	CK1	225	76.48
2.0-2.9	CK2	350	95.96
3.0-3.9	CK3	525	107.95
4.0-5.9	CK4	700	141.46
5.0-6.4	CK5	875	159.98
6.5-7.4	2 x CK3	1050	215.90
7.5-8.9	CK3 + CK4	1225	249.41
9.0-9.9	2 x CK4	1400	282.92
10.0-10.9	CK4 + CK5	1575	301.44
11.0-11.9	2 x CK5	1750	319.96
12.0-13.4	2 x CK3 + CK5	1925	375.90
13.5-14.4	3 x CK4	2100	424.38
14.5-15.9	2 x CK4 + CK5	2275	442.90
16.0-17.4	CK4 + 2 x CK5	2450	461.42
17.5-18.9	3 x CK5	2625	479.94
19.0-20.4	2 x CK3 + 2 x CK5	2800	535.86
20.5-21.9	CK2 + 3 x CK5	2975	575.90
22.0-23.4	2 x CK4 + 2 x CK5	3150	602.88
23.5-24.9	CK4 + 3 x CK5	3325	621.40

Accessories

Product Code	Description	Price Ex. VAT (£)
TB06	6mm ECOMAX tile backer board (800mm x1250mm)	16.40
TB10	10mm ECOMAX tile backer board (800mm x1250mm)	16.40
TH132AF	Digital programmable thermostat (Air & Floor) (15Amp)	68.00
TH132F	Digital programmable thermostat (Floor only) (15Amp)	68.00
EB100	Manual analogue thermostat (12Amp)	50.00



Authorised Distributor:

Version 1.1 - February 2010 - Un-Priced

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

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Electrical Requirements

- ECOFLEX underfloor heating cables are very simple to install by following the comprehensive instruction booklet included with each cable. 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 cables require connection to the thermostat via a standard junction box.

BEAB

ECOFLEX

undertile heating cable kit

Ideal for tile & stone floors in
kitchens, bathrooms & conservatories...

APPROVED
to comply
with the
17th Edition
Wiring
Regulations



Discover Affordable Luxury

Kit Contents



HEATING CABLE

ECOFLEX thin, twin conductor heating cables with 100% aluminium earth sheathing suitable for use in any wet area.



ADHESIVE TAPE

Heavy duty adhesive tape for securing and covering the ECOFLEX cable to the primed floor.



FLOOR PRIMER

High quality floor primer and roller ensures the floor surface is clean and dust free before the ECOFLEX cable is installed. The primer is coloured for easier coverage control and dries to a clear finish.



THERMOSTAT CONDUIT

Length of high quality flexible conduit for protection of the thermostat floor probe.



INSTRUCTIONS

Detailed instructions include high quality installation photographs and diagrams to ensure straight forward installation. The booklet also contains the guarantee certificate.

Undertile heating for kitchens, bathrooms & conservatories

Easy To Install & Control

ECOFLEX Underfloor Heating Cables provide an ideal heating solution for your kitchen, bathroom or conservatory. The cables can be installed on top of existing wooden or concrete floors that are sound and suitably prepared

ECOFLEX cables are ideal for smaller installations or in rooms with an irregular layout. The flexibility of the loose cabling system makes it possible to heat the maximum floor area including hard to reach areas.

ECOFLEX cables have a twin conductor cable simplifying installation with a single 3m "cold tail" connection. The finished installation is controlled using an easy to use thermostat. ECOFLEX cable kits come complete with: heating cable, floor primer, adhesive fixing tape and comprehensive fitting instructions. Required accessories such as thermostats & floor insulation are available seperately.

Install Almost Anywhere

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

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

10 Year Guarantee

ECOFLEX 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 ECOFLEX 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 ECOFLEX 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?

ECOFLEX 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 ECOFLEX 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

ECOFLEX 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.

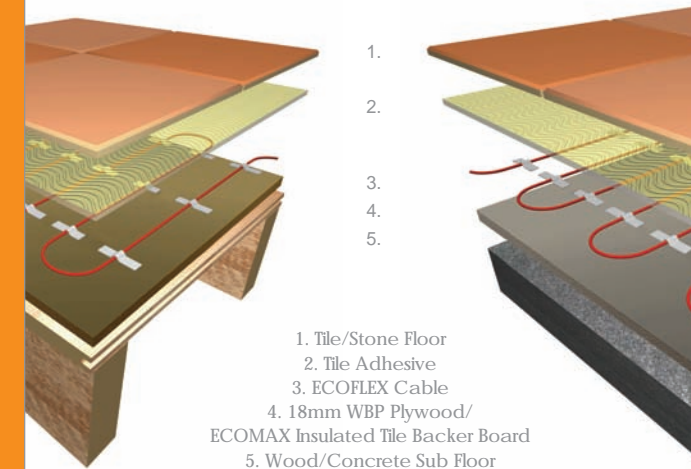


Floor Construction

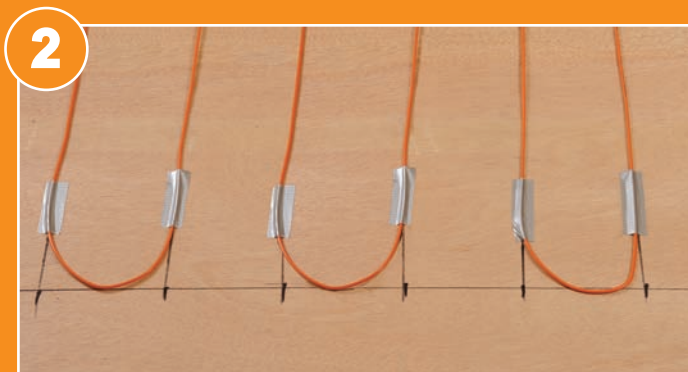
For CONCRETE SUBFLOORS we strongly recommend adding a layer of insulation to the slab prior to installing the floor heating system. Flexel recommend the use of an insulated tile backer board with an extruded polystyrene core and polymer cement facing, such as ECOMAX insulation board. This will minimise heat losses to the subfloor and ensure quicker heat up times for the floor.

Fix the insulation to the subfloor, following the manufacturer's instructions. The ECOFLEX cable system can be laid directly on top before being tiled over. It is important that you use a good quality flexible tile adhesive and grout.

When fitting ECOFLEX cable to TIMBER SUBFLOORS it is essential that you take the standard precautions to stabilise the floor to prevent movement. You must always over-board the timber floor boards or chipboard with a surface suitable for tiling. Flexel recommend ECOMAX insulated tile backer board or primed 18mm WBP plywood.



1 Before laying the cable paint the floor with the primer supplied.



2 Lay out the cable in loops & tape in position.



3 Apply adhesive tape over the entire length of the cable to secure in position.



4 Apply flexible tile adhesive and lay the tiles.