



## ECOFLOOR™ Cable Mats

### Installation Guide

All cables incorporate an earth screen to allow installation into wet areas. The diagram shows a bathroom that is just under 3m x 3m. The total usable area is, however, 5m<sup>2</sup>.

Therefore for optimum heat output the correct kit to use will be EK10 750 covering 4.7m<sup>2</sup>. This example also highlights the advantage of the Ecofloor twin conductor heating cable requiring connection to the electricity supply at one end only thereby removing the need to design the layout to get the cable back to the termination point.

### Floor preparation

Cable kits can be laid onto most existing floor surfaces that are sound and suitably prepared. Any existing floor coverings such as carpet or vinyl must be removed. Bitumastic sealant should be covered with a floor-levelling screed.

### Primer

When installing the kit over concrete, wooden or existing tiled floors refer to the manufacturers standard guidelines.

### Concrete floor

New concrete floors must be allowed time to cure naturally. This will depend on weather conditions but normally one week per 25mm is taken as a guideline. Existing concrete floors must be clean and level and where necessary a self-levelling screed (latex compound) should be applied ahead of the cable installation.

### Timber floor

Existing timber floors must be clean, sound and level. To achieve this it may be necessary to have a screw fixed overlayment of WBP (weather and boil proof) plywood.

### Insulation

To ensure optimum performance and minimize running cost floor insulation such as Aquapanel, Celotex, Marmox or Wedi Board should be laid directly under the heating cable. Particularly suitable for retrofit installation R&D offer 6mm Depron insulation requiring a proprietary bonding primer.

### Marking out and other preparatory work

Having determined the size of the area to be heated, the heat level required and the electrical supply position form a channel in the floor adjacent to this point as illustrated.

Thermostat supplied

## Fused spur

With a suitable marker and using either the ruler supplied or for other spacings a tape, mark out the fixing centres equally at opposite ends of the room taking into account that the installed cables should be no closer than 50mm from the walls and any other fixed obstructions.

Final connection and testing should be carried out by a qualified electrician but prior to this and at this stage a thermostat and supply provision should be made as typically shown.

## Laying the cable

A hole is provided at the side of the box to feed out the cable. Do not take the cable off the drum before laying as it will twist and make the installation difficult.

Connection is only required at one end. The first 3 metres is black cable which can be cut as required. The orange cable is the heated part which must never be cut or shortened. As shown loop the cables to the required marked spacings and secure to the floor as you go using the fixing tape supplied. Towards completion it may be necessary to slightly readjust the cable spacings to the available area. This will not be a problem as long as the cables remain at least 50mm apart and do not cross. Never bury or try to hide the cable.

**If necessary start again.** If you have ordered the wrong size of kit contact your supplier.

## Installation of larger areas requiring 'add-on' cables

Illustrated is a 20 square metre conservatory requiring a type EK10 2950 cable kit to provide optimum heat. (18.4m<sup>2</sup> coverage allowing for edge clearance.)

Firstly mark out the floor as previously described.

Using the main kit cable (2000 watts) run this out from the termination point to the opposite end of the room and lay at 7cm spacings (12.5m<sup>2</sup> coverage) back towards the control point. Check that remaining floor area will accommodate the additional 950 watt cable (5.9m<sup>2</sup> coverage). Lay the additional cable and if necessary adjust the spacing to achieve full floor coverage. (The thermostat sensor must be positioned centrally between cable loop.)

## Tiling the floor

Once the cables are laid suitable protection boards must be laid to avoid damage during tiling.

Tile adhesive can be laid in either a single or a two layer operation depending on the tiler's preference to accommodate the 3mm cable thickness. The adhesive must be laid evenly in the same direction as the cables are running making sure there are no air spaces.

## Installation of the thermostat and floor probe (sensor)

Follow the instructions provided with the thermostat. Cut a channel for the protective spiral hose for the floor probe. Fix the hose into position and shorten to the required length. Feed the probe into the hose and block off the end. The probe is then attached to the thermostat.

The thermostat should be installed in the room that is to be heated. Unless using Type RTR 3545, the thermostat must be placed outside the bathroom, as close to the installation as possible. If necessary, the heating cable cold tail and thermostat can be extended by up to 50 metres.

Test the cable circuit for continuity (resistance) using an ohmmeter. Avoid traffic over the cable.

**Final connection and testing should be carried out by a qualified electrician.**  
**Important**

Care must be taken not to thermally block the heated area by fitting the cables beneath permanent fixtures such as sanitary ware, shower enclosures, kitchen fittings and bedroom units as this will cause localized heat build up and possible damage to the floor covering.