



Cosyfloor™ Cable Mats

Installation Guide

Important

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

A minimum space of 50mm should be left from the walls and any other fixed objects.

Description & Sizing Guide

Thin profile, double insulated and earth braided twin conductor cable attached to an openweave matting at 160w/m² output. As the cable is twin core, return feed to the thermostat is not required.

| Type | Output (W) | Surface (W / m ²) | output (m) | Width (m) | Length Area / m ² (m ²) | Resistance (Ü) |
|------------|---------------|----------------------------------|---------------|--------------|---|-------------------|
| 12210-165 | 210 | 160 | 0.5 | 2.60 | 1.30 | 252 |
| 12260-165 | 260 | 160 | 0.5 | 3.20 | 1.65 | 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 | 6.10 | 3.00 | 106 |
| 12670-165 | 670 | 160 | 0.5 | 8.30 | 4.20 | 79 |
| 12810-165 | 810 | 160 | 0.5 | 10.20 | 5.10 | 65 |
| 121000-165 | 1000 | 160 | 0.5 | 12.30 | 6.10 | 53 |
| 121210-165 | 1210 | 160 | 0.5 | 15.10 | 7.60 | 44 |
| 121400-165 | 1400 | 160 | 0.5 | 17.60 | 8.80 | 38 |
| 122150-165 | 2150 | 160 | 0.5 | 26.60 | 13.30 | 25 |

Control Options (available to order from R&D)

Type 132AF 16amp dual floor and air sensing thermostat with integral clock and floor sensor. Functions include optimum start, 4 daily programmes with separate day, night and holiday settings

Type EB100 12 amp electronic multifunction thermostat with optional floor or air sensing facilities

Type RTR 3521 10amp mechanical air sensing thermostat

Type RTR 6121 10amp mechanical air sensing thermostat with min / max temperature locking

Type RTR 3545 10amp tamperproof air sensing thermostat suitable for installation in bathrooms

Example of layout

Fig 1 highlights the advantage of Cosyfloor™ twin conductor heating cable, requiring connection to the power supply at one end only, thereby eliminating the need to design the layout to return the cable to the termination point.

Floor preparation

Cosyfloor™ can be laid on to 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 leveling screed.

Primer - When installing the mat over concrete, timber or existing tiled floors, refer to the manufacturer's standard guidelines.

Concrete - New concrete floors must be allowed to cure naturally. As a guide, depending on weather conditions, this will take 1 week per 25mm. Existing concrete floors must be clean and level and, where necessary, a self leveling screed (latex compound) should be applied prior to installation of the heating mat.

Timber - Existing timber floors must be clean, sound and level. It may be necessary to fix a screw fitted over layment of WBP (weather and boil proof) plywood or marine board.

Insulation - To ensure optimum performance and minimize running costs, floor insulation such as Depron (from R&D), Aquapanel Thermal, Marmox or Wedi Board should be laid directly under the Cosyfloor™ mat.

Installation

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 in Fig 2.

The cables should be no closer than 50mm from the walls and any other fixed objects.

The thermostat and supply provision should be made as shown in Fig 3.

Lay **Cosyfloor™** Cable mats as shown below. Connection is only required at one end. The first 3m (cold tail) is black cable that can be cut as required. The orange cable is the heated part which must never be shortened.

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.

Referring to the table on page 2, test the cable circuit for continuity (resistance) using an ohmmeter. Avoid traffic over the matting.

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

Tiling

Once the mats have been laid and tested, suitable protection, such as boards or old carpet must be provided to prevent damage until tiled, or otherwise finished. The adhesive can be laid in either single or two layer operation, depending on preference, to accommodate the 3mm thickness of cable. The adhesive must be laid evenly in the same direction as the cables are running, making sure there are no air spaces.

The products on the enclosed sheet are suitable for use with *Cosyfloor*[™].

Larger areas requiring multiple mats

Illustrated is a 20m² conservatory requiring a 122150-165 mat and a 12670-165 mat to provide optimum heat. (17.5m² coverage allowing for perimeter clearance.) Run the main mat (122150-165) from the termination point to the opposite end of the room. Check that the remaining area will accommodate the additional mat. Lay the 2nd mat and, where necessary, cut the matting to allow it to run round objects or previously laid mat.

The mats must not be overlapped.