

Decoupling Membrane Instructions

It is of vital importance that the installation of any underfloor heating system is planned and you understand the requirements of the heating system of your choice.

The heating cable layout must be pre-planned to avoid any 'cross over's'. The positioning of sensors and the power supply must also be pre-determined.

For general room heating we recommend that cables are installed in the carrier membrane at an output between 140W and 185W/sqm. For Heat Mat's PKC cables operating at 14W per metre a cable run every 3 studs/9.6cm will provide an output of 145W/sqm. Using the 3.5mm HMH cables will operate at 160W/sqm if installed with a 3 stud gap.

Floor Preparation:

- The subfloor must be free of any loose material that could impair adhesion.
- It must be level and able to bear weight. Any levelling must be completed before the decoupling membrane is installed.
- The adhesive should be chosen dependent on the nature of the sub floor. It must be capable of bonding to the sub floor surface and to the backing fleece of the membrane.
- Maintaining the stud pattern alignment, the matting sections should be cut to size to cover the desired surface.
- If subject to heavy traffic, it is recommended that they be protected from damage by over laying walk boards.
- For most surfaces a water-based thin-bed adhesive (C2 quality) can be used. The adhesive is applied to the subfloor using a serrated trowel (6 x 6mm).
- In wet areas we advised sealing junctions between mats with membrane or PKC-DEC-10MT tape.
- Lay the membrane onto the tile adhesive bed and press down with even pressure to ensure it is well bonded.

Installation of heating cable:

As soon as the membrane has been installed and the adhesive has cured, the electrical heating system can be installed according to the instructions on the reverse of this sheet.

Installation of the floor covering:

- Tiles can be installed using a thin-bed adhesive.
- It is advisable to apply adhesive in one operation, embedding the heating cables in that process. Care must be taken to ensure that the adhesive completely surrounds the heating cable without leaving any air gaps. The cutouts for the coldtail connection and end termination must be completely filled with tile adhesive.
- Install the tiles after pre 'buttering' the underside. The tiles must be embedded in the adhesive to achieve solid bedding.
- The depth of the serrations on the trowel must be appropriate to the tile format. Make sure this is all done while the adhesive is still fresh and within its 'open time'.

Please note:

- Decoupling membrane is not suitable for external use.
- PKC-DEC membrane is supplied in rolls of 5m² and 15m² and in 1m² panels. The width of these is 1m, however due to unavoidable trimming of the material to ensure the production pattern is maintained, the width may be reduced by up to 25mm.
- Where movement joints are required, follow professional advice and guidelines (BS 5385), TTA Guidelines or contact our Technical Team.



Heat Mat

Underfloor Heating

Heat Mat's decoupling membrane is available in 1m² square panels, (Please note: 1m² panels should be temporarily rolled the opposite way to ensure that they lie flat) and 5m² and 15m² rolls. This product is designed for use with the PKC-3.0 range of heating cables and is also suitable for most other undertile heating cables between 3mm and 5mm in diameter.

- Heat Mat recommends an output of between 140W and 185W/sqm regardless of the heating cable you are installing.
- With uninsulated sub-floors you should consider using thermal insulation boards beneath the decoupling membrane to ensure a speedy warm-up time.
- The cable spacing you should use will depend on the Wattage output of the heating cable you have chosen; please refer to the cable's technical information for this detail. The heating should never be laid at an output per square metre above 200W/sqm.
- When fitting the cable into the decoupling mat it should easily click into place and should be tightly held; no tape should be required to prevent the cable from moving.
- For a tighter fit, you can "lock" the cable in place as seen in Fig 3, this should be done once every 1 to 2 metres.
- When fitting the floor sensor this should be fitted equidistant between heating cables by fixing it down into the membrane. This sensor should be placed between the two cables that are closest to each other to ensure it monitors this warmest area.
- The decoupling mat must be removed from beneath the coldtail connection and end termination so that they can lay flat to the sub-floor and do not stand proud of the mat. You should remove a 6 stud by 2 stud section from beneath the coldtail connection, and a 3 stud by 2 stud section from beneath the end termination, and then the connections should be held down in the centre of these areas with double-sided tape or glue from a hot glue gun (see fig 1 and fig 2).
- It is vital that these connections are not taped over and that when tiling on top they are completely surrounded by cementaceous tile adhesive.

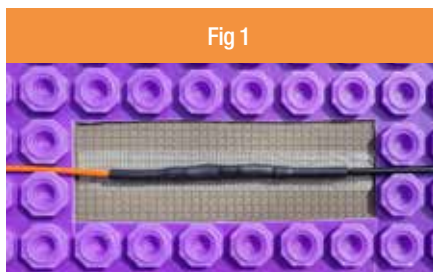


Fig 1

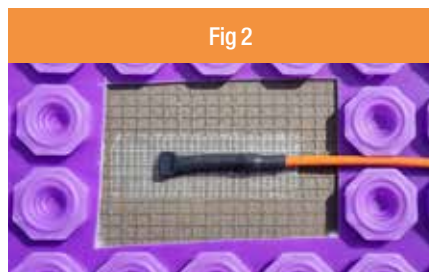


Fig 2

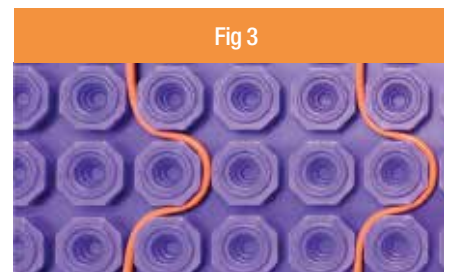


Fig 3

Product code	Description	Approximate dimensions
PKC-DEC-0100	1m ² panel of decoupling membrane	1m x 1m
PKC-DEC-0500	5m ² panel of decoupling membrane	5m x 1m
PKC-DEC-1500	15m ² panel of decoupling membrane	15m x 1m
PKC-DEC-10MT	10m roll of 120mm wide sealing tape	10m x 120mm



PKCDECX

Call our technical support team
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