

Installation Instructions

Step 1:

Ensure the sub floor has been solidly fixed down and free of dust and debris. Timber floorboards must be covered with a suitable thickness marine ply or suitable tile backer boards (PLEASE CONTACT FOR ADVICE IF YOU ARE UNSURE).

Do not use XPS boards on a timber sub floor.

Bitumen coated floors must be covered by a tile backer board or 3 to 5 mm of a self-smoothing compound that is suitable to cover bitumen.

Never install a cable or mat onto a bitumen covered surface.

Step 2:

Prime the floor with the acrylic based primer (this primer is not suitable for Anhydrite screeds). Leave to dry, typically 1 to 2 hours dependent of air temperature.

Avoid excess foot traffic on primed surface.

Always check that the self-smoothing compound and tile adhesive are compatible with the primer (most are) but if in doubt check with the manufacturer of the self-smoothing compound and adhesive.

Step 3:

If using tile backer boards or XPS insulation boards, please follow the manufacturer's instructions.

Fix the boards in a brick bond fashion. Either fix the boards with a cement-based tile adhesive or screws and washers. Fix the screws at a maximum 300mm centres dependent on the sub floor.

IMPORTANT

Do NOT use XPS insulations boards on to a timber sub floor, use tile backer boards to give a stable sub floor.

Step 4:

Refer to the testing procedure on Page 6 it is very important that the testing is carried out.

Step 5:

Prepare floor plan of the area to be heated and identify suitable location of the fused spur and thermostat position - mark the layout of the underfloor heating mat on the floor plan. This is an important step and must be carried out correctly to ensure that all the mat is used up. Once a mat has been unrolled it can not be returned.

Step 6:

Start installing the floor heating mat from the thermostat position. Roll out and secure the mat to the floor. The heating mat has a sticky mesh, simply press this down onto the floor and it will hold in place. If you need to turn the mat 90 degrees upside down you can use the double sided adhesive strips to hold the mat in place. A small amount of additional cloth tape is provided to ensure the mat is flat to the floor in places where it is uneven.

DO NOT use excessive long strips of tape along the edges of the heating mat(s) as this can cause problems with adhesive/latex bonds, please ensure any tape used is primed with suitable primer before applying adhesives/latex.

The floor heating mat should be between 50-100mm from the wall perimeter. Note: when installing around awkward shapes like a toilet or sink the cable can be removed from the mesh matting and placed loose on the floor to suit the shape (fix with minimal duct tape to hold in place), at no point must the cable be spaced closer than 50mm between any 2 loops of cable.

Step 7:

When you reach the end of the room the mat can be cut. **DO NOT cut the cables.**

COLD TAIL AND END JOINT INSTALLATION

When installing the heating mat you need to be careful with how you install the end joint and cold tail joint (the join between the supply lead and the heating mat). They can potentially overheat if the following steps are not taken.

As the joints on the heating mats are a much larger diameter than the heating element it is inevitable that you will need to cut a small channel or groove for them to sit into the subfloor or the insulation board.

Once they have been installed in this groove it is important that you do not cover them with tape as this will create an air void preventing the joint from dispersing its heat, this can lead to a potential failure

The cold tail joint can be secured in place by taping the cable either side of the joint, a small piece on the heating cable and a small piece on the cold tail. This will ensure the joint is NOT covered with tape.

The end joint can be secured in place by taping the red heating element just before the joint to help secure it in place. This will ensure the joint is NOT covered with tape. Both these heating joints MUST now be fully encapsulated within levelling compound and/ or tile adhesive.

Step 8:

Check and record the insulation resistance value and the cable resistance value.

Step 9:

The cold tail from the cable has an earth which is a braided wire. If it is necessary to shorten the cold tail, at the thermostat, then the earth braid must be 'unpicked' with a small screwdriver or similar tool.

IT MUST NOT BE CUT ALONG ITS LENGTH as this will cause it to become unravelled. It should then be twisted back together and connected to the incoming earth on the power supply.

Step 10:

Position the sensor in the black conduit supplied from the thermostat position down in between two runs of cable (not overlapping the heating cable) and tape into position. If using insulation boards, these can be cut to allow the conduit to be placed inside. If installing directly onto plywood then a groove can be cut using a sharp chisel (beware of pipes). The joint between the heating cable and the cold tail can also be placed inside a groove in the floor as this can be bulky and difficult to tile over. The sensor wire can be shortened or lengthened. If you need to cut the sensor wire you must only cut the end with the exposed wires.

DO NOT cut the end which contains the plastic sensor. The connections to the thermostat can now be made

Step 11:

Test the heating cable as before plus carry out 500 DC Volt Insulation resistance test.

Step 12:

If possible cover the cables with a thin layer of suitable latex based levelling compound (5-6mm). This will help protect the cables when tiling. You may tile directly over the cables, however extra care must be taken not to dislodge the cables or to damage the cable in anyway.

If you are using a vinyl floor covering, then a minimum 10mm self-smoothing compound should be used to cover the mat. **PLEASE CONSULT VINYL FLOOR INSTALLER BEFORE INSTALLING** the compound for suitability with the floor covering.

If using carpet as a finish floor covering, then a 10mm self-smoothing compound can be used with a suitable low tog underlay (please check with manufacturer for suitability).

THE CARPET AND UNDERLAY MUST NOT EXCEED 2.5 TOG COMBINED.

You can now lay your flooring according to your floor manufacturer's instructions. Please refer to adhesive manufacturer's guidelines for drying times before turning on your heating system, this is usually around 7 days, the floor temperature should be increased gradually by 1-2 degrees per day over a 2 week period to reduce the risk of force drying. If in any doubt please check with adhesive/latex manufacturers for advice.