

# Inslab Heating

## Installation Instructions

**warmup®**  
Est. 1994

Underfloor heating | Tiled shower solutions



## Installation

Warmup's inslab elements are designed for installation within the concrete slab.

The element wire is tied to the reinforcing mesh of the concrete floor prior to it being poured. The elements consist of fixed length earth-screened electric heating cables of large diameter (approx 6.2mm) with factory-fitted cold tails for connection to supply.

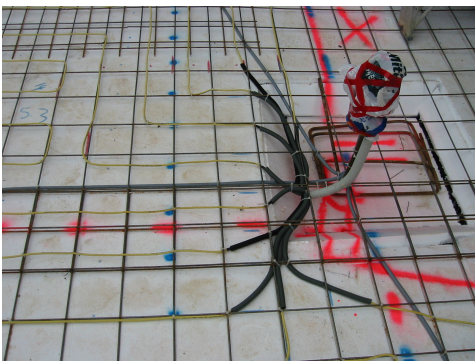
The heating wire (encased in a tough insulation, is then covered with metal braiding – providing an electrical earth and added protection.

A super tough PVC outer shield then provides further insulation and protection. The result is a super tough element capable of withstanding the rigors of a typical concrete pour.

The resistance wires are factory terminated in a waterproof joint assembly to the supply conductor and earth conductor of the cold tails respectively. Typical design wattage is 150 watts per square meter.

Our cable spacing can be varied from between 150mm and 300mm depending upon requirements but is typically around 180mm.

Note: All installations should be protected by a RCD (Residual Current Device).



## Preparation

An electric cable approx 6mm in diameter should be installed in the required areas of the floor. The cable is tied to the reinforcing mesh of your concrete slab at an approximate spacing of 150mm - 250mm. Because it is encased in concrete with no room for second chances it is important that the preparation is correct.

- The floor slab must be insulated. 25mm “S” grade polystyrene will provide adequate insulation in most instances. Installed over the moisture barrier, and held in place by the reinforcing mesh - it is a must have for the economic operation of your heating.
- The electrical loadings of the heating may be significant in relation to the power you have available. Your electrician must be made aware that you are installing the heating. and provision must be made to cover the appropriate power requirements.
- Clearly mark, using Dazzle spray or similar on the prepared slab, the actual areas to be heated.
- The floor must be marked out showing all relevant walls, and possible fixtures to the floor ie floor lighting or mid room power points.
- Clearly mark all concrete cuts - whether for expansion or cosmetic purposes. Where appropriate (across concrete cuts) run the heating element underneath the reinforcing mess. This may entail cutting of the mesh in selected areas.
- It is advisable not to have structural concrete cuts in any heated areas. If they must be done, however, they should be clearly marked on the floor as such and should be no deeper than 20mm.

- Thermostat position. We require a termination point for the elements within the room to be heated. The thermostat does not necessarily need to be positioned at this point but we will need to install a junction box close to the floor level.
- If at all possible organize your concrete floor to be “pumped” rather than “barrowed” (i.e. wheel barrows). The less opportunity to damage the heating, the less chance damage will occur.

## **Timing of the installation:**

You will require one full day for each 60m<sup>2</sup> of heating cable to be installed

Please include sufficient time for the preparation to be completed and the heating installed the day before the concrete is poured.

Prevention of accidental damage either prior to or during the concrete pour is obviously crucial to the successful operation of your heating.

Whilst faults can be traced and our heating element can be repaired, common sense as well as following simple guidelines will ensure a successful installation.

We do fit audible alarms that will sound if damage to the heating element occurs and check the heating prior to and following installation but prevention is far better than cure.

Damage to our elements can usually be repaired. We reserve the right to charge for fault finding and repairs if required.

## Electrical Circuit Wiring

1. The elements once installed will be given a full electrical check and unless specified, will be rechecked following the concrete pour, and following any concrete cutting.
2. The heating, once installed, will be fitted with audible alarms. These alarms are designed most but not all types of damage. Care and common sense must be employed when working over the elements. Should the alarm sound please contact us immediately
3. Your site electrician will need to do the circuit wiring. This includes actual positioning up the wall ( constructed) of our element tails. Please contact us prior to the pre-wiring stage so we can confirm requirements with the site electrician. If you prefer us to undertake this work we will quote accordingly.

## Commissioning

1. Once the house is nearing completion please contact us for a final element check of the controllers. All electrical work should already be completed as agreed above.
2. We welcome the opportunity to go over the final installation and operation of the heating with the owners to ensure the correct and most economical operation. **Please do not hesitate to call us if you are unsure about any of the above**