



## ThermoSphere Screed Heating Cable



Leading the charge for electric heating

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## Cable spacing calculations

Correct spacing is essential. Ensure screed cable is spaced evenly at least 50mm apart. The fixing profile also needs equal spacing at approx 750mm.

Cable spacing (CM) = (Available floor space (m<sup>2</sup>) x 100) / Cable length (M)

### Example:

Output required: 100 W/m<sup>2</sup>

Heated area: 9m x 3.5m = 31.5m<sup>2</sup>

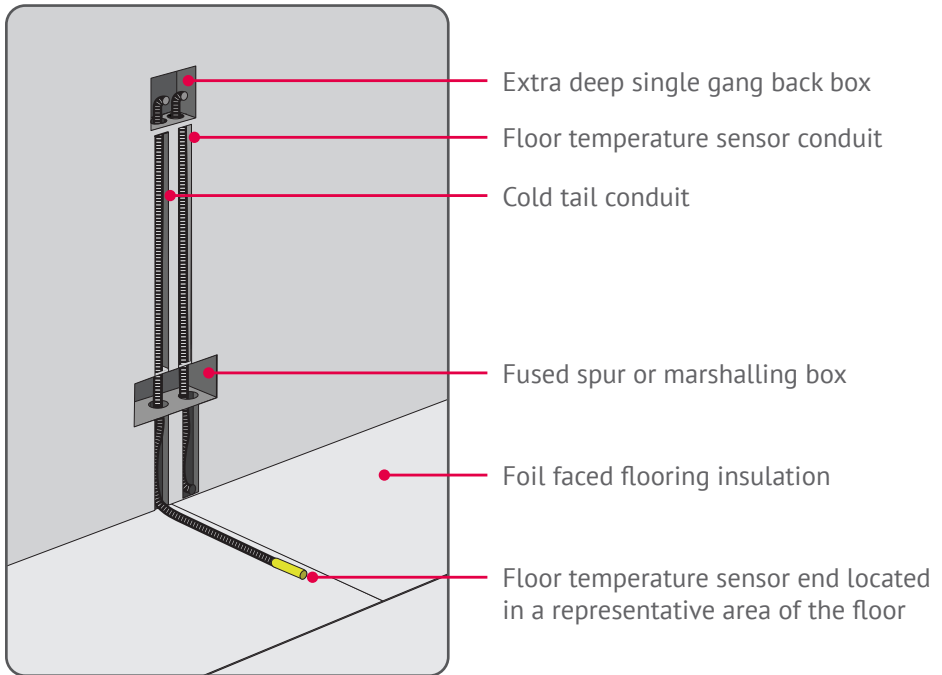
Total output: 31.5m<sup>2</sup> x 100w/m<sup>2</sup> = 3150W

Stock number: SC-183-3300 3300W 183Lm

Cable spacing: (31.5 x 100) / 183 = **17.2cm spacing**

**System load:** The power supply must be 18th Edition compliant and adequately sized for the load of your underfloor heating circuit.

## First fix



 All electrical testing and connections must be done by a competent and skilled professional electrician.

 Floor temperature sensor probes must not be located close to other temperature sources such as water pipes or electrical circuits.

 Perimeter insulation foam and damp proof membranes are usually required with screed applications - consult screed manufacturer.

## Cable testing

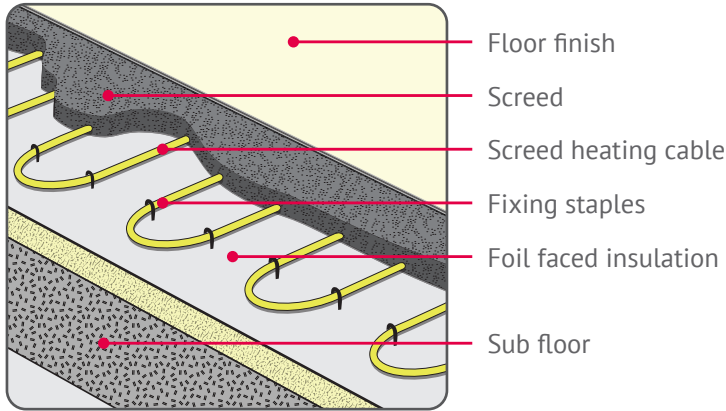
All electric underfloor heating cables and floor temperature sensor must be tested 3 times.

1. Before installation begins - To ensure the cable is in good working order.
2. After the cable has been laid - To ensure the cable has not been damaged.
3. After the screed has been applied To ensure the cable has not been damaged.

Each heating cable must be tested for it's resistance across the heating conductors and for the integrity of the insulation. Record results on p6.

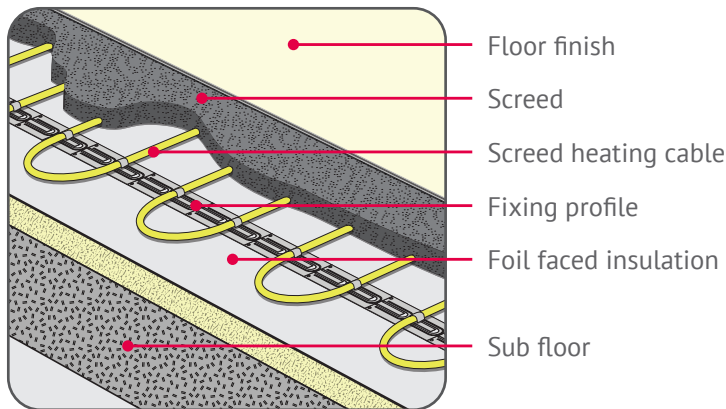
# Cable installation: Staples

When installing over foil faced insulation you can use cable staples to fix the heating cable in position. Fix staples at the ends of cable runs first and then secure the cable in place with a staple every 25cm.



# Cable installation: Fixing profile

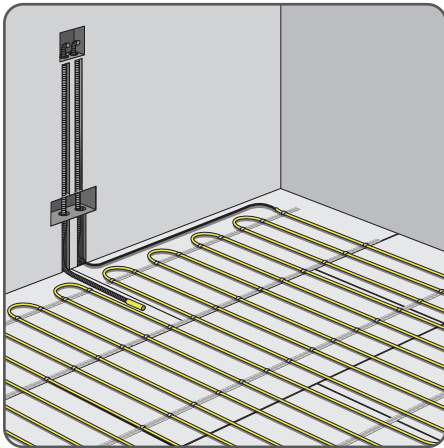
ThermoSphere screed cable is a robust cable designed for installation in the concrete slab or screed. Install fixing profile at equal spacing across the floor. Recommended spacing for fixing profile is 750mm.



 **Ensure the heating cable is secured in place with one of the recommended fixing methods above.**

# Cable layout

ThermoSphere Heating Cables must be properly tested before and after installing, as well as once the floor finish has been applied. This ensures no damage has been done prior, during or after installation.



Starting from the proposed or existing position of your thermostat begin to meander your screed cable.

The cable should run up and down the room at 90° to the fixing profile (if used).

It is essential to have an even spacing between each run of cable to avoid uneven distribution of heat.

Screed can be poured directly over the heating cable at 40-100mm depth.



**You must maintain a minimum spacing of 50mm between each run of heating cable. Failure to do so can cause damage that is not covered under the product warranty.**



**Heating cable must not touch or cross and cannot be cut, shortened or extended. This will void the product warranty.**



**Heating cable must only be installed in areas of the floor that are not covered by permanent fixtures including but not limited to walls, kitchen islands, bathroom sanitary ware, insulating floor mats/rugs or similar.**



**The entire length of the heating cable, the end termination and the hot/cold junction must be embedded within the screed layer. Tape must not be used to secure any part of the heating cable in position.**



**Do not energise the heating cable while it is on the reel. Do not energise the heating cable until it has been covered in screed and the screed has been allowed to fully cure. Testing does not require mains electricity.**

# Test results record and customer handover

Installer: The installer must complete the full test procedure and complete this page in full before giving it back to the home owner to keep in case of a warranty claim.

Homeowner: Use this information to register your Lifetime Warranty at [www.thermosphere.com](http://www.thermosphere.com). You must keep this document and proof of purchase for your records in case of a warranty claim.

Stock No	Manufacturer's Values	Before installation	After cable installation	After tile installation
<b>Resistance measurement of the electric heating cable</b>				
<b>Insulation resistance test (two conductors and earth braid)</b>				
	Greater than 499 MΩ			
<b>Floor temperature sensor test</b>				

Installer details	
<b>Name:</b>	<b>Address:</b>
<b>Company:</b>	<b>Postcode:</b>
<b>Email:</b>	<b>Part P number:</b>
<b>Phone:</b>	<b>Date &amp; Signature:</b>

# Warranty terms and conditions

Thermogroup Ltd (T/A ThermoSphere) will repair or, if necessary, at its sole discretion, replace a faulty cable, which falls within the Warranty Period and Territory specified below, subject to the warranty conditions and the warranty exclusions. Warranty Period within the United Kingdom is 25 years from the date of purchase by the consumer as defined by the Competition and Consumer Act 2010. ThermoSphere Heating Cables are covered by a Lifetime Warranty when the installation is registered online with ThermoSphere and a Lifetime Warranty Confirmation has been sent, in writing, by ThermoSphere.

Our goods come with guarantees that cannot be excluded under the UK Consumer Law. You are entitled to a replacement or refund for a major failure that occurs because of a manufacturing fault or manufacturing defect. It is the responsibility of the end user to provide proof of purchase within the Territory, to initiate a warranty claim.

## WARRANTY CONDITIONS

This warranty is applicable only for ThermoSphere Screed Heating Cables (herein referred to as "The heating system").

The heating system must be installed in accordance with the ThermoSphere Installation Instructions, to be supplied with the heating system and/or available as a digital download, and in accordance with all relevant statutory and local regulations of the Territory in which the heating system is installed.

Where a failed component or heating system is replaced under warranty, the balance of the original warranty period will remain effective. The replaced part or heating does not carry a new warranty.

Where a failed component is replaced or repaired under warranty, ThermoSphere will incur costs associated with shipping and repair at its sole discretion, if the unit is installed within the UK. If the unit is outside the UK, the associated costs are the responsibility of the owner.

Where the heating system is installed in a position that does not allow safe, ready access, the cost of accessing the site safely, including the cost of additional materials handling and/or safety equipment, shall be the owner's responsibility.

The warranty only applies to the heating cable therefore does not cover any electrical or flooring parts supplied by others that are not an integral part of the ThermoSphere heating cable, for example but not limited to; screed, tile adhesive, floor coverings, electrical accessories, thermostats and contactors.

The benefits of this warranty are in addition to other rights and remedies of the consumer under laws in relation to the goods and services to which the warranty relates.

## PROCEDURE FOR HONOURING WARRANTY

To initiate a claim for a warranty against defects, the consumer shall contact: Thermogroup Ltd T/A ThermoSphere, Bridge House, Pattenden Lane, Marden, Kent, TN12 9QJ, United Kingdom. hello@thermosphere.com. 0800 0195899.

ThermoSphere will then follow the product warranty process to assess whether the issue is covered by the warranty or not.

## WARRANTY EXCLUSIONS

Repair and replacement work will be carried out as set out in the ThermoSphere warranty. However, the following exclusions may cause the ThermoSphere warranty to become void and may incur a service charge and/or cost of parts:

Accidental damage to the heating system or any component, including: Acts of God; failure due to misuse, abuse, fire or flood damage; incorrect installation; damage as the result of transportation, removal or storage; attempts to repair the heating system other than by a ThermoSphere Accredited Service Agent, the ThermoSphere Service Department or a repairer not approved by ThermoSphere.

Where it is found there is nothing wrong with the heating system; where the complaint is related to circumstances where there is no power supply due to faulty electric; where faults are related to the electrical supply or incorrect installation and not the heating cable or heating control components; where there is a failure of electricity supply; where the supply of electricity does not comply with relevant standards, codes or acts, ThermoSphere may then charge the consumer a nominal service charge if inspection reveals no fault with the heating system.

Where the heating system or heating system component has failed directly or indirectly as a result of incorrect cable installation, overheating due to incorrect cable placement, incorrect treatment of the cold tail joint or end termination, failure to encase the entire heated section of the cable as well as the cold tail connection, end termination and element in a full bed of tile adhesive or levelling compound, insulating the heating cables from above with permanent fixtures, sanitary ware, furniture or carpets/rugs.

Where the heating system is installed and/or located in a position or fashion that does not comply with the ThermoSphere Installation Instructions or relevant statutory requirements, causing the need for major dismantling or removal of flooring cupboards, doors or walls, or use of special equipment to repair the heating system.

Subject to any rights you have under UK Consumer Law or other statutory provisions to the contrary, this warranty excludes any and all claims for damage to floors, furniture, carpets, walls, foundations, building fabric, possessions or any other consequential loss either directly or indirectly due to damage from the heating system, workmanship or other.

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