



**Longfloor**  
liquid cement screed

# Installation Guide

## Preparation

Prior to Longfloor being applied the building should be as weather tight as possible with the draught-free closure of all building openings. With the roof in place any missing glazing or door openings should be temporarily sealed using polythene, insulation or ply.

Where Longfloor is to be applied floating over insulation the boards should be installed flat to substrate and be free from excessive movement/rocking. A perimeter expansion foam strip consisting of a minimum thickness of 8mm and maximum of 15mm should be fixed around the walls (The most suitable material for this is ethafoam strip). The expansion foam strip is also required to be fixed around vertical features such as columns and pipe ducts.

Particular attention must be taken at re-entrant angles such as doorways, bays and alcoves.



The insulation should then be overlaid using minimum 500-gauge polythene overlapped by 100mm and taped, cut flush to the perimeter strip. The polythene should be laid flat with minimal ridges. For underfloor heating, please use a minimum of 1,200g single would polythene

Do not lay the product directly onto foil-backed insulation or use foil-backed tape.

**Note: 1200 Gauge or DPM Grade polythene will be required on substrata where the base moisture is likely to be > 75% RH.**

The perimeter strip's skirt can then be sealed to polythene using tape.

Underfloor heating pipes should be installed to manufacturer's spacing's and guidelines, as a minimum the pipe should be secured using either a clip rail or staple every 400mm. The pipe should be well secured to prevent floating during the application of Longfloor.

It is essential that the pipe work be pressure tested (preferably with water) prior to installation of screed, this is to ensure there are no leaks.



Finished preparation should be completely water tight to prevent leaking, polythene and other materials should be grease free and sitting flat to the insulation boards and all pipes and conduits running in the screed must be fully secured.

It is essential that the floors are clear from debris prior to any installation of the screed, as this could cause problems with the surface finish.

t: 01629 540284 e: sales@longfloor.co.uk

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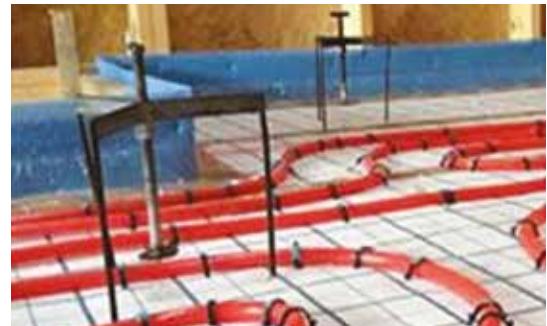


# Longfloor

## liquid cement screed

### Setting Levels

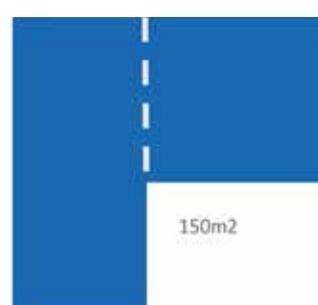
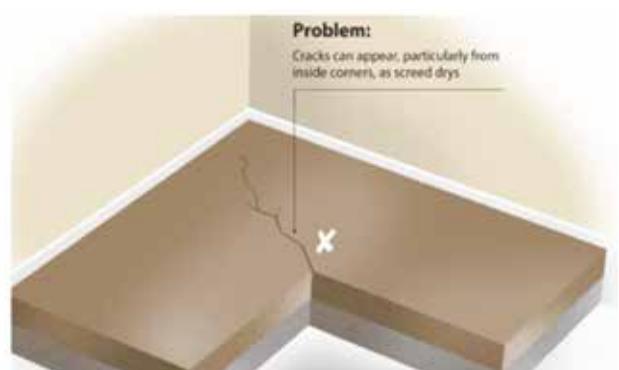
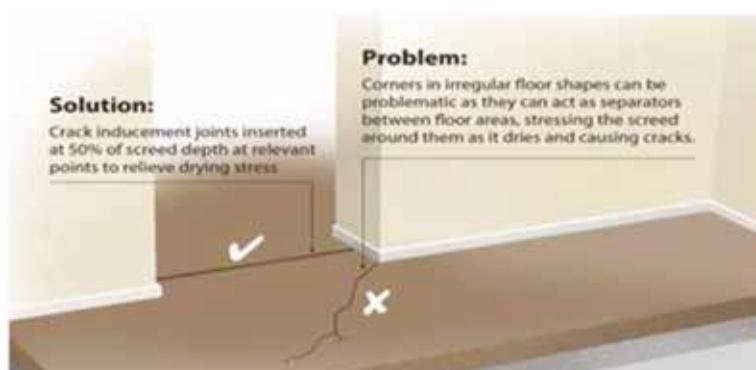
There are various ways of setting levels, these include by laser, stand/tripods or in small rooms directly from datums. We recommend using a number of screed levelling tripods positioned in various points across the room. These are adjusted so that the flat plate at the centre of the tripod is at the height that the screed will be. This is done using a datum which is transferred to each tripod using a laser level.



### Jointing

Bay Sizes - maximum bay size between 100-150m<sup>2</sup>. This is dependent on length to width ratio and shape of area to be poured. Consideration should always be made for the allowance of joints when the length to width aspect ratio exceeds 2:1, across doorway thresholds, where there are columns, pipes etc. projecting through the screed and where there is a change in the underfloor heating zone (if applicable).

Please consult with the Longfloor technical department for advice as required.



It is also necessary to note that the shape of the room can also affect the requirements for bay joints. The following guideline highlights our recommendations with regards to placement of joints in relations to the shape of the room and area screeded.

### Onsite Flow Testing

- It is important that every delivery is tested on site by the screed contractor before the screed can be installed. When the truck arrives on site, the driver should be instructed to spin the trucks drum for a minimum of 2 minutes on full revs before any testing can commence.



- The importance of testing is to make sure the material being installed is of the correct consistency and workability.
- The recommended flow range when testing should be between 260 – 280mm.

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- If the flow is below 260mm, add 5l/m<sup>3</sup> of water to increase the flow by 10mm, this can be adjusted by adding extra water within pre-determined limits set by Longfloor with further mixing in the truck before being retested and applied.
- If the flow exceeds our recommended range, we suggest that the screed should be mixed for a further 5 minutes and then retested. If then the flow still exceeds the recommended range, you must contact the Longfloor producer before any installation can commence. Always use a dry flow board when testing screed flow.

**Protect from frost. Apply the same winter working restrictions as when placing concrete, i.e. work should stop at temperatures of 5°C and falling and may resume again at 3°C and rising.**

**Do not lay at internal temperatures of 30°C and over - high temperatures can increase the chance of cracking and curling. As this may impact on the final strength of the screed.**

### Placement and Finishing

- After the screed has been tested, it can be installed by either using a liquid screed pump or a concrete pump.
- The liquid used to prime the pump hose line must be collected and not allowed to be incorporated into the screed.
- To achieve a smooth finish after installation of the Longfloor screed, use a T-bar to dapple the surface in two passes to produce a smooth finish.
- The first pass with the T-bar (dapple bar) should be heavy enough to create a small wave in front and behind the bar to remove any bubbles in the screed and to find the desired level.
- The second pass, using the T-bar you must lightly dapple across the surface at right angles (90 degrees) from the first pass to achieve the final finish.

**Dappling should be carried out no more than 15 minutes after placing.**

### Curing

- Longfloor liquid cement screed is to be sprayed only with our approved "LongCure" water-based polymer dispersion.
- A surface treated with LongCure is initially white in order to easily identify the coated areas. After drying, the coating is transparent.
- Applying LongCure must be done on fresh screed to prevent the material from drying out too quickly.
- Spray in a regular, smooth film or mist, using 150 – 200 g/m<sup>2</sup> (10 litres will cover 50 – 60 m<sup>2</sup>).
- Spraying in two crossed passes will ensure full coverage.
- Spray in higher concentrations around re-entrant corners and protrusions in the screed. Ensure a sprayer capable of producing a fine dispersion mist and that can operate at a pressure of 3 bar or above is used.
- After placing, the room in which the screed has been laid and cured should be sealed therefore for a minimum of 24 hours, the room will be suitable for light foot traffic after this period and can be worked on after 72 hours.

**The floor should not be subjected to severe draughts, direct sunlight or heating for the first 24-48 hours to prevent rapid drying during this important early stage.**

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## Drying

- The ambient conditions must be suitable for the drying of the screed with low air humidity (preferably 60% RH or less) and good ventilation. Before floor finishes are laid, the moisture content of the screed should be ascertained to be at, or below the required level.
- Longfloor will be suitable to receive non-moisture sensitive floor finishes between 7-14 days. In ideal conditions (20°C and 65% relative humidity) the screed will have achieved 75% R/H (0.5% moisture) at 21 days.
- Forced drying of Longfloor is possible if required: after seven days heaters and dehumidifiers may be used to improve drying conditions. Underfloor heating can be commissioned after 10-days and can also be used to speed up the drying time.

## References

- Longfloor is the subject of UK Patent Application Number 1808868.2
- Specification (To BS EN 13813: 2002)
- Longfloor is manufactured in a factory environment that complies with all aspects of ISO 9001
- Longfloor should be used and installed in accordance with the recommendations given in the Code of Practice: BS 8204.
- Longfloor binder contains 95% recycled content as verified under ISO 14021.

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