

# Installation Guide

## Preparation

The building should be fully weather proof before pouring commences. The screed should only be laid when the internal air temperature is between 5°C and 30°C. Longfloor IntegraCure should be used and installed in accordance with the recommendations given in the Code of Practice: BS 8204.

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.

**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.

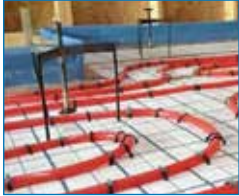
Underfloor heating pipes should be installed to manufacturer's spacing's and guidelines, as a minimum the pipe should be secured using either a clip rail or staple every 400mm. The pipe should be well secured to prevent floating during the application of Longfloor.

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 and debris prior to any installation of the screed, as this could cause problems with the surface finish.



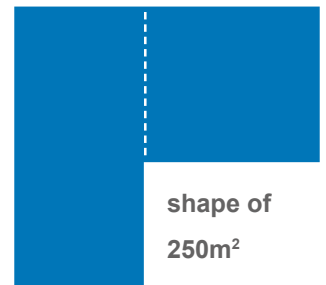
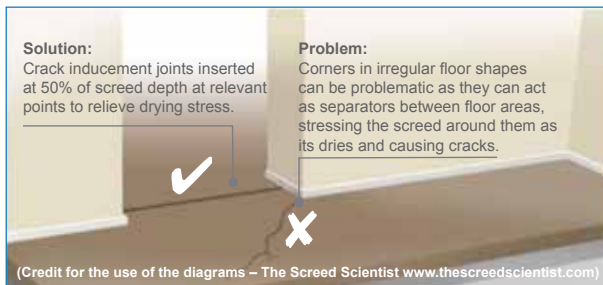
### Setting Levels

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 center of the tripod is at the height that the screed will be installed. This is done using a datum which is transferred to each tripod using a laser level.

### Jointing

Bay Sizes - maximum bay size between 200-250m<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 4:1, across doorway thresholds and 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.**

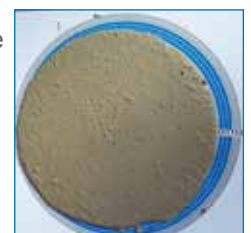


It is also necessary to note that the shape of the room can also affect the requirements for bay joints. The following guideline highlights our recommendations with regards to placement of joints in relations to the shape of the room and area screeded.

## Installation

### 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.
- If the flow is below 260mm, 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.



**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.**

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Longfloor is the registered trade name of Longfloor binder for a liquid cement screed.

Issue No: 1

Date: May 2021

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## Placement and Finishing

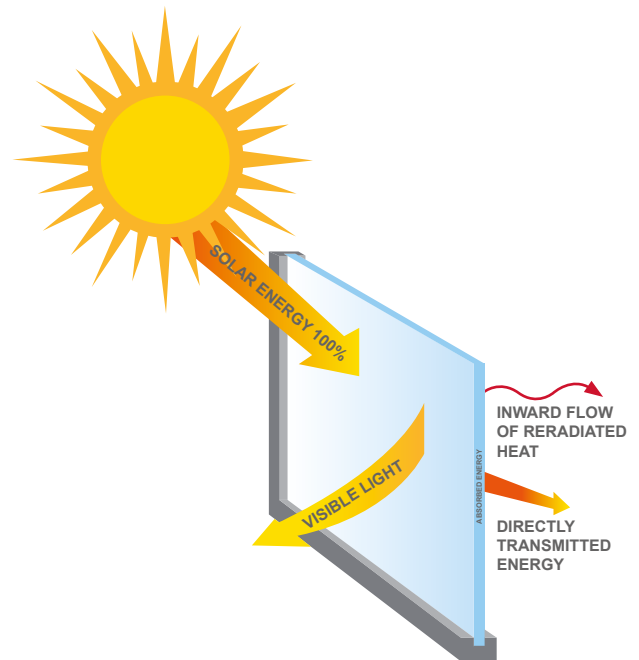
- After the screed has been tested, it can be installed by either using a liquid screed pump or a concrete pump.
- To achieve a smooth finish after installation of the Longfloor screed, use a T-bar to dapple the surface in two passes to produce a smooth finish.
- The first pass with the T-bar (dapple 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 IntegraCure liquid cement screed has an integral curing added during the manufacturing stage of the binder this controls the early age shrinkage which happens in the first 24-48hrs of the screed. This negates the need to apply a curing agent to the surface of the screed after installations.
- After placing, the room in which the screed has been laid 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.
- It is always advised that all glazing should be covered to protect the screed and to reduce the risk of potential problems arising due to solar heat gain.
- Solar Heat Gain - this is where solar radiation is admitted through a window, door or skylight – either transmitted directly and/or absorbed, and subsequently releases extra heat inside a building. The heat absorbed in the screed can cause long term shrinkage, cracking and curling.

**During the early stages of the drying process, the screed should not be subjected to severe draughts which can cause rapid drying which may result in the screed shrinking and cracks to form.**



## 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.
- For illustration purposes only, some images are courtesy of [www.screedscientist.com](http://www.screedscientist.com)