

LITECAST INSTALLATION GUIDELINES

Beam and Concrete Block

We recommend that these instructions are read in full prior to installation, this will ensure that installation is made easier and waste reduced to a minimum. **Installation should be carried out in accordance with the Code of Practice for Safe Erection of Precast Concrete Flooring and the design drawing** (attached to the delivery note).

The ground beneath the floor should be free of topsoil and vegetation. No over-site concrete or sand blinding is necessary. Typically a minimum void of 150mm (225mm in heavy clay soils) must be maintained between underside of the floor beam and the ground surface. This should be confirmed with local authority building control.

Cross flow ventilation should be provided, recommended positioning of vent & airbricks shown on the drawing (V).

Floor joists/beams are supplied either 150mm or 225mm depth.

Floor joists/beams should be lifted as close to each end as possible. Forklift trucks can be used for lifting, forks should be placed at least one metre apart and lift 1 row at any one time, care should be taken to avoid any sudden movement that could result in floor joists/beams being damaged. **It is important that floor joists/beams be handled and stacked the right way at all times – (see our stacking guide overleaf).** All floor joists/beams will have an inherent upward camber (upward bow).

A damp proof course should be placed over all bearings prior to laying a ground floor. All bearings must be level, so that floor joist/beams are vertical, the shoulders of the floor joists/beams will then provide a nominal 20mm bearing for the blocks. Care should be taken to provide floor joists/beams with a 90mm bearing on masonry and 75mm on steel at each end and are normally supported by the inner skin of the cavity walls. Internal bearings are taken on internal 100mm brick/block walls by staggering the joist/beam layout. Floor joist/beams should be set out bay by bay.

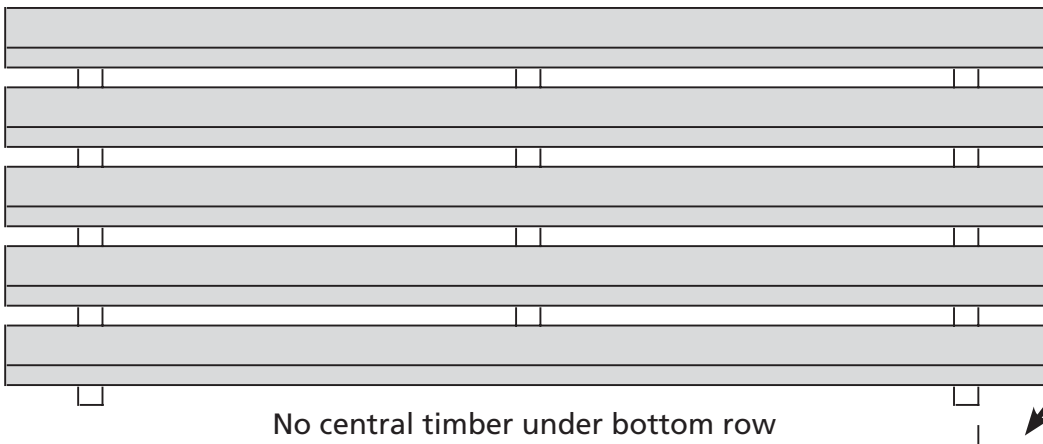
'Start' points, as indicated on our drawings, are normally under partitions or at other crucial positions and should be adhered to. **It is recommended that infill blocks be placed between the ends of the floor joists/beams correctly to enable the remaining blocks to be placed.** Slip bricks are to be used to infill the gap between the infill blocks and the dpc, these should be bedded in mortar. Vertical holes for the passage of services can be accommodated between floor joists/beams by omitting infill blocks and making good after. Infill blocks should be in accordance with BSEN 15037-2 suitable for flooring, **care should be taken to ensure that the density of blocks supplied complies with the design criteria. Where blocks intersect with load bearing walls they must be of satisfactory strength (as specified by your engineer).**

To seal the floor, the whole floor area should be grouted with a nominal 6:1 sharp sand/cement mix as soon as possible after the fixing of floor joist/beam and blocks are completed. This should be done by brushing the grout over the floor with a stiff broom (after the surface has been well 'wetted') so that the grout penetrates into the joints (block to block & block to joist/beam) to provide a rigid construction. Garages **must not** be grouted (due to composite action). Where no membrane is used, a minimum of 50mm thick grade C20 concrete screed must be used with 1 layer of A98/A142 reinforcing mesh. Where a membrane is used, a minimum of 75mm thick grade C20 concrete with 1 layer of A98/A142 reinforcement mesh is required.

If you experience difficulty installing the floor, ring the **Litecast Helpline 02476356161.**

STACKING GUIDELINES

Timber bearers should be placed on firm level ground. There must be no central timber on the bottom row. Incorrect stacking will result in excessive camber and possibly broken beams.



CORRECT

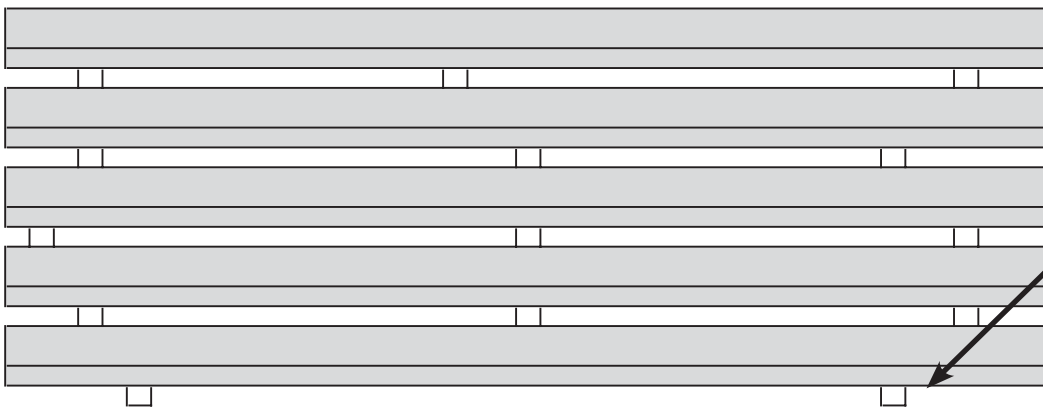


Beams of similar length

Timber supports in line

Timbers positioned no more than 200mm (8") from the end

No central timber under bottom row



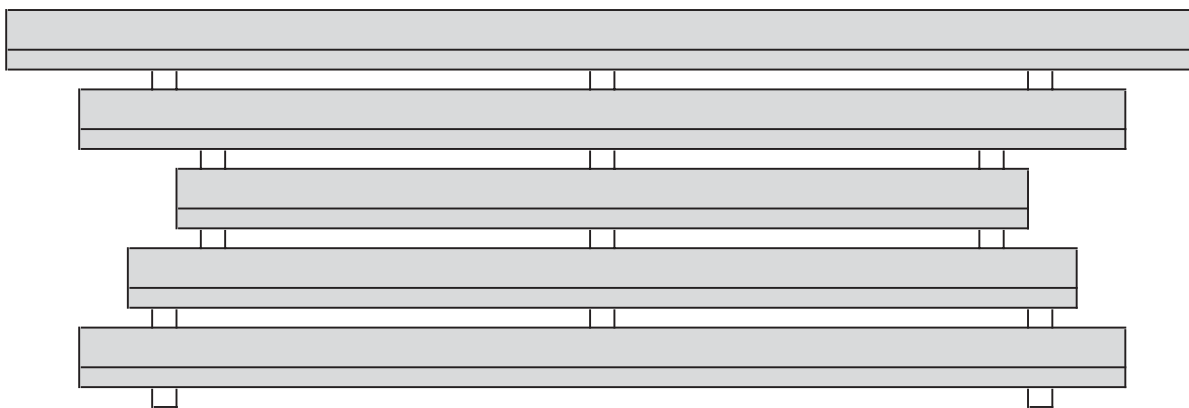
INCORRECT



Timber supports not in line

These beams will crack at this point

No central timber under bottom row



INCORRECT

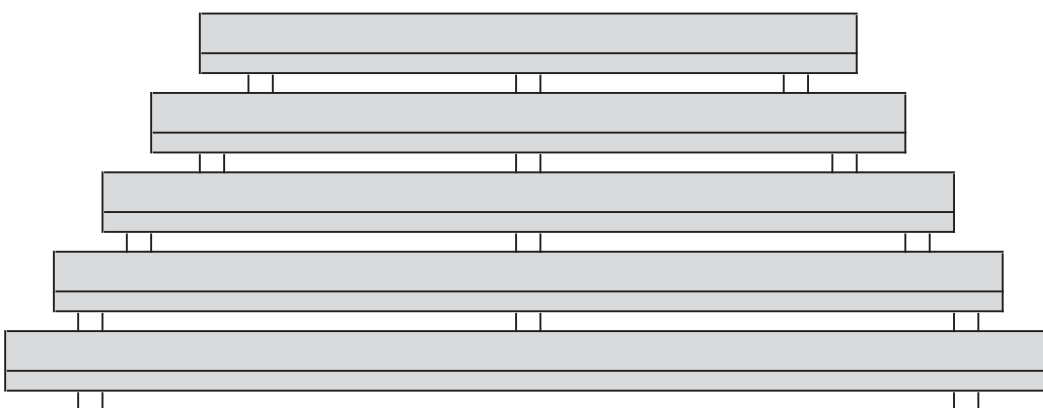


Longer beams overhanging beams below

Danger to pedestrians

Abnormal loadings on beams below

No central timber under bottom row



CORRECT



Beams stacked in pyramid fashion

No central timber under bottom row