

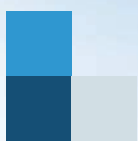


## Beam and Block Flooring



### Benefits

- Easy to handle, quick to install
- Simple all weather form of construction
- Provides an immediate working platform
- Draught proof, rot proof and fire resistant
- Problems caused by ground movement are eliminated
- Good thermal insulation
- Beams available up to 7.5 m, 175 mm deep



**LONGLEY  
CONCRETE**





# Beam and Block Flooring

The Longley Concrete Beam and Block Flooring system is quick and easy to install and comprises of 175 mm deep, prestressed concrete beams installed with 100 mm deep building blocks laid between them.

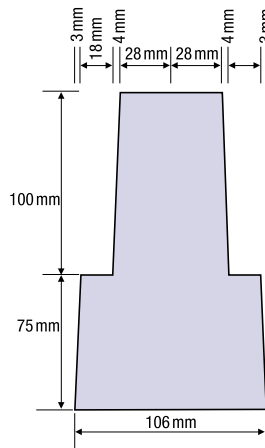
## Beam Details

Longley's Beam & Block ground floors can be installed with minimum fuss and maximum effectiveness. They are quick to install and provide an immediate, safe working platform that is rot proof and fire resistant. Problems associated with frost damage, ground movement or heave and shrinkage are completely eliminated and they are also squeak free.

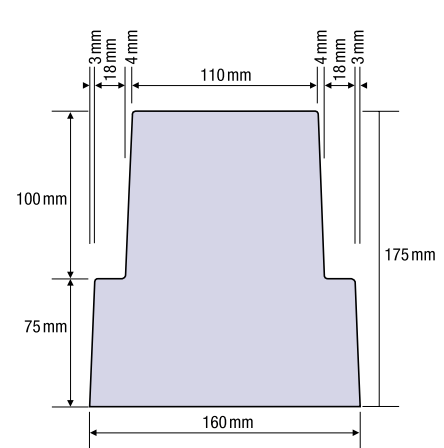
Services passing through the floor can easily be accommodated between the beams by removing blocks after final positioning of the services.

Longley floor beams are available in two widths – both at 175 mm deep.

175 mm Standard Beam Section



175 mm Widened Beam Section



## Prestressed Beams

Our beams are manufactured with C60 (60N/mm<sup>2</sup> at 28 days) concrete, prestressed by means of 5 mm indented steel wire. Longley beams are manufactured in fixed moulds within an enclosed factory environment, giving them a superior finish and dimensional tolerance.





## Ground Floors

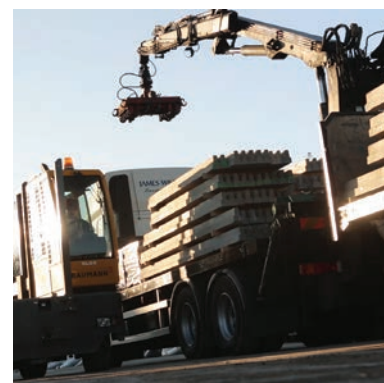
A minimum void of 150 mm must be provided between the soffit of the floor and the solum and a continuous damp proof course must be laid beneath the beams.

Infill blocks to be aerated, aggregate or concrete, 440 x 215 x 100 mm. Minimum compressive strength of 3.5 N/mm<sup>2</sup> or 7.0 N/mm<sup>2</sup> with a traverse load capacity of 3.5 kN on a 420 mm span.

For garage floor applications, blocks with 7.0N/mm<sup>2</sup> compressive strength should be used.

To seal the joints, the whole floor should be grouted with a nominal 3:1 sharp sand/cement mix as soon as possible after fixing the floor joists and blocks. Brush the grout over the floor with a stiff broom after the surface has been well 'wetted'. Ensure the grout penetrates into the joints to provide a rigid construction.

Floor finishes applied directly to the grouted floor can be: chipboard/screed on insulation, screed or asphalt.



## Upper Floors

Infill blocks to be aggregate or concrete, 440 x 215 x 100 mm. Minimum compressive strength of 3.5 N/mm<sup>2</sup> or 7.0 N/mm<sup>2</sup> with a transverse load capacity of 3.5 kN on a 420 mm span.

When the floor separates a dwelling from another dwelling, it has to comply with Building Regulations Approved Document E. This can be done by building to Robust Detail E-FC-6 or E-FC-7.

A plasterboard ceiling can be easily installed using metal clips, 50 x 50 mm timber battens and plasterboard; this inevitably increases the fire resistance. See [www.longley.uk.com](http://www.longley.uk.com) for ceiling clip details.

The floor when constructed with a plasterboard ceiling provides up to 1 hour fire resistance. The widened beam constructed as above provides up to 1 1/2 hour fire resistance.

Where blocks are built into loadbearing walls the compressive strength must not be less than that of the blocks used in the wall construction.  
*(applicable to both ground and upper floors)*

## Ancillary Products

Longley Concrete Group stock a large range of ancillaries to compliment both ground and upper floors. See more details at [www.longley.uk.com](http://www.longley.uk.com)

## Coursing Details

A selection of coursing details to accommodate our 175 mm deep floor beams can be found at [www.longley.uk.com](http://www.longley.uk.com)



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