TECHNICAL NOTE – DECEMBER 2023

LOADING OF JETFLOOR WITH BRICKS & BLOCKS DURING CONSTRUCTION

BISON PRECAST
a Forterra brand

REQUIREMENTS FOR LOADING OUT JETFLOOR WITH BLOCKWORK DURING CONSTRUCTION

The following data sheet is intended to provide general advice where packs of bricks and blocks are required to be supported off Jetfloor during construction.

When placing packs of material, the following conditions shall be met:

- Only stack single height (no multiple stacking).
- Packs to have a maximum edge distance from the wall of 0.5m.
- Packs to have minimum 650mm distance between them.

The following table identifies the capacity of Forterra Jetfloor to support packs of bricks and blocks for two load cases and incorporates data for 72No. Block packs (4.9kN & 10kN), 90No. Block packs (6.2kN & 12.8kN) and 600No. bricks weighing 1.95kg each (11.5kN).

- Load case one is when one pack is stacked on one end only of the beams.
- Load case two is when one pack is stacked on either end of the beams.

The load capacity table is based on the self-weight of the floor system plus the pack/s of material and incorporates a construction load of 0.75kN/m^2. It has been assumed that finishes will be 80mm insulation and 70mm structural topping.

Please refer to *Figure 1* for clarification of the two load cases and conditions relating to the positioning of the packs.

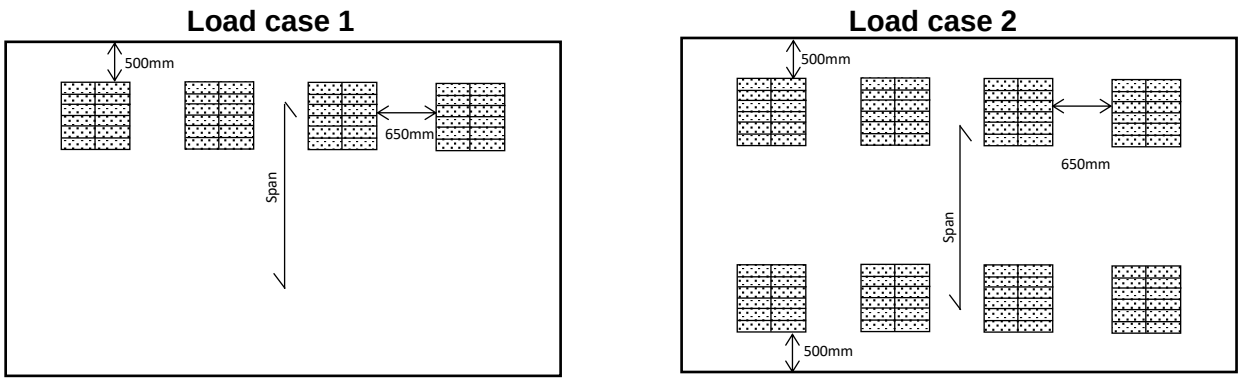

Figure 1: Locations where packs of material can be placed

If mortar tubs are to be used, then these can replace a pack of blocks provided that the weight is equivalent or less.

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To avoid the potential risk of the concrete topping lifting local to doorways it is our recommendation that packs of blocks are not placed either side of the door as shown in *Figure 2*.

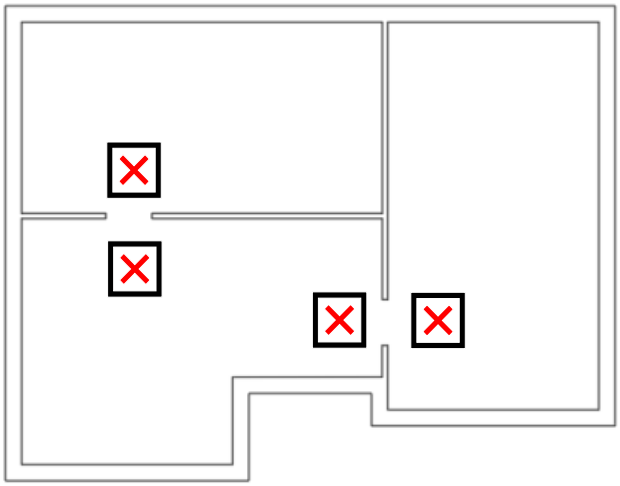

Figure 2 – Location of blocks local to doorways

Table 1 – maximum spans for 72 pack size (1500kg/m^3)

Load case 1 - 72 blocks - medium dense - 1500kg/m^3		
Beam	Infill Blocks	Maximum span (m)
BT02	W/W	4.75
BT02	W/N	5.15
BT02	N/N	5.55
RD09	W/W	6.3
RD09	W/N	6.65
RD09	N/N	6.8
T008	W/W	7.65
T008	W/N	7.95
T008	N/N	7.95

Load case 2 - 72 blocks - medium dense - 1500kg/m^3		
Beam	Infill Blocks	Maximum span (m)
BT02	W/W	4.3
BT02	W/N	4.75
BT02	N/N	5.25
RD09	W/W	6.0
RD09	W/N	6.4
RD09	N/N	6.8
T008	W/W	7.45
T008	W/N	7.95
T008	N/N	7.95

Legend for infill blocks
W/W – wide block either side of the beam, i.e., maximum beam centres
W/N – wide block one side of a beam and a narrow block the other side
N/N – narrow block either side of the beam, i.e., minimum beam centres

Table 2 – maximum spans for 90 pack size (1500kg/m³)

Load case 1 - 90 blocks - medium dense - 1500kg/m³		
Beam	Infill Blocks	Maximum span (m)
BT02	W/W	Not possible
BT02	W/N	5.05
BT02	N/N	5.5
RD09	W/W	6.2
RD09	W/N	6.6
RD09	N/N	6.8
T008	W/W	Not possible
T008	W/N	7.95
T008	N/N	7.95

Load case 2 - 90 blocks - medium dense - 1500kg/m³		
Beam	Infill Blocks	Maximum span (m)
BT02	W/W	Not possible
BT02	W/N	4.55
BT02	N/N	5.1
RD09	W/W	5.8
RD09	W/N	6.25
RD09	N/N	6.65
T008	W/W	Not possible
T008	W/N	7.85
T008	N/N	7.95

Table 3 – maximum spans for 72 pack size (730kg/m³)

Load case 1 - 72 blocks - Thermalite - 730kg/m³		
Beam	Infill Blocks	Maximum span (m)
BT02	W/W	5.0
BT02	W/N	5.4
BT02	N/N	5.55
RD09	W/W	6.45
RD09	W/N	6.65
RD09	N/N	6.8
T008	W/W	7.75
T008	W/N	7.95
T008	N/N	7.95

Load case 2 - 72 blocks - Thermalite - 730kg/m³		
Beam	Infill Blocks	Maximum span (m)
BT02	W/W	4.8
BT02	W/N	5.2
BT02	N/N	5.55
RD09	W/W	6.3
RD09	W/N	6.65
RD09	N/N	6.75
T008	W/W	7.7
T008	W/N	7.95
T008	N/N	7.95

Legend for infill blocks
W/W – wide block either side of the beam, i.e., maximum beam centres
W/N – wide block one side of a beam and a narrow block the other side
N/N – narrow block either side of the beam, i.e., minimum beam centres

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Table 4 – maximum spans for 90 pack size (730kg/m³)

Load case 1 - 90 blocks - Thermalite - 730kg/m³		
Beam	Infill Blocks	Maximum span (m)
BT02	W/W	4.95
BT02	W/N	5.35
BT02	N/N	5.55
RD09	W/W	6.4
RD09	W/N	6.65
RD09	N/N	6.8
T008	W/W	7.75
T008	W/N	7.95
T008	N/N	7.95

Load case 2 - 90 blocks - Thermalite - 730kg/m³		
Beam	Infill Blocks	Maximum span (m)
BT02	W/W	4.7
BT02	W/N	5.1
BT02	N/N	5.5
RD09	W/W	6.2
RD09	W/N	6.6
RD09	N/N	6.8
T008	W/W	7.65
T008	W/N	7.95
T008	N/N	7.95

Table 5 – maximum spans for 600 brick pack size (1.95kg/brick = 1170kg pack weight)

Load case 1 - 72 blocks - medium dense - 1500kg/m³		
Beam	Infill Blocks	Maximum span (m)
BT02	W/W	4.65
BT02	W/N	5.1
BT02	N/N	5.5
RD09	W/W	6.2
RD09	W/N	6.6
RD09	N/N	6.8
T008	W/W	7.65
T008	W/N	7.95
T008	N/N	7.95

Load case 2 - 72 blocks - medium dense - 1500kg/m³		
Beam	Infill Blocks	Maximum span (m)
BT02	W/W	4.15
BT02	W/N	4.6
BT02	N/N	5.15
RD09	W/W	5.85
RD09	W/N	6.3
RD09	N/N	6.7
T008	W/W	7.35
T008	W/N	7.9
T008	N/N	7.95

Legend for infill blocks
W/W – wide block either side of the beam, i.e., maximum beam centres
W/N – wide block one side of a beam and a narrow block the other side
N/N – narrow block either side of the beam, i.e., minimum beam centres