

Loading Out JJI-Joist Floors

Introduction

This Technical Bulletin provides details on the amount of construction materials that may be placed on JJI-Joist floors during the construction process.

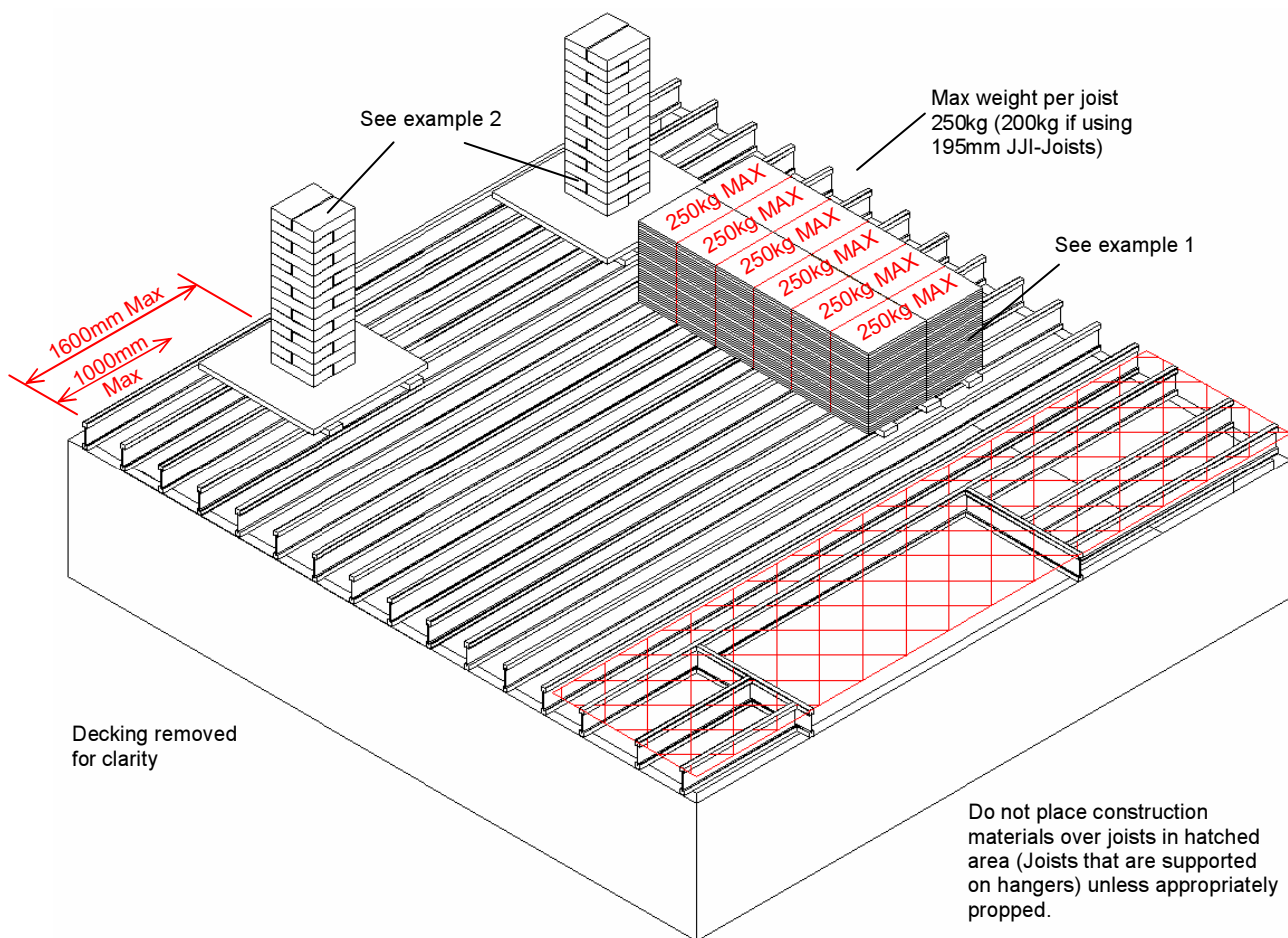
Maximum Load and Distance Rules

Once a JJI-Joist floor has been fully decked, construction materials may be placed on the floor provided that the overall weight of material to be placed on a single joist does not exceed 250kg (200kg for 195mm deep joists). To ensure that the weight is distributed in a safe manner we recommend that timber bearers (perpendicular to joist run) or a standard pallet (1200x1200) are placed under the construction materials. Bearers must extend over at least 2 joists.

- The maximum distance from the edge of the floor to the closest edge of the construction materials - 1000mm
- The maximum distance from the edge of the floor to the centre line of construction materials - 1600mm
- No construction materials should be placed onto an area where joists are supported on hangers without adequate propping.
- No construction materials should be placed on cantilevered joists.

It is not feasible to provide specific details and quantities for all types of construction materials. However the densities of common blocks and board construction materials can be found on pages 2 & 3 of this Technical Bulletin. The maximum number of blocks & boards that may be placed on the joists during the construction period can be found by following the example calculations provided on page 3. The maximum weight per joist of 200kg/250kg must be adhered to at all times.

Material densities for common products are provided on pages 2/3 for your convenience.



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Manufacturer	Product	Classification	Density (kg/m ³)
Plasmor	Fibolite	Ultra-lightweight	850-950
	Aglite	Lightweight	1050-1150
	Plascon	Heavyweight	1950
Hanson	Thermalite	Lightweight	770
	Fenlite	Medium Weight	1350
	Evalast	Heavyweight	1990
Humberside	Xtralite	Ultra-Lightweight	900
	-	Lightweight	1360
	-	Heavyweight	2000
Interfuse	Interlyte-Ultra	Ultra-Lightweight	850-900
	Interlyte	Light-Medium Weight	1250-1475
	Intercrete	Heavyweight	1850-2000
Tarmac	Durox Supabloc	Ultra-Lightweight	460
	Hemlite	Light-Medium Weight	1360-1480
	Topcrete	Heavyweight	1900-2000
H+H Celcon	Standard Block	Lightweight	600
	Hi-Ten	Lightweight	750
Broom Bros	Pumlite	Ultra-Lightweight	1000-1100
	Donlite	Lightweight	1375-1475
	Doncrete	Heavyweight	1950-2050

Table 1. Blockwork Density Selection

Manufacturer	Product	Thickness (mm)	Density (kg/m ³)
Knauf	Wallboard	9.5	652
		15.0	667
	Vapoursheild	9.5	652
		15.0	667
LaFarge	Gtec Base Board	9.5	256
	Gtec Contour Board	6.0	984
	Gtec Standard	9.5	664
		15.0	681
British Gypsum	Gyproc Wallboard	9.5	663
		15.0	653
	Gyproc Duplex	15.0	653
Egger (UK) Ltd	Weyroc E1 P5	18.0	695
		22.0	665
Puhos	Puhos P5	22.0	700
	WeatherDek	18.0-22.0	720-740
Norbord	Caberdek	18.0-22.0	600-690

Table 2. Plasterboard/Floorboard Density Selection

Example 1

Floorboards - Puhos P5 Board

Product Density - 700kg/m³

Product Size - 600mm x 2400mm x 22mm

Joist Centres - 400mm

Area of Board per Joist - $0.6 \times 0.4 = 0.24\text{m}^2$

Mass per Joist = $(0.24 \times 0.022) \times 700 = 3.7\text{kg}$

Boards per Stack = $250 / 3.7 = 67$ boards (or 2 stacks of 33 boards side by side)

Example 2

Blocks - Hanson Fenlite

Product Density - 1350kg/m³

Product Size - 100mm x 215mm x 440mm

Joist Centres - 400mm

Length of Bearer - 1200mm (bearer covers 3 joists)

Mass per Block - $(0.1 \times 0.215 \times 0.440) \times 1350 = 12.8\text{kg}$

Blocks per Joist = $250 / 12.8 = 19$ blocks

Blocks per Stack = $3 \times 19 = 57$ blocks (or 28 blocks at each end)