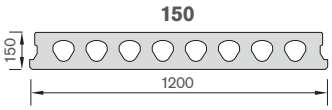
HOLLOWCORE LOAD-SPAN TABLES

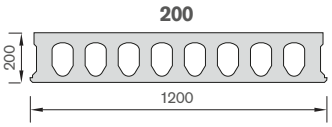
Technical Datasheet

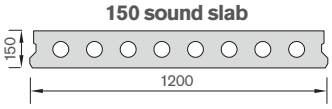
FORTERRA

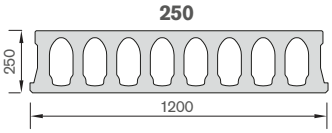
Largely because of fast on-site construction, Bison hollowcore floors are one of the most economic flooring solutions for the widest variety of situations including masonry, steel and concrete structures for residential, retail, commercial and industrial buildings. The table is given as a guide only. When using maximum spans, consideration must be given to the effect of camber and deflection on partitions or finishes. Further advice is available on request.

Hollowcore Load/Span - Non Composite with 2.1kN/m² allowance for finishes.









BISON REF	UNIT DEPTH (MM)	SLAB SELF WEIGHT KN/M²	SPANS INDICATED BELOW ALLOW FOR CHARACTERISTIC IMPOSED LOAD PLUS SELF WEIGHT PLUS 2.1KN/M² FOR FINISHES							
			CHARACTERISTIC IMPOSED LOAD KN/M²							
			1.5	2.0	2.5	3	4	5	5	7.5
			Clear span (m)							
150	150	2.47	7.40	7.35	7.35	7.00	6.65	6.35	5.75	5.00
150 (sound slab)	150	3.02	7.35	7.35	7.35	7.00	6.70	6.35	5.95	5.20
200	200	3.10	8.85	8.85	8.80	8.80	8.65	8.30	7.70	6.70
250	250	3.47	9.75	9.75	9.75	9.75	9.60	9.10	8.90	7.95
			ψ_1 =0.7	ψ_2 =0.5	ψ_2 =0.3	ψ_0 =0.7	ψ_1 =0.7	ψ_2 =0.6	ψ_0 =1.0	ψ_1 =0.9
			Category A/B - Domestic, residential / office areas			Category C/D - Congregation areas /shopping			Category E - Storage areas	
			FLOOR CATEGORY OF USE (FROM BS EN 1991-1-1:2002), USED FOR DETERMINING THE COMBINATION OF ACTIONS FACTORS							

Note 1

The maximum clear spans shown in the table above are based on:

- 1 hour fire rating
- XC1 exposure class (internal upper floor use)
- Minimum 4.0Hz Natural Frequency
- Non-brittle floor finishes

The clear span lengths make no allowance for service penetrations through the floor or additional concentrated loads from items such as masonry partitions etc. Such additions may reduce the possible clear span.

Note 2

The 1.50kN/m² live load in the table above is shown to be category A residential use, but may also be applied to category H roof use.

The 3.00kN/m² live load in the table above is shown to be category C congregational use which will also apply to classroom use.

Note 3

Bison Precast can also offer:

- The manufacture of solid prestressed planks with depths of 100mm, 150mm, & 200m.
- Floor designs to act compositely with a directly applied structural concrete topping finish over (topping supplied and placed by others than, with no cost to Bison).

We do not provide load span tables or generic guidance for these items due to their bespoke nature, so please contact **technicalquery@bison.co.uk** for assistance with enquiries relating to this, or any other technical matters you may have.

For commercial/quotation enquiries and timescales please contact our estimating services at **concrete@bison.co.uk**.

BISON PRECAST

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