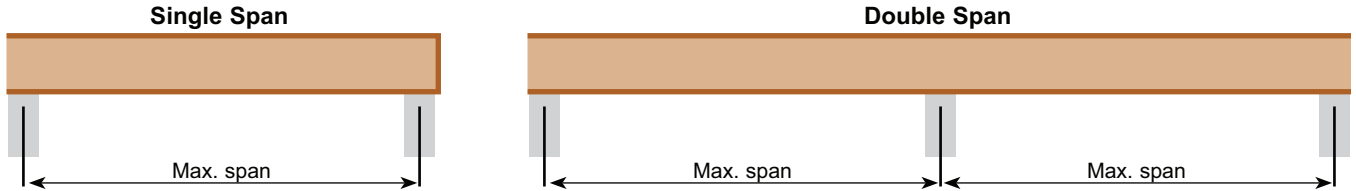


Residential Floor Span Tables

The table below represents maximum spans for a range of floor performance levels for joists in a single span application. Multispanning a joist over intermediate supports can result in improved

performance or the ability to span further. Please refer to BC CALC® or Boise Engineered Wood Products engineering department for further details.



Joist Depth (mm)	BCI® Joist Type	Single Span	Maximum spans (m) for domestic construction ^{1, 2}											
			Code Recommended ⁴				NHBC Recommended ⁵				100% Stiffer than Code ⁶			
			600c/c	480c/c	400c/c	300c/c	600c/c	480c/c	400c/c	300c/c	600c/c	480c/c	400c/c	300c/c
241mm	5000s	Single Span	4.015	4.352	4.645	5.015	4.011	4.256	4.466	4.817	3.103	3.376	3.613	4.015
	6000s	Single Span	4.198	4.551	4.808	5.185	4.144	4.398	4.616	4.979	3.239	3.527	3.776	4.198
	6500s	Single Span	4.337	4.694	4.926	5.313	4.244	4.505	4.729	5.103	3.343	3.641	3.900	4.337
	60s	Single Span	4.547	4.861	5.104	5.508	4.392	4.665	4.898	5.288	3.495	3.810	4.084	4.547
	90s	Single Span	5.037	5.353	5.623	6.074	4.828	5.133	5.394	5.829	3.963	4.330	4.647	5.037
302mm	5000s	Single Span	4.749	5.038	5.286	5.700	4.558	4.837	5.076	5.475	3.698	4.022	4.303	4.749
	6000s	Single Span	4.904	5.204	5.461	5.890	4.706	4.995	5.243	5.657	3.859	4.199	4.494	4.904
	6500s	Single Span	5.023	5.331	5.595	6.036	4.819	5.116	5.371	5.796	3.984	4.336	4.642	5.023
	60s	Single Span	5.237	5.560	5.836	6.298	5.024	5.335	5.602	6.047	4.214	4.589	4.845	5.237
	90s	Single Span	5.757	6.117	6.426	6.940	5.519	5.866	6.164	6.660	4.748	5.056	5.319	5.757
356mm	5000s	Single Span	5.206	5.524	5.796	6.250	4.996	5.303	5.565	6.003	4.196	4.561	4.821	5.206
	6000s	Single Span	5.371	5.700	5.982	6.452	5.154	5.471	5.743	6.196	4.374	4.732	4.972	5.371
	6500s	Single Span	5.501	5.839	6.128	6.612	5.278	5.603	5.883	6.349	4.515	4.844	5.090	5.501
	60s	Single Span	5.764	6.119	6.424	6.931	5.530	5.872	6.165	6.655	4.772	5.074	5.333	5.764
	90s	Single Span	6.330	6.726	7.065	7.631	6.069	6.451	6.778	7.323	5.223	5.560	5.849	6.330
406mm	6000s	Single Span	5.777	6.131	6.435	6.941	5.543	5.884	6.177	6.665	4.788	5.089	5.347	5.777
	6500s	Single Span	5.921	6.285	6.597	7.118	5.680	6.031	6.332	6.834	4.903	5.213	5.478	5.921
	60s	Single Span	6.216	6.599	6.927	7.474	5.964	6.333	6.649	7.177	5.147	5.473	5.752	6.216
	90s	Single Span	6.822	7.248	7.613	8.222	6.540	6.951	7.304	7.891	5.629	5.992	6.304	6.822

Notes :

- ¹ All spans quoted are "engineered spans" measured between centres of bearing points. Minimum bearing lengths required are 45mm at joist ends and 89mm at intermediate supports.
- ² All spans quoted are for standard domestic loading (including allowance for internal partitions) – 0.75kN/m² dead loading; 1.5kN/m² imposed loading.
- ³ Spans quoted for double span joists are maximum achievable values assuming both spans are equal. Where joists are continuous over two unequal spans, smaller values will apply, intermediate between the single and double-span values quoted, depending upon the relative proportions of the spans involved.
- ⁴ Minimum floor stiffness recommended in BS5268-2:2002 – dictated by maximum allowable floor deflection = 0.3% of the span up to a maximum of 14mm.
- ⁵ Minimum floor stiffness recommended by NHBC – dictated by maximum floor deflection = 0.3% of the span up to a maximum of 12mm.
- ⁶ 100% higher floor stiffness than recommended in BS5268-2:2002 – dictated by maximum floor deflection = 0.15% of the span up to a maximum of 7mm.
- ⁷ These spans are stress controlled. All other spans are deflection controlled.