

Seasoned Softwood Span Tables: Domestic Internal Floor Joists Not Supporting Roof Loads

Seasoned softwood floor joists are the most popular choice for house construction in Australia for a number of important reasons:

- Economical and readily available in lengths of up to 6 m. (For spans over 6 m, check with your supplier)
- Dressed or “reeded” finish for ease of handling
- Seasoned to minimise movement of the installed timber
- A great base for popular timber appearance flooring
- Readily available preservative treated against borers and termites.

The following table provides an easy comparison of popular seasoned softwood grades and sizes for joists in residential domestic internal floor applications.

Internal Floor Joist Spans for 450 mm and 600 mm Joist Spacing

Single Span

Size D×B (mm)	Joist Spacing 450 mm			Joist Spacing 600 mm		
	F5	F7	MGP 10	F5	F7	MGP 10
90×35	NS	1000	NS	NS	NS	NS
90×45	1000	1400	1500	NS	1100	1200
120×35	1600	1800	1900	1300	1700	1500
120×45	1900	2000	2100	1700	1800	2000
140×35	2000	2100	2300	1900	2000	2100
140×45	2200	2300	2600	2100	2200	2400
190×35	2900	3000	3300	2600	2800	3000
190×45	3100	3300	3600	2900	3000	3300
240×35	3800	4000	4400	3400	3600	3900
240×45	4100	4400	4800	3700	3900	4300
290×45	5000	5200	5500	4600	4800	5200

Continuous Span

Size D×B (mm)	Joist Spacing 450 mm			Joist Spacing 600 mm		
	F5	F7	MGP 10	F5	F7	MGP 10
70×45	NS	1100	1200	NS	NS	1000
90×35	1100	1500	1300	NS	1200	1000
90×45	1600	1700	1800	1200	1500	1700
120×35	2000	2100	2300	1800	1900	2100
120×45	2200	2300	2500	2000	2100	2300
140×35	2400	2500	2800	2200	2300	2500
140×45	2600	2800	3100	2400	2500	2700
190×35	3400	3600	4000	3100	3200	3500
190×45	3800	4000	4400	3400	3500	3900
240×35	4600	4900	5200	4000	4200	4500
240×45	5100	5300	5600	4400	4600	5000
290×45	5900	6100	6400	5400	5600	6000

- Notes**
- Table is extracted from AS 1684 – 2006 – Residential Timber-Framed Construction Standard and assumes the building practice contained within that standard. Roof load width is set to zero, i.e. no wall or roof loads are taken into account. Maximum floor mass of 40 kg/m².
 - The sizes given in this table are not suitable for heavy point loads, except those allowed in CI 4.3.2.4 of AS1684.2 and AS1684.3.
 - Joists crippled over supports shall be considered as single span joists. Refer CI 4.2.2.3, AS1684.2 and 3.
 - For design parameters, refer to Figure 4.9, AS1684.2 and 3.
 - NS = Not Suitable



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This publication was produced by the Timber and Building Materials Association, in conjunction with the Timber Development Association (NSW) and with assistance from the FWPRDC. The FWPRDC is jointly funded by the forest and wood products industry and the Australian Government.

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