

# 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 400 mm, 450 mm and 600 mm Joist Spacing**

Size DxB (mm)	Single Span						
	Joist Spacing 400 mm		Joist Spacing 450 mm			Joist Spacing 600 mm	
	F5	F5	F7	MGP 10	F5	F7	MGP10
90x35	NS	NS	1000	NS	NS	NS	NS
90x45	1200	1000	1400	1500	NS	1100	1200
120x35	1800	1600	1800	1900	1300	1700	1500
120x45	2000	1900	2000	2100	1700	1800	2000
140x35	2100	2000	2100	2300	1900	2000	2100
140x45	2400	2200	2300	2600	2100	2200	2400
190x35	3100	2900	3000	3300	2600	2800	3000
190x45	3400	3100	3300	3600	2900	3000	3300
240x35	4100	3800	4000	4400	3400	3600	3900
240x45	4500	4100	4400	4800	3700	3900	4300
290x45	5200	5000	5200	5500	4600	4800	5200

Size DxB (mm)	Continuous Span						
	Joist Spacing 400 mm		Joist Spacing 450 mm			Joist Spacing 600 mm	
	F5	F5	F7	MGP 10	F5	F7	MGP10
70x45	NS	NS	1100	1200	NS	NS	1000
90x35	1200	1100	1500	1300	NS	1200	1000
90x45	1700	1600	1700	1800	1200	1500	1700
120x35	2100	2000	2100	2300	1800	1900	2100
120x45	2400	2200	2300	2500	2000	2100	2300
140x35	2600	2400	2500	2800	2200	2300	2500
140x45	2800	2600	2800	3100	2400	2500	2700
190x35	3800	3400	3600	4000	3100	3200	3500
190x45	4200	3800	4000	4400	3400	3500	3900
240x35	4900	4600	4900	5200	4000	4200	4500
240x45	5200	5100	5300	5600	4400	4600	5000
290x45	6000	5900	6100	6400	5400	5600	6000

**Notes**

1. The Tables for 450 mm and 600 mm Joists Spacings have been extracted from AS1684 - 2006 Residential Timber Framed Construction Standard and assumes the Roof loads width is set to zero, i.e. no wall or roof loads are taken into account. Maximum floor mass is 40 kg/m<sup>2</sup>
2. The Table for 400 mm Joists Spacings has been produced using the Timber Solutions software Version 2.02 © Forest and Wood Products Research and Development Corporation (FWPRDC) and assumes the Roof loads width is set to zero, i.e. no wall or roof loads are taken into account. Maximum floor mass is 40 kg/m<sup>2</sup>
3. These tables assume the building practice contained in AS1684 - 2006 Residential Timber Framed Construction Standard and the tables should be read in conjunction with that standard.
4. The sizes given in this table are not suitable for heavy point loads, except those allowed in Cl 4.3.2.4 of AS1684.2 and AS1684.3.
5. Joists crippled over supports shall be considered as single span joists. Refer Cl 4.2.2.3, AS1684.2 and 3.
6. For design parameters, refer to Figure 4.9, AS1684.2 and 3.
7. NS = Not Suitable



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