



## Deck Joists

Size & Grade	Single Span Deck Joists - Span values in mm					Continuous Span Deck Joists - Span values in mm				
	Joist Spacing (mm)					Joist Spacing (mm)				
	300	400	450	480	600	300	400	450	480	600
<b>140x35 F7</b>	2500	2200	2100	2100	2000	3100	2600	2500	2400	2100
<b>190x35 F7</b>	3400	3100	3000	2900	2700	4200	3600	3400	3300	2900
<b>90x45 F7</b>	1500	1100	1000	900	900	2200	1800	1600	1600	1300
<b>140x45 F7</b>	2700	2500	2400	2300	2200	3500	3000	2800	2700	2400
<b>190x45 F7</b>	3600	3300	3200	3100	2900	4600	4100	3900	3700	3300
<b>240x45 F7</b>	4500	4200	4000	3900	3700	5500	5200	4900	4700	4200
<b>290x45 F7</b>	5200	4900	4700	4700	4400	6400	6000	5700	5500	4900
<b>140x65 GL8</b>	3000	2800	2700	2600	2400	4000	3500	3300	3200	2900
<b>190x65 GL8</b>	4000	3700	3600	3500	3300	5100	4700	4500	4300	3900
<b>240x65 GL8</b>	4900	4600	4500	4400	4100	6100	5700	5500	5400	4900
<b>290x65 GL8</b>	5600	5300	5100	5100	4800	7000	6600	6400	6300	5900

### Basic Loading Data:

Flooring = PR Decking (25)

No underfloor ceiling load is applied

Floor Live Load = Balcony 2.0kPa live load, and 1.8kN point load. Loads as required for decks more than 1m above surrounding ground.

Standard AS1684.1 Dynamics for 1.0 kN static load

Min. End Bearing Length = 30mm

Min. Intermediate Bearing = 45mm

### Notes:

1. Minimum bearing lengths for support of deck joists: 30mm on end supports, and 45mm internal supports.
2. The span value shown is the distance between centrelines of supports.
3. For continuous spans, the adjacent deck joist spans may be different, but look up the larger of the spans, and the shorter span must be more than 50% of the larger span. If this rule is not met, then consider the deck joists are simply supported, and look up the larger span in the single span table.
4. Deflection criteria: for permanent load combinations, the lesser of Span/300, or 12mm, and for Floor Live Loads, the lesser of Span/360, or 9mm.
5. For deck joists the lateral restraint is assumed to be achieved via the fixing of flooring direct to the top edge. No restraint of the bottom edge of the joist is assumed.
6. Where there are conflicts in design between loading codes (AS/NZS1170 series), timber code (AS1720.1-2010) and AS1684.1-1999, the loading codes and timber codes take preference.
7. Floor dynamic load check is made for a 1kN concentrated load to ensure less than 2mm deflection.
8. These deck joist designs assume the joists are initially seasoned, but may be wet in service, with an average moisture content less than 20%. The above span table values have been designed in accordance with the following codes:  
AS1720.1-2010 Timber Design Code  
AS1170.0, .1-2002, .2-2011 Loading Codes for Limit State design, Live Loads, and Wind Loads respectively.  
AS1684.1-1999 Design Criteria for Residential Timber Framing.

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