

AS 1684.2 C2 Supplement 4—2010

Residential timber-framed construction

Part 3: Cyclonic areas C2 Supplement 4: Timber framing span tables—Wind classification C2— Seasoned softwood—Stress Grade MGP 10 (Supplement to AS 1684.3—2010)



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This document incorporates Amendment No. 1 (June 2012). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the note, table, or part thereof affected.

TABLE 1 **FLOOR BEARERS - Floor load width 1200 mm**
Supporting single or upper storey loadbearing walls

Size DxB (mm)	Roof Load Width (mm)											
	1500		4500		7500		1500		4500		7500	
	Maximum Bearer Span (mm)											
	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever
	Single Span						Continuous Span					
Sheet Roof												
2/90x35	1300	300	1100	300	1000	300	1500	400	1300	300	1100	300
2/90x45	1500	400	1200	300	1100	300	1700	500	1500	400	1300	300
2/120x35	1800	500	1500	400	1400	400	2000	600	1800	500	1500	400
2/120x45	2000	600	1700	500	1500	400	2300	600	2000	600	1700	500
2/140x35	2100	600	1800	500	1600	400	2400	700	2100	600	1800	500
2/140x45	2300	600	2000	600	1800	500	2700	800	2300	600	2000	600
2/170x35	2600	700	2200	600	2000	600	2800	800	2500	700	2100	600
2/170x45	2800	800	2400	700	2200	600	3200	900	2800	800	2400	700
2/190x35	2900	800	2500	700	2200	600	3100	900	2700	800	2300	600
2/190x45	3100	900	2700	800	2400	700	3500	1000	3100	900	2700	800
2/240x35	3600	1000	3100	900	2800	800	3800	1100	3300	900	2800	800
2/240x45	3800	1100	3400	1000	3100	900	4300	1200	3700	1100	3200	900
2/290x35	4100	1200	3700	1100	3300	900	4400	1300	3800	1100	3300	900
2/290x45	4400	1300	3900	1100	3700	1100	4900	1400	4300	1200	3700	1100
Tile Roof												
2/90x35	1200	300	1000	300	NS	NS	1400	400	1000	300	NS	NS
2/90x45	1300	300	1000	300	NS	NS	1600	400	1200	300	NS	NS
2/120x35	1600	400	1300	300	1100	300	1800	500	1400	400	1100	300
2/120x45	1800	500	1400	400	1200	300	2100	600	1600	400	1300	300
2/140x35	1900	500	1500	400	1300	300	2200	600	1600	400	1300	300
2/140x45	2100	600	1600	400	1400	400	2500	700	1800	500	1500	400
2/170x35	2300	600	1800	500	1600	400	2600	700	1900	500	1600	400
2/170x45	2500	700	2000	600	1800	500	2900	800	2200	600	1800	500
2/190x35	2600	700	2100	600	1700	500	2800	800	2100	600	1700	500
2/190x45	2800	800	2300	600	2000	600	3200	900	2400	700	2000	600
2/240x35	3300	900	2600	700	2100	600	3400	1000	2600	700	2100	600
2/240x45	3600	1000	2900	800	2400	700	3900	1100	2900	800	2400	700
2/290x35	3800	1100	3000	900	2400	700	4000	1200	3000	900	2400	700
2/290x45	4100	1200	3400	1000	2800	800	4500	1300	3400	1000	2800	800

NOTES:

- Maximum bearer spans supporting roof loads are based on the support of a maximum total sheet roof, framing and ceiling mass of 40 kg/m², a maximum total tile roof, framing and ceiling mass of 90 kg/m² and a maximum flooring mass of 40 kg/m². For guidance on determination of roof mass, refer to Appendix A.
- Cantilevers shall not exceed 50% of actual backspan.
- Minimum bearing length = 50 mm at end support and 100 mm at internal supports for continuous members. Subscript values, where applicable, indicate the minimum additional bearing length where required to be greater than 50 mm at end supports and 100 mm at internal supports.
- Multiple members shall be nailed together as per Clause 2.3.
- For designed parameters, refer to Figure 4.6.
- Where loadbearing walls are supported at right angles to bearer within the bearer span, reference should be made to Clause 4.3.1.5.
- Where bearers support roof point loads, reference should be made to Clause 4.3.1.6.

TABLE 2 **FLOOR BEARERS - Floor load width 2400 mm**
Supporting single or upper storey loadbearing walls

Size DxB (mm)	Roof Load Width (mm)											
	1500		4500		7500		1500		4500		7500	
	Maximum Bearer Span (mm)											
	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever
	Single Span						Continuous Span					
Sheet Roof												
2/90x35	1100	300	1000	300	NS	NS	1100	300	1000	300	NS	NS
2/90x45	1200	300	1100	300	1000	300	1300	300	1200	300	1100	300
2/120x35	1500	400	1400	400	1300	300	1500	400	1400	400	1300	300
2/120x45	1700	500	1500	400	1400	400	1700	500	1600	400	1500	400
2/140x35	1800	500	1600	400	1500	400	1800	500	1600	400	1500	400
2/140x45	2000	600	1800	500	1600	400	2000	600	1900	500	1700	500
2/170x35	2100	600	2000	600	1800	500	2100	600	2000	600	1800	500
2/170x45	2400	700	2100	600	2000	600	2400	700	2200	600	2100	600
2/190x35	2300	600	2100	600	2000	600	2300	600	2100	600	2000	600
2/190x45	2700	800	2400	700	2200	600	2700	800	2400	700	2300	600
2/240x35	2900	800	2600	700	2400	700	2900	800	2600	700	2400	700
2/240x45	3200	900	3000	900	2800	800	3200	900	3000	900	2800	800
2/290x35	3300	900	3000	900	2800	800	3300	900	3000	900	2800	800
2/290x45	3700	1100	3400	1000	3200	900	3700	1100	3400	1000	3200	900
Tile Roof												
2/90x35	1100	300	NS	NS	NS	NS	1100	300	NS	NS	NS	NS
2/90x45	1200	300	1000	300	NS	NS	1200	300	1000	300	NS	NS
2/120x35	1400	400	1200	300	1000	300	1400	400	1200	300	1000	300
2/120x45	1600	400	1300	300	1200	300	1600	400	1400	400	1200	300
2/140x35	1700	500	1400	400	1200	300	1700	500	1400	400	1200	300
2/140x45	1800	500	1500	400	1400	400	1900	500	1600	400	1400	400
2/170x35	2000	600	1700	500	1500	400	2000	600	1700	500	1500	400
2/170x45	2200	600	1900	500	1700	500	2300	600	1900	500	1700	500
2/190x35	2200	600	1900	500	1600	400	2200	600	1900	500	1600	400
2/190x45	2500	700	2100	600	1800	500	2500	700	2100	600	1800	500
2/240x35	2700	800	2300	600	2000	600	2700	800	2300	600	2000	600
2/240x45	3100	900	2600	700	2200	600	3100	900	2600	700	2200	600
2/290x35	3100	900	2700	800	2300	600	3100	900	2700	800	2300	600
2/290x45	3500	1000	3000	900	2600	700	3500	1000	3000	900	2600	700

NOTES:

- Maximum bearer spans supporting roof loads are based on the support of a maximum total sheet roof, framing and ceiling mass of 40 kg/m², a maximum total tile roof, framing and ceiling mass of 90 kg/m² and a maximum flooring mass of 40 kg/m². For guidance on determination of roof mass, refer to Appendix A.
- Cantilevers shall not exceed 50% of actual backspan.
- Minimum bearing length = 50 mm at end support and 100 mm at internal supports for continuous members. Subscript values, where applicable, indicate the minimum additional bearing length where required to be greater than 50 mm at end supports and 100 mm at internal supports.
- Multiple members shall be nailed together as per Clause 2.3.
- For designed parameters, refer to Figure 4.6.
- Where loadbearing walls are supported at right angles to bearer within the bearer span, reference should be made to Clause 4.3.1.5.
- Where bearers support roof point loads, reference should be made to Clause 4.3.1.6.

TABLE 3 **FLOOR BEARERS - Floor load width 3600 mm**
Supporting single or upper storey loadbearing walls

Size DxB (mm)	Roof Load Width (mm)											
	1500		4500		7500		1500		4500		7500	
	Maximum Bearer Span (mm)											
	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever
	Single Span						Continuous Span					
Sheet Roof												
2/90x35	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2/90x45	1100	300	1000	300	NS	NS	1100	300	1000	300	NS	NS
2/120x35	1300	300	1200	300	1100	300	1300	300	1200	300	1100	300
2/120x45	1400	400	1300	300	1300	300	1400	400	1300	300	1300	300
2/140x35	1500	400	1400	400	1300	300	1500	400	1400	400	1300	300
2/140x45	1700	500	1600	400	1500	400	1700	500	1600	400	1500	400
2/170x35	1800	500	1700	500	1600	400	1800	500	1700	500	1600	400
2/170x45	2000	600	1900	500	1800	500	2000	600	1900	500	1800	500
2/190x35	1900	500	1800	500	1700	500	1900	500	1800	500	1700	500
2/190x45	2200	600	2100	600	2000	600	2200	600	2100	600	2000	600
2/240x35	2400	700	2200	600	2100	600	2400	700	2200	600	2100	600
2/240x45	2700	800	2500	700	2400	700	2700	800	2500	700	2400	700
2/290x35	2700	800	2600	700	2400	700	2700	800	2600	700	2400	700
2/290x45	3100	900	2900	800	2800	800	3100	900	2900	800	2800	800
Tile Roof												
2/90x35	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2/90x45	1000	300	NS	NS	NS	NS	1000	300	NS	NS	NS	NS
2/120x35	1200	300	1100	300	1000	300	1200	300	1100	300	1000	300
2/120x45	1400	400	1200	300	1100	300	1400	400	1200	300	1100	300
2/140x35	1400	400	1300	300	1100	300	1400	400	1300	300	1100	300
2/140x45	1600	400	1400	400	1300	300	1600	400	1400	400	1300	300
2/170x35	1700	500	1500	400	1400	400	1700	500	1500	400	1400	400
2/170x45	1900	500	1700	500	1500	400	1900	500	1700	500	1500	400
2/190x35	1900	500	1700	500	1500	400	1900	500	1700	500	1500	400
2/190x45	2100	600	1900	500	1700	500	2100	600	1900	500	1700	500
2/240x35	2300	600	2000	600	1800	500	2300	600	2000	600	1800	500
2/240x45	2600	700	2300	600	2100	600	2600	700	2300	600	2100	600
2/290x35	2600	700	2300	600	2100	600	2600	700	2300	600	2100 ₍₅₎	600
2/290x45	3000	900	2700	800	2400	700	3000	900	2700	800	2400	700

NOTES:

- Maximum bearer spans supporting roof loads are based on the support of a maximum total sheet roof, framing and ceiling mass of 40 kg/m², a maximum total tile roof, framing and ceiling mass of 90 kg/m² and a maximum flooring mass of 40 kg/m². For guidance on determination of roof mass, refer to Appendix A.
- Cantilevers shall not exceed 50% of actual backspan.
- Minimum bearing length = 50 mm at end support and 100 mm at internal supports for continuous members. Subscript values, where applicable, indicate the minimum additional bearing length where required to be greater than 50 mm at end supports and 100 mm at internal supports.
- Multiple members shall be nailed together as per Clause 2.3.
- For designed parameters, refer to Figure 4.6.
- Where loadbearing walls are supported at right angles to bearer within the bearer span, reference should be made to Clause 4.3.1.5.
- Where bearers support roof point loads, reference should be made to Clause 4.3.1.6.