

RECYCLED HARDWOOD *SPAN TABLES*

SUPPLEMENT 8

Wind Classifications C1 and C2

Recycled Species Group D Recycled Grade, RG1

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1.0 INTRODUCTION

This Supplement was prepared under a project supported by Forest and Wood Products Australia and provides span tables for some common applications and uses for recycled structural hardwood timber. The span tables provided include some commercial as well as some domestic construction uses. The span tables are specific to recycled timber which will include recycled timber features.

2.0 APPLICATION

The span tables included in this Supplement are only applicable for use with timber graded in accordance with 'Interim Industry Standard, Recycled Timber – Visually Stress Graded Recycled Timber for Structural Purposes' available from www.timber.org.au for the Wind Classifications designated in this Supplement.

The Tables in this Supplement apply to Recycled Timber Species Group D - Recycled Grade, RG1.

For domestic applications, the requirements of AS 1684 are also applicable for use in conjunction with the Tables in this Supplement.

3.0 ALTERNATIVE GRADE

In addition to Species Group D, RG1, the tables in this Supplement apply to Recycled Timber Species Group C - Recycled Grade, RG2.

4.0 TOLERANCES

The depth (D) and breadth (B) shall not be more than 2mm under the sizes given.

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Table 1**Decking Boards - Commercial Applications
Supporting 5.0 kPa Uniform Live Load**

Size DxB (mm)	Point Live Load (kN)			
	3	5	9	13
	Span			
35x70	560	340	NS	NS
35x90	680	420	NS	NS
35x120	780	540	300	NS
35x140	820	640	360	NS
45x70	840	580	320	NS
45x90	920	700	380	NS
45x120	1020	920	520	360
45x140	1080	1060	600	420

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum DL of 60 (kg/m²), Floor Live Load of 5 (kPa).
- iii) End bearing lengths = 20 mm at end supports and 20 mm at internal supports for continuous members.
- iv) Point loads are assumed to be shared by two deck boards.
- v) Live load deflection limit = span/150 or 4 mm.
- vi) Decking shall be two or more continuous span.

Table 2

Deck Bearers - Domestic Applications May Support Decks Greater than 1000mm above the Ground

Size DxB (mm)	Floor Load Width (mm)											
	1200		2400		4800		1200		2400		4800	
	Bearer Span (mm)											
	Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H
	Single Span						Continuous Span					
90x45	1200	300	NS	NS	NS	NS	1200	300	NS	NS	NS	NS
90x70	1500	400	1100	300	NS	NS	1500	400	1100	300	NS	NS
90x90	1700	500	1200	300	NS	NS	1700	500	1200	300	NS	NS
120x45	1700	500	1200	300	NS	NS	1700	500	1200	300	NS	NS
120x70	2100	600	1500	400	1000	300	2100	600	1500	400	1000	300
120x90	2300	600	1600	400	1100	300	2300	600	1600	400	1100	300
140x45	2000	600	1400	400	NS	NS	2000	600	1400	400	NS	NS
140x70	2400	700	1700	500	1200	300	2400	700	1700	500	1200	300
140x90	2700	800	1900	500	1300	300	2700	800	1900	500	1300	300
170x45	2400	700	1700	500	1200 ₅	300 ₅	2400	700	1700	500	1100 ₂₀	300 ₂₀
170x70	3000	900	2100	600	1400	400	3000	900	2100	600	1400	400
170x90	3300	900	2300	600	1600	400	3300	900	2300	600	1600	400
190x45	2700	800	1900	500	1300 ₁₀	300 ₁₀	2700	800	1900	500	1300 ₃₅	300 ₃₅
190x70	3300	900	2300	600	1600	400	3300	900	2300	600	1600 ₁₀	400 ₁₀
190x90	3700	1100	2600	700	1800	500	3700	1100	2600	700	1800	500
240x45	3400	1000	2400 ₅	700 ₅	1700 ₂₅	500 ₂₅	3400	1000	2400 ₂₀	700 ₂₀	1600 ₇₅	400 ₇₅
240x70	4200	1200	3000	900	2100 ₁₀	600 ₁₀	4200	1200	3000	900	2100 ₅₀	600 ₅₀
240x90	4600	1300	3300	900	2300 ₅	600 ₅	4700	1400	3300	900	2300 ₃₀	600 ₃₀
290x45	4200	1200	2900 ₁₅	800 ₁₅	2000 ₄₀	600 ₄₀	4200	1200	2900 ₅₅	800 ₅₅	1900 ₁₁₀	500 ₁₁₀
290x70	5000	1500	3600	1000	2500 ₂₅	700 ₂₅	5100	1500	3600 ₂₀	1000 ₂₀	2500 ₈₀	700 ₈₀
290x90	5300	1500	4000	1200	2800 ₁₅	800 ₁₅	5600	1600	4000 ₅	1200	2800 ₆₅	800 ₆₅

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Cantilever (mm).
- ii) The above table was based on a maximum DL of 30 (kg/m²), Floor Point Load of 1.8 (kN), Balcony Live Load of 3 (kPa).
- iii) Minimum BackSpan = 200 % of Overhang.
- iv) Maximum Overhang = 30 % of Backspan.
- v) End bearing lengths = 50 mm at end supports and 100 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 50 mm at end supports and 100 mm at internal supports.

Table 3

Deck Joists - Domestic Applications
May Support Decks greater than 1000mm above the Ground

Size DxB (mm)	Joist Spacing (mm)											
	300		450		600		300		450		600	
	Max Joist Span (mm)											
	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever	Span	C'lever
Single Span						Continuous Span						
90x35	1300	300	1300	300	1300	300	1600	400	1500	400	1500	400
90x45	1600	400	1500	400	1400	400	1900	500	1800	500	1700	500
120x35	2200	600	2000	600	2000	600	2700	800	2500	750	2100	600
120x45	2500	700	2300	600	2300	600	3100	900	2800	800	2400	700
140x35	2800	800	2600	700	2500	700	3300	900	2900	850	2500	700
140x45	3200	900	3000	900	2800	800	3700	1100	3300	950	2800	800
170x35	3600	1000	3400	1000	3100	900	4100	1200	3500	1050	3100	900
170x45	3900	1100	3800	1100	3400	1000	4500	1300	4000	1150	3400	1000
190x35	4000	1200	3800	1100	3400	1000	4600	1350	3900	1100	3400	1000
190x45	4400	1300	4100	1200	3800	1100	5000	1450	4400	1300	3800	1100
240x35	5100	1500	4600	1300	4300	1200	5800	1700	5000	1500	4300	1200
240x45	5500	1600	4900	1400	4600	1300	6300	1850	5600	1600	4800	1400
290x45	6300	1800	5700	1700	5300	1500	7200	2100	6700	1950	5800	1700

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, C'lever = Cantilever (mm).
- ii) The above table was based on a maximum Deck Mass of 30 (kg/m²), Floor Point Load of 1.8 (kN), Balcony Live Load of 3 (kPa).
- iii) Minimum BackSpan = 200 % of Overhang.
- iv) Maximum Overhang = 30 % of Backspan.
- v) End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members.

Table 4

Stair Stringers

Size DxB (mm)	Stair Width (mm)					
	750	900	1200	1500	1800	2400
	Maximum Stringer Span (mm)					
190x35	3300	3300	3100	2800	2600	2400
190x45	3600	3600	3300	3100	2900	2600
240x35	4100	4100	3800	3600	3300	3000
240x45	4500	4300	4000	3800	3600	3300
290x45	5100	4900	4600	4400	4200	3900

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Floor Mass of 40 (kg/m²), Floor Live Load of 2.0 (kPa), Floor Point Load of 2.7 (kN).
- iii) Minimum bearing length = 50 mm at end supports.
- iv) Maximum trench depth to accommodate treads - 10 mm.

Table 5**Stair Treads (with open flights)**

Size DxB (mm)	Max Tread Span (mm)
35x240	NS
35x290	NS
40x240	800
40x290	900
45x240	1000
45x290	1100
50x240	1200
50x290	1300
60x240	1600
60x290	1800

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Deck Mass of 40 (kg/m²), Floor Point Load of 2.7 (kN).
- iii) Minimum bearing length = 35 mm at end supports.

Table 6

Posts
Supporting Roof and/or Floor Loads

	Floor Load Area (m2)											
	0				10				20			
Roof Load Area (m2)	0	10	20	40	0	10	20	40	0	10	20	40
Size DxB (mm)	Maximum Post Height (mm)											
Sheet Roof												
70x70	4800	2400	NS	NS	2100	1900	NS	NS	1300	1200	NS	NS
90x90	4800	4000	2800	NS	3400	3100	2600	NS	2400	2300	2100	NS
120x120	4800	4800	4800	3500	4800	4800	4600	3400	4200	4000	3800	3200
140x140	4800	4800	4800	4800	4800	4800	4800	4600	4800	4800	4800	4400
170x170	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800
190x190	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800
Tile Roof												
70x70	4800	2100	NS	NS	2100	1700	NS	NS	1300	NS	NS	NS
90x90	4800	3400	2400	NS	3400	2700	2200	NS	2400	2100	1900	NS
120x120	4800	4800	4200	3000	4800	4800	3900	2900	4200	3800	3400	2800
140x140	4800	4800	4800	4100	4800	4800	4800	3900	4800	4800	4700	3800
170x170	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800
190x190	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²), Tile Roof Mass of 90 (kg/m²), Total Upper Floor Mass of 50 (kg/m²), Floor Live Load of 1.5 (kPa).
- iii) Posts are free standing, i.e. not supporting lateral wind loads from walls etc.

Table 7

**Window or Door Mullions
Single or Upper Storey Load Bearing Walls**

Size DxB (mm)	Mullion Height (mm)	Roof Load Width (mm)							
		3000	4500	6000	7500	3000	4500	6000	7500
		Mullion Spacing (mm)							
		Sheet Roof				Tile Roof			
90x120	2400	1300	1200	1100	1000	1200	1000	NS	NS
	2700	1500	1400	1300	1200	1400	1300	1100	1000
120x70	2400	1200	1000	900	NS	1000	NS	NS	NS
	2700	1500	1400	1300	1200	1400	1300	1200	1100
120x90	2400	1800	1700	1600	1600	1700	1600	1500	1400
	2700	1500	1400	1300	1200	1400	1300	1100	1000
120x120	3000	1100	1000	900	NS	1000	900	NS	NS
	2400	2500	2300	2200	2100	2300	2100	2000	1800
120x140	2700	1900	1800	1700	1600	1800	1700	1600	1500
	3000	1600	1500	1400	1300	1500	1400	1200	1100
120x140	3600	1000	NS	NS	NS	NS	NS	NS	NS
	2400	2900	2800	2600	2400	2800	2500	2300	2200
140x70	2700	2300	2100	2000	1900	2200	2000	1800	1700
	3000	1800	1700	1600	1600	1700	1600	1500	1400
140x90	3600	1200	1100	1100	1000	1100	1000	NS	NS
	2400	2100	1900	1800	1700	2000	1800	1700	1600
140x120	2700	1600	1600	1500	1400	1600	1500	1400	1300
	3000	1300	1200	1200	1100	1200	1100	1000	900
140x90	2400	2600	2400	2300	2200	2500	2300	2100	2000
	2700	2000	1900	1800	1700	1900	1800	1700	1600
140x120	3000	1600	1600	1500	1400	1600	1500	1400	1300
	3600	1100	1000	900	NS	1000	NS	NS	NS
140x140	2400	3500	3300	3100	2900	3300	3100	2800	2700
	2700	2700	2600	2400	2300	2600	2400	2200	2100
140x140	3000	2200	2100	2000	1800	2100	1900	1800	1700
	3600	1500	1400	1400	1300	1400	1300	1200	1100
140x140	4200	900	900	NS	NS	900	NS	NS	NS
	2400	4100	3900	3700	3500	3900	3600	3400	3100
140x140	2700	3300	3100	2900	2800	3100	2900	2700	2500
	3000	2600	2400	2300	2200	2500	2300	2100	2000
140x140	3600	1700	1600	1600	1500	1600	1600	1500	1400
	4200	1100	1100	1000	1000	1100	1000	1000	NS

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Sheet Roof Mass of 40 (kg/m²), Tile Roof Mass of 90 (kg/m²).
- iii) Maximum tension load in mullion not to exceed 60 kN.
- iv) Mullion Spacing is half the width of opening either side of mullion or for mullions/studs at sides of openings, half the width of opening.

Table 8 Lintels (Window Heads) - Sheet Roof Supporting Single or Upper Storey Loadbearing Walls

	Roof Load Width (mm)										
	1500		3000		4500		6000		7500		
Rafter/Truss Spacing (mm)	600	1200	600	1200	600	1200	600	1200	600	1200	
Size DxB (mm)	Maximum Lintel Span (mm)										
	Single Span										
140x35	1900	1600	1300	NS	NS	NS	NS	NS	NS	NS	NS
140x45	2200	2100	1500	NS	1200	NS	NS	NS	NS	NS	NS
140x70	2700	2600	1800	1600	1500	NS	1300	NS	NS	NS	NS
140x90	3000	2900	2100	2000	1600	1300	1400	NS	1300	NS	NS
170x35	2400	2300	1600	NS	NS	NS	NS	NS	NS	NS	NS
170x45	2700	2600	1800	1500	1500	NS	NS	NS	NS	NS	NS
170x70	3300	3200	2300	2200	1800	1600	1600	NS	1400	NS	NS
170x90	3500	3400	2600	2500	2100	1900	1700	1400	1500	NS	NS
190x35	2700	2600	1800	1500	1400	NS	NS	NS	NS	NS	NS
190x45	3000	2900	2100	1900	1600	NS	1400	NS	NS	NS	NS
190x70	3600	3500	2600	2600	2100	2000	1800	1300	1600	NS	NS
190x90	3800	3700	2900	2800	2400	2200	2000	1700	1700	1200	NS
240x35	3400	3200	2400	2300	1900	NS	1600	NS	NS	NS	NS
240x45	3800	3700	2700	2600	2200	1700	1800	NS	1600	NS	NS
240x70	4200	4200	3300	3200	2700	2600	2300	1900	2000	1600	NS
240x90	4500	4400	3700	3600	3000	2900	2600	2500	2300	1900	NS
290x45	4400	4400	3300	3100	2600	2600	2300	1700	2000	NS	NS
290x70	4800	4800	4000	3900	3300	3100	2800	2700	2500	2000	NS
290x90	5100	5100	4400	4400	3700	3500	3100	3000	2800	2700	NS
Continuous Span											
140x35	2000	1800	1400	NS	NS	NS	NS	NS	NS	NS	NS
140x45	2200	2100	1500	1300	NS	NS	NS	NS	NS	NS	NS
140x70	2800	2800	1900	1600	1600	1300	1400	NS	NS	NS	NS
140x90	3100	3000	2100	2000	1700	1600	1500	NS	1200	NS	NS
170x35	2400	2400	1600	1200	NS	NS	NS	NS	NS	NS	NS
170x45	2700	2700	1700	1600	1400	NS	NS	NS	NS	NS	NS
170x70	3400	3300	2300	2300	1700	1600	1500	1200	NS	NS	NS
170x90	3800	3700	2600	2700	2100	2000	1700	1400	1500	1200	NS
190x35	2700	2700	1600	1300	NS	NS	NS	NS	NS	NS	NS
190x45	3000	3000	2100	1700	1500	1200	NS	NS	NS	NS	NS
190x70	3800	3700	2600	2700	2200	1700	1600	1300	1400	NS	NS
190x90	4200	4200	2900	2900	2400	2400	1900	1600	1600	1300	NS
240x35	3400	3400	2300	1900	1900 ₂₀	1200	1300 ₁₀	NS	NS	NS	NS
240x45	3900	3800	2700	2700	1900	1900	1900 ₂₅	NS	1300 ₁₀	NS	NS
240x70	4800	4800	3400	3300	2700	2800	2200	1900	1900 ₅	1900 ₅	NS
240x90	5300	5300	3700	3700	3000	3000	2500	2700	2100	1900	NS
290x45	4700	4600	3300 ₁₀	3200 ₁₀	2400 ₂₅	2000 ₅	2000 ₃₅	2000 ₃₀	2000 ₆₀	NS	NS
290x70	5800	5800	4100	4100	3300 ₁₀	3200 ₁₀	2600 ₂₀	2800 ₂₅	2100 ₁₅	2000 ₁₅	NS
290x90	6300	6300	4500	4500	3700	3600	3200 ₁₅	3200 ₁₅	2600 ₁₅	2800 ₂₅	NS

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Roof Mass of 40 (kg/m²).
- iii) End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports.

Table 9

**Lintels (Window Heads) - Tile Roof
Supporting Single or Upper Storey Loadbearing Walls**

	Roof Load Width (mm)									
	1500		3000		4500		6000		7500	
Rafter/Truss Spacing (mm)	600	1200	600	1200	600	1200	600	1200	600	1200
Size DxB (mm)	Maximum Lintel Span (mm)									
	Single Span									
140x35	1700	1700	1400	NS	NS	NS	NS	NS	NS	NS
140x45	1900	1900	1500	1200	1300	NS	NS	NS	NS	NS
140x70	2200	2200	1700	1700	1500	1200	1400	NS	1200	NS
140x90	2400	2400	1900	1900	1600	1500	1500	NS	1400	NS
170x35	2100	2100	1600	1400	1400	NS	NS	NS	NS	NS
170x45	2300	2300	1800	1800	1600	NS	1400	NS	NS	NS
170x70	2700	2700	2100	2100	1800	1800	1700	1200	1500	NS
170x90	2900	2900	2300	2300	2000	2000	1800	1600	1700	1200
190x35	2300	2300	1900	1600	1500	NS	NS	NS	NS	NS
190x45	2600	2600	2000	2000	1800	1300	1500	NS	NS	NS
190x70	3000	3000	2400	2400	2100	2000	1900	1600	1700	NS
190x90	3100	3100	2600	2600	2300	2200	2100	2000	1900	1600
240x35	3000	3000	2400	2300	2000	1600	1700	NS	1200	NS
240x45	3200	3100	2600	2600	2300	1900	1900	1400	1700	NS
240x70	3500	3500	3000	3000	2600	2700	2400	2400	2200	1700
240x90	3700	3700	3200	3200	2900	2900	2600	2700	2400	2400
290x45	3700	3600	3100	3100	2700	2700	2500	1900	2000	1500
290x70	4100	4100	3500	3400	3100	3100	2900	2900	2700	2600
290x90	4300	4300	3700	3600	3300	3300	3100	3100	2900	2900
Continuous Span										
140x35	2100	2000	1500	NS	NS	NS	NS	NS	NS	NS
140x45	2400	2500	1600	1400	1400	NS	NS	NS	NS	NS
140x70	2900	2900	2100	2000	1600	1400	1400	NS	NS	NS
140x90	3100	3100	2300	2200	1800	1600	1600	1300	1400	NS
170x35	2600	2600	1700	1400 ₅	1300 ₁₀	NS	NS	NS	NS	NS
170x45	2900	2900	2000	1700	1500	1200	NS	NS	NS	NS
170x70	3400	3400	2500	2600	2000	1700	1600	1300 ₁₀	1400 ₅	NS
170x90	3600	3600	2800	2800	2300	2200	2000	1600 ₅	1600	1300
190x35	2900	2900	1800	1600	1400 ₂₀	NS	NS	NS	NS	NS
190x45	3300	3200	2300	2100	1600 ₅	1300	NS	NS	NS	NS
190x70	3700	3700	2800	2800	2300	2100	1700	1500	1500 ₁₀	1200
190x90	3900	3900	3100	3100	2600	2600	2200 ₅	1700	1700	1500
240x35	3700	3600	2500 ₃₅	2600 ₄₅	1900 ₅₀	1900 ₅₀	1800 ₉₀	NS	NS	NS
240x45	4000	3900	2900 ₂₅	2900 ₂₅	2200 ₄₅	1900 ₂₅	1900 ₆₀	1800 ₅₅	1800 ₉₀	NS
240x70	4400	4400	3600 ₅	3500	2900 ₂₅	2900 ₂₅	2500 ₄₀	2600 ₄₀	1900 ₃₀	1900 ₃₅
240x90	4700	4700	4000	4000	3300 ₁₅	3200 ₁₀	2800 ₂₅	2800 ₃₀	2500 ₄₀	2500 ₄₀
290x45	4600	4600	3500 ₄₅	3200 ₄₀	2600 ₇₀	2800 ₈₅	2000 ₇₅	2000 ₇₅	2000 ₁₁₅	1900 ₁₀₀
290x70	5100	5100	4300 ₂₀	4300 ₂₀	3500 ₅₀	3300 ₃₅	3000 ₇₀	3000 ₇₀	2500 ₇₅	2000 ₄₅
290x90	5400	5400	4600 ₁₀	4600 ₁₀	3900 ₃₅	3900 ₃₀	3400 ₅₅	3200 ₅₀	3000 ₇₀	3000 ₇₀

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable.
- ii) The above table was based on a maximum Roof Mass of 90 (kg/m²).
- iii) End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports.

Table 10

Rafters or Purlins Supporting Roof and Ceiling Loads

Size Dx B (mm)	Roof & Ceiling Mass (kg/m ²)	Rafter Spacing (mm)							
		600		900		1200		1800	
		Maximum Rafter Span + Overhang (mm)							
		Span	O/H	Span	O/H	Span	O/H	Span	O/H
90x35	10	2000	350	1600	300	1300	250	1100	250
	20	2100	350	1600	300	1400	250	1100	250
	40	1800	350	1600	300	1400	250	1100	250
	60	1600	350	1400	300	1300	250	1100	250
	90	1400	350	1200	300	1100	250	1000	250
90x45	10	2300	400	1800	350	1500	300	1200	250
	20	2300	400	1800	350	1500	300	1200	250
	40	2000	450	1700	350	1600	300	1300	250
	60	1700	450	1500	350	1400	300	1200	250
	90	1500	400	1300	350	1200	300	1000	250
90x70	10	2900	550	2200	400	1900	350	1500	300
	20	2700	550	2300	450	1900	350	1500	300
	40	2200	550	2000	450	1800	350	1600	300
	60	2000	550	1800	450	1600	400	1400	300
	90	1800	550	1500	450	1400	400	1200	300
90x90	10	3200	600	2500	500	2100	400	1700	300
	20	2800	600	2600	500	2100	400	1700	300
	40	2400	600	2100	500	2000	400	1700	350
	60	2100	600	1900	500	1700	400	1500	350
	90	1900	650	1700	500	1500	450	1300	350
120x35	10	2800	450	2200	350	1800	300	1500	250
	20	2800	450	2200	350	1800	300	1500	250
	40	2400	500	2100	400	1900	300	1500	250
	60	2100	500	1900	400	1700	350	1500	250
	90	1900	500	1600	400	1500	350	1300	250
120x45	10	3200	550	2500	400	2100	350	1700	300
	20	3100	550	2500	450	2100	350	1700	300
	40	2600	550	2300	450	2100	350	1700	300
	60	2300	550	2000	450	1900	400	1600	300
	90	2000	550	1800	450	1600	400	1400	300
120x70	10	4000	700	3100	550	2600	450	2100	350
	20	3500	700	3200	550	2600	450	2100	350
	40	3000	700	2600	550	2400	450	2100	350
	60	2600	700	2300	550	2100	500	1900	400
	90	2300	700	2100	600	1900	500	1700	400

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Overhang (mm).
- ii) The above table was based on a Batten Spacing of 900.
- iii) Minimum BackSpan = 200 % of Overhang.
- iv) Maximum Overhang = 50 % of Backspan.
- v) Maximum BirdsMouth Depth = 30.00% of depth.
- vi) End bearing lengths = 35 mm at end supports and 35 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 35 mm at internal supports.
- vii) This Table may also be used for pergola or verandah rafters/purlins

Table 10 (cont)

Rafters or Purlins Supporting Roof and Ceiling Loads

Size DxB (mm)	Roof & Ceiling Mass (kg/m ²)	Rafter Spacing (mm)									
		600		900		1200		1800			
		Maximum Rafter Span + Overhang (mm)									
		Span	O/H	Span	O/H	Span	O/H	Span	O/H		
Single Span											
120x90	10	4100	750	3500	600	2900	500	2300	400		
	20	3700	750	3400	600	2900	500	2300	400		
	40	3200	800	2800	600	2600	550	2300	400		
	60	2800	800	2500	650	2300	550	2100	450		
	90	2500	800	2200	650	2100	550	1800	450		
140x35	10	3300	550	2600	400	2100	350	1700	300		
	20	3300	550	2600	400	2200	350	1800	300		
	40	2800	550	2500	450	2200	350	1800	300		
	60	2500	550	2200	450	2000	350	1700	300		
	90	2200	550	1900	450	1700	400	1500	300		
140x45	10	3700	600	2900	500	2400	400	2000	300		
	20	3600	600	3000	500	2500	400	2000	300		
	40	3000	600	2700	500	2500	400	2000	350		
	60	2700	650	2400	500	2200	450	1900	350		
	90	2400	650	2100	500	1900	450	1700	350		
140x70	10	4500	750	3700	600	3100	500	2400	400		
	20	4000	750	3700	600	3100	500	2500	400		
	40	3400	800	3100	650	2800	550	2500	400		
	60	3100	800	2700	650	2500	550	2200	450		
	90	2700	800	2400	650	2200	550	1900	450		
140x90	10	4700	850	4100	700	3500	600	2700	450		
	20	4200	850	3900	700	3500	600	2700	450		
	40	3700	900	3300	700	3000	600	2700	500		
	60	3300	900	2900	700	2700	600	2400	500		
	90	2900	950	2600	750	2400	650	2100	500		
170x35	10	4100	600	3200	500	2600	400	2100	300		
	20	4100	650	3200	500	2700	400	2100	300		
	40	3400	650	3000	500	2800	450	2200	350		
	60	3000	650	2700	500	2400	450	2100	350		
	90	2700	650	2300	550	2100	450	1900	350		
170x45	10	4600	700	3600	550	3000	500	2400	350		
	20	4300	700	3700	550	3100	500	2400	400		
	40	3700	750	3300	600	3000	500	2500	400		
	60	3300	750	2900	600	2600	500	2300	400		
	90	2900	750	2500	600	2300	500	2000	400		

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Overhang (mm).
- ii) The above table was based on a Batten Spacing of 900.
- iii) Minimum BackSpan = 200 % of Overhang.
- iv) Maximum Overhang = 50 % of Backspan.
- v) Maximum BirdsMouth Depth = 30.00% of depth.
- vi) End bearing lengths = 35 mm at end supports and 35 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 35 mm at internal supports.
- vii) This Table may also be used for pergola or verandah rafters/purlins

Table 10 (cont)

Rafters or Purlins Supporting Roof and Ceiling Loads

Size Dx B (mm)	Roof & Ceiling Mass (kg/m ²)	Rafter Spacing (mm)									
		600		900		1200		1800			
		Maximum Rafter Span + Overhang (mm)									
		Span	O/H	Span	O/H	Span	O/H	Span	O/H		
Single Span											
170x70	10	5300	900	4600	700	3800	600	3000	500		
	20	4800	900	4400	700	3900	600	3000	500		
	40	4100	950	3700	750	3400	650	3000	500		
	60	3700	950	3300	750	3000	650	2700	500		
	90	3300	950	2900	750	2700	650	2400	500		
170x90	10	5500	1000	5100	800	4300	700	3300	550		
	20	5000	1000	4600	800	4300	700	3300	550		
	40	4400	1050	4000	850	3700	700	3300	550		
	60	4000	1050	3600	850	3300	700	2900	550		
	90	3600	1100	3200	850	2900	750	2600	600		
190x35	10	4600	700	3600	550	3000	450	2400	350		
	20	4500	700	3700	550	3100	450	2400	350		
	40	3800	700	3400	550	3100	450	2500	350		
	60	3400	700	3000	550	2700	450	2400	350		
	90	3000	750	2600	600	2400	500	2100	400		
190x45	10	5200	800	4100	600	3400	500	2700	400		
	20	4800	800	4200	600	3500	550	2700	400		
	40	4100	800	3600	650	3300	550	2800	400		
	60	3600	800	3200	650	3000	550	2600	450		
	90	3200	850	2800	650	2600	550	2300	450		
190x70	10	5800	1000	5100	800	4300	650	3300	500		
	20	5200	1000	4900	800	4400	650	3400	550		
	40	4600	1000	4100	800	3800	700	3400	550		
	60	4100	1050	3700	800	3400	700	3000	550		
	90	3700	1050	3300	850	3000	700	2600	550		
190x90	10	6000	1100	5700	900	4800	750	3700	600		
	20	5500	1100	5100	900	4800	750	3800	600		
	40	4800	1150	4400	900	4100	750	3700	600		
	60	4400	1150	4000	950	3700	800	3200	600		
	90	4000	1200	3500	950	3200	800	2900	650		
240x35	10	5800	850	4600	650	3900	550	3000	400		
	20	5600	850	4700	650	4000	550	3100	450		
	40	4700	850	4200	650	3900	550	3100	450		
	60	4200	850	3800	700	3400	550	3000	450		
	90	3800	900	3300	700	3000	600	2700	450		

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Overhang (mm).
- ii) The above table was based on a Batten Spacing of 900.
- iii) Minimum BackSpan = 200 % of Overhang.
- iv) Maximum Overhang = 50 % of Backspan.
- v) Maximum BirdsMouth Depth = 30.00% of depth.
- vi) End bearing lengths = 35 mm at end supports and 35 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 35 mm at internal supports.
- vii) This Table may also be used for pergola or verandah rafters/purlins

Table 10 (cont)

Rafters or Purlins Supporting Roof and Ceiling Loads

Size DxB (mm)	Roof & Ceiling Mass (kg/m ²)	Rafter Spacing (mm)									
		600		900		1200		1800			
		Maximum Rafter Span + Overhang (mm)									
		Span	O/H	Span	O/H	Span	O/H	Span	O/H		
Single Span											
240x45	10	6600	950	5300	750	4400	650	3400	500		
	20	5900	950	5300	750	4500	650	3500	500		
	40	5100	1000	4500	750	4200	650	3500	500		
	60	4500	1000	4100	800	3700	650	3300	500		
	90	4100	1000	3600	800	3300	700	2900	550		
240x70	10	7000	1200	6600	950	5600	800	4300	650		
	20	6400	1200	6000	950	5600	800	4400	650		
	40	5600	1250	5100	1000	4800	850	4300	650		
	60	5100	1250	4600	1000	4300	850	3800	650		
	90	4600	1300	4100	1000	3800	850	3300	700		
240x90	10	7200	1350	6900	1050	6200	900	4900	700		
	20	6600	1350	6200	1100	5900	900	4900	750		
	40	5900	1400	5400	1100	5100	950	4600	750		
	60	5400	1400	4900	1100	4600	950	4100	750		
	90	4900	1450	4400	1150	4100	1000	3600	750		
290x45	10	7200	1100	6400	850	5400	750	4200	550		
	20	6900	1100	6400	900	5500	750	4300	600		
	40	6000	1150	5400	900	5000	750	4400	600		
	60	5400	1150	4900	900	4500	750	4000	600		
	90	4900	1200	4300	950	4000	800	3500	600		
290x70	10	7200	1400	7200	1100	6800	950	5300	750		
	20	7200	1400	7000	1100	6600	950	5400	750		
	40	6600	1450	6100	1150	5700	950	5100	750		
	60	6100	1450	5500	1150	5100	1000	4600	750		
	90	5500	1500	4900	1200	4600	1000	4000	800		
290x90	10	7200	1600	7200	1250	7200	1050	6000	850		
	20	7200	1600	7200	1250	7000	1050	6100	850		
	40	7000	1650	6400	1300	6000	1100	5500	850		
	60	6400	1650	5900	1300	5500	1100	4900	900		
	90	5900	1700	5300	1350	4900	1150	4400	900		

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Overhang (mm).
- ii) The above table was based on a Batten Spacing of 900.
- iii) Minimum BackSpan = 200 % of Overhang.
- iv) Maximum Overhang = 50 % of Backspan.
- v) Maximum BirdsMouth Depth = 30.00% of depth.
- vi) End bearing lengths = 35 mm at end supports and 35 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 35 mm at internal supports.
- vii) This Table may also be used for pergola or verandah rafters/purlins

Table 10 (cont)

Rafters or Purlins Supporting Roof and Ceiling Loads

Size Dx B (mm)	Roof & Ceiling Mass (kg/m ²)	Rafter Spacing (mm)							
		600		900		1200		1800	
		Maximum Rafter Span + Overhang (mm)							
		Span	O/H	Span	O/H	Span	O/H	Span	O/H
Continuous Span									
90x35	10	2000	350	1600	300	1300	250	1100	250
	20	2100	350	1600	300	1400	250	1100	250
	40	2100	350	1600	300	1400	250	1100	250
	60	2200	350	1700	300	1400	250	1200	250
	90	1900	350	1700	300	1500	250	1200	250
90x45	10	2300	400	1800	350	1500	300	1200	250
	20	2300	400	1800	350	1500	300	1200	250
	40	2400	450	1800	350	1600	300	1300	250
	60	2400	450	1900	350	1600	300	1300	250
	90	2100	400	1800	350	1700	300	1400	250
90x70	10	2900	550	2200	400	1900	350	1500	300
	20	2900	550	2300	450	1900	350	1500	300
	40	3000	550	2300	450	2000	350	1600	300
	60	2700	550	2400	450	2000	400	1600	300
	90	2400	550	2100	450	1900	400	1700	300
90x90	10	3200	600	2500	500	2100	400	1700	300
	20	3300	600	2600	500	2100	400	1700	300
	40	3300	600	2600	500	2200	400	1800	350
	60	2900	600	2600	500	2200	400	1800	350
	90	2600	650	2300	500	2100	450	1800	350
120x35	10	2800	450	2200	350	1800	300	1500	250
	20	2800	450	2200	350	1800	300	1500	250
	40	2900	500	2200	400	1900	300	1500	250
	60	2900	500	2300	400	1900	350	1600	250
	90	2600	500	2200	400	2000	350	1600	250
120x45	10	3200	550	2500	400	2100	350	1700	300
	20	3200	550	2500	450	2100	350	1700	300
	40	3300	550	2600	450	2100	350	1700	300
	60	3200	550	2600	450	2200	400	1800	300
	90	2800	550	2400	450	2200	400	1800	300
120x70	10	4000	700	3100	550	2600	450	2100	350
	20	4000	700	3200	550	2600	450	2100	350
	40	4000	700	3200	550	2700	450	2100	350
	60	3600	700	3200	550	2800	500	2200	400
	90	3200	700	2800	600	2600	500	2300	400

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Overhang (mm).
- ii) The above table was based on a Batten Spacing of 900.
- iii) Minimum BackSpan = 200 % of Overhang.
- iv) Maximum Overhang = 50 % of Backspan.
- v) Maximum BirdsMouth Depth = 30.00% of depth.
- vi) End bearing lengths = 35 mm at end supports and 35 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 35 mm at internal supports.
- vii) This Table may also be used for pergola or verandah rafters/purlins

Table 10 (cont)

Rafters or Purlins Supporting Roof and Ceiling Loads

Size DxB (mm)	Roof & Ceiling Mass (kg/m ²)	Rafter Spacing (mm)									
		600		900		1200		1800			
		Maximum Rafter Span + Overhang (mm)									
		Span	O/H	Span	O/H	Span	O/H	Span	O/H		
Continuous Span											
120x90	10	4400	750	3500	600	2900	500	2300	400		
	20	4500	750	3500	600	2900	500	2300	400		
	40	4300	800	3600	600	3000	550	2400	400		
	60	3900	800	3500	650	3100	550	2400	450		
	90	3500	800	3100	650	2800	550	2500	450		
140x35	10	3300	550	2600	400	2100	350	1700	300		
	20	3300	550	2600	400	2200	350	1800	300		
	40	3400	550	2700	450	2200	350	1800	300		
	60	3400	550	2800	450	2300	350	1800	300		
	90	3000	550	2600	450	2400	400	1900	300		
140x45	10	3700	600	2900	500	2400	400	2000	300		
	20	3800	600	3000	500	2500	400	2000	300		
	40	3900	600	3100	500	2500	400	2000	350		
	60	3700	650	3100	500	2600	450	2100	350		
	90	3200	650	2900	500	2600	450	2200	350		
140x70	10	4700	750	3700	600	3100	500	2400	400		
	20	4700	750	3700	600	3100	500	2500	400		
	40	4700	800	3800	650	3200	550	2500	400		
	60	4200	800	3700	650	3300	550	2600	450		
	90	3700	800	3300	650	3000	550	2600	450		
140x90	10	5200	850	4100	700	3500	600	2700	450		
	20	5300	850	4200	700	3500	600	2700	450		
	40	5000	900	4300	700	3600	600	2800	500		
	60	4500	900	4000	700	3700	600	2900	500		
	90	4000	950	3600	750	3300	650	2900	500		
170x35	10	4100	600	3200	500	2600	400	2100	300		
	20	4100	650	3200	500	2700	400	2100	300		
	40	4200	650	3300	500	2800	450	2200	350		
	60	4100	650	3400	500	2800	450	2300 _s	350		
	90	3600	650	3200	550	2900 _s	450	2300 ₁₅	350		
170x45	10	4600	700	3600	550	3000	500	2400	350		
	20	4600	700	3700	550	3100	500	2400	400		
	40	4800	750	3800	600	3200	500	2500	400		
	60	4400	750	3900	600	3200	500	2500	400		
	90	3900	750	3500	600	3200	500	2600 _s	400		

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Overhang (mm).
- ii) The above table was based on a Batten Spacing of 900.
- iii) Minimum BackSpan = 200 % of Overhang.
- iv) Maximum Overhang = 50 % of Backspan.
- v) Maximum BirdsMouth Depth = 30.00% of depth.
- vi) End bearing lengths = 35 mm at end supports and 35 mm at internal supports for continous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 35 mm at internal supports.
- vii) This Table may also be used for pergola or verandah rafters/purlins

Table 10 (cont)

Rafters or Purlins Supporting Roof and Ceiling Loads

Size DxB (mm)	Roof & Ceiling Mass (kg/m ²)	Rafter Spacing (mm)									
		600		900		1200		1800			
		Maximum Rafter Span + Overhang (mm)									
		Span	O/H	Span	O/H	Span	O/H	Span	O/H		
Continuous Span											
170x70	10	5700	900	4600	700	3800	600	3000	500		
	20	5800	900	4600	700	3900	600	3000	500		
	40	5600	950	4700	750	4000	650	3100	500		
	60	5000	950	4500	750	4100	650	3200	500		
	90	4500	950	4000	750	3700	650	3200	500		
170x90	10	6400	1000	5100	800	4300	700	3300	550		
	20	6500	1000	5200	800	4300	700	3300	550		
	40	5900	1050	5300	850	4500	700	3400	550		
	60	5400	1050	4800	850	4500	700	3500	550		
	90	4800	1100	4300	850	4000	750	3500	600		
190x35	10	4600	700	3600	550	3000	450	2400	350		
	20	4600	700	3700	550	3100	450	2400	350		
	40	4700	700	3700	550	3100	450	2500	350		
	60	4600	700	3900	550	3200	450	2500 ₁₀	350		
	90	4100	750	3600	600	3300 ₁₀	500	2600 ₂₀	400		
190x45	10	5200	800	4100	600	3400	500	2700	400		
	20	5200	800	4200	600	3500	550	2700	400		
	40	5400	800	4300	650	3600	550	2800	400		
	60	4900	800	4400	650	3700	550	2900 ₅	450		
	90	4400	850	3900	650	3500	550	3000 ₁₅	450		
190x70	10	6400	1000	5100	800	4300	650	3300	500		
	20	6500	1000	5200	800	4400	650	3400	550		
	40	6200	1000	5300	800	4500	700	3400	550		
	60	5600	1050	5000	800	4600	700	3500	550		
	90	5000	1050	4500	850	4100	700	3600	550		
190x90	10	7200	1100	5700	900	4800	750	3700	600		
	20	7200	1100	5800	900	4900	750	3800	600		
	40	6500	1150	6000	900	5000	750	3900	600		
	60	6000	1150	5400	950	5000	800	4000	600		
	90	5400	1200	4800	950	4400	800	3900	650		
240x35	10	5800	850	4600	650	3900	550	3000	400		
	20	5900	850	4700	650	4000	550	3100 ₅	450		
	40	6000	850	4800	650	4100 ₁₀	550	3100 ₁₅	450		
	60	5700	850	4900 ₁₀	700	4200 ₁₅	550	3200 ₂₅	450		
	90	5100	900	4500 ₁₀	700	4100 ₂₅	600	3300 ₄₅	450		

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Overhang (mm).
- ii) The above table was based on a Batten Spacing of 900.
- iii) Minimum BackSpan = 200 % of Overhang.
- iv) Maximum Overhang = 50 % of Backspan.
- v) Maximum BirdsMouth Depth = 30.00% of depth.
- vi) End bearing lengths = 35 mm at end supports and 35 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 35 mm at internal supports.
- vii) This Table may also be used for pergola or verandah rafters/purlins

Table 10 (cont)

Rafters or Purlins Supporting Roof and Ceiling Loads

Size Dx B (mm)	Roof & Ceiling Mass (kg/m ²)	Rafter Spacing (mm)									
		600		900		1200		1800			
		Maximum Rafter Span + Overhang (mm)									
		Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H
Continuous Span											
240x45	10	6600	950	5300	750	4400	650	3400	500		
	20	6700	950	5300	750	4500	650	3500	500		
	40	6800	1000	5500	750	4600	650	3500 ₁₀	500		
	60	6200	1000	5500	800	4700 ₁₀	650	3600 ₂₀	500		
	90	5500	1000	4900 ₅	800	4500 ₁₅	700	3800 ₃₅	550		
240x70	10	7200	1200	6600	950	5600	800	4300	650		
	20	7200	1200	6600	950	5600	800	4400	650		
	40	7200	1250	6800	1000	5800	850	4500	650		
	60	7000	1250	6300	1000	5800	850	4600 ₅	650		
	90	6300	1300	5600	1000	5200	850	4600 ₁₅	700		
240x90	10	7200	1350	7200	1050	6200	900	4900	700		
	20	7200	1350	7200	1100	6300	900	4900	750		
	40	7200	1400	7200	1100	6500	950	5000	750		
	60	7200	1400	6700	1100	6200	950	5200 ₅	750		
	90	6700	1450	6000	1150	5600	1000	4900 ₁₀	750		
290x45	10	7200	1100	6400	850	5400	750	4200 ₁₀	550		
	20	7200	1100	6500	900	5500 ₅	750	4300 ₁₅	600		
	40	7200	1150	6700 ₁₀	900	5700 ₁₅	750	4400 ₂₅	600		
	60	7200	1150	6600 ₁₅	900	5800 ₂₅	750	4500 ₄₀	600		
	90	6600	1200	5900 ₁₅	950	5400 ₃₀	800	4700 ₅₅	600		
290x70	10	7200	1400	7200	1100	6800	950	5300	750		
	20	7200	1400	7200	1100	6900	950	5400 ₅	750		
	40	7200	1450	7200	1150	7100 ₅	950	5500 ₁₅	750		
	60	7200	1450	7200	1150	6900 ₁₀	1000	5700 ₂₅	750		
	90	7200	1500	6700	1200	6200 ₁₀	1000	5500 ₃₀	800		
290x90	10	7200	1600	7200	1250	7200	1050	6000	850		
	20	7200	1600	7200	1250	7200	1050	6100	850		
	40	7200	1650	7200	1300	7200	1100	6200 ₁₀	850		
	60	7200	1650	7200	1300	7200	1100	6400 ₁₅	900		
	90	7200	1700	7200	1350	6700 ₅	1150	5900 ₂₀	900		

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Overhang (mm).
- ii) The above table was based on a Batten Spacing of 900.
- iii) Minimum BackSpan = 200 % of Overhang.
- iv) Maximum Overhang = 50 % of Backspan.
- v) Maximum BirdsMouth Depth = 30.00% of depth.
- vi) End bearing lengths = 35 mm at end supports and 35 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 35 mm at internal supports.
- vii) This Table may also be used for pergola or verandah rafters/purlins

Table 11

Roof Beams Supporting Roof and Ceiling Loads

Size Dx B (mm)	Roof Mass (kg/m ²)	Roof Load Width (mm)									
		1500		3000		4500		6000		7500	
		Maximum Beam Span & Overhang (mm)									
		Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H
170x45	10	2600	1050	1900	750	1500	600	1300	550	1200	500
	20	2700	1050	1900	750	1500	600	1300	550	1200	500
	40	2700	1100	1900	750	1600	650	1400	550	1200 ₅	500
	60	2400	1100	1900	800	1600	650	1400 ₅	550	1200 ₁₀	500
	90	2100	1000	1700	800	1400	650	1300 ₅	550	1200 ₁₅	500 ₁₅
170x70	10	3300	1300	2300	900	1900	750	1600	650	1400	600
	20	3300	1300	2300	950	1900	750	1600	650	1500	600
	40	3100	1350	2400	950	1900	800	1700	650	1500	600
	60	2800	1350	2200	950	1900	800	1700	700	1500	600
	90	2500	1200	2000	1000	1700	800	1500	700	1400	650
170x90	10	3700	1450	2600	1050	2100	850	1800	750	1600	650
	20	3800	1450	2600	1050	2100	850	1800	750	1600	650
	40	3400	1500	2700	1050	2200	850	1900	750	1700	650
	60	3000	1500	2400	1050	2100	850	1900	750	1700	700
	90	2700	1300	2100	1000	1800	900	1700	800	1500	700
190x45	10	3000	1200	2100	850	1700	700	1500	600	1300	550
	20	3000	1200	2100	850	1700	700	1500	600	1300 ₅	550
	40	3100	1200	2200	850	1800	700	1500 ₅	600	1400 ₁₀	550
	60	2700	1250	2100	850	1800	700	1600 ₁₀	600	1400 ₁₅	550
	90	2400	1200	1900	900	1600 ₅	750	1500 ₁₀	650	1300 ₂₀	550 ₂₀
190x70	10	3700	1450	2600	1050	2100	850	1800	750	1600	650
	20	3800	1450	2600	1050	2100	850	1800	750	1600	650
	40	3500	1500	2700	1050	2200	850	1900	750	1700	700
	60	3100	1500	2500	1050	2100	900	1900	750	1700 ₅	700
	90	2800	1400	2200	1100	1900	900	1700	800	1600 ₅	700
190x90	10	4200	1650	2900	1150	2300	950	2000	800	1800	750
	20	4200	1650	2900	1150	2400	950	2000	800	1800	750
	40	3800	1700	3000	1150	2400	950	2100	850	1900	750
	60	3400	1700	2700	1200	2300	1000	2100	850	1900	750
	90	3000	1500	2400	1200	2100	1000	1900	850	1700	800

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Overhang (mm).
- ii) Minimum BackSpan = 200 % of Overhang.
- iii) Maximum Overhang = 50 % of Backspan.
- iv) End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports.
- v) Rafter/Purlin Spacing up to 1800mm.
- vi) This Table may also be used for pergola or verandah beams.

Table 11 (cont)

Roof Beams Supporting Roof and Ceiling Loads

Size DxB (mm)	Roof Mass (kg/m ²)	Roof Load Width (mm)									
		1500		3000		4500		6000		7500	
		Maximum Beam Span & Overhang (mm)									
		Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H
Single Span											
240x45	10	3800	1500	2600	1050	2200	850	1900 ₅	750	1700 ₁₀	700
	20	3900	1500	2700	1050	2200	900	1900 ₅	750	1700 ₁₀	700
	40	3800	1550	2700	1100	2200 ₅	900	1900 ₁₀	750	1700 ₂₀	700
	60	3400	1550	2700	1100	2300 ₁₀	900	2000 ₂₀	800	1800 ₂₅	700
	90	3000	1500	2400	1150	2100 ₁₅	950	1900 ₂₅	800	1700 ₃₀	700 ₃₀
240x70	10	4800	1900	3300	1300	2700	1050	2300	950	2100	850
	20	4900	1900	3300	1300	2700	1100	2300	950	2100 ₅	850
	40	4400	1950	3400	1350	2800	1100	2400 ₅	950	2100 ₁₀	850
	60	3900	1950	3100	1350	2700	1100	2400 ₁₀	950	2200 ₁₅	850
	90	3500	1700	2800	1400	2400	1150	2200 ₁₀	1000	2000 ₁₅	900
240x90	10	5400	2150	3600	1450	3000	1200	2600	1050	2300	950
	20	5500	2150	3700	1450	3000	1200	2600	1050	2300	950
	40	4700	2200	3800	1500	3100	1200	2700	1050	2400 ₅	950
	60	4200	2100	3400	1500	2900	1250	2600 ₅	1050	2400 ₁₀	950
	90	3800	1900	3000	1500	2600	1250	2400 ₅	1100	2200 ₁₀	1000
290x45	10	4700	1850	3200	1300	2600 ₅	1050	2300 ₁₀	900	2000 ₂₀	800
	20	4800	1850	3300	1300	2700 ₁₀	1050	2300 ₁₅	900	2100 ₂₀	850
	40	4600	1900	3300 ₅	1300	2700 ₁₅	1100	2400 ₂₅	950	2100 ₃₀	850
	60	4100	1950	3300 ₁₀	1350	2800 ₂₀	1100	2400 ₃₀	950	2200 ₄₀	850
	90	3700	1800	2900 ₁₀	1350	2500 ₂₅	1100	2300 ₃₅	950	2100 ₄₅	850 ₄₅
290x70	10	5900	2350	4000	1600	3200	1300	2800 ₅	1100	2500 ₁₀	1000
	20	6000	2350	4000	1600	3300	1300	2800 ₅	1150	2500 ₁₀	1000
	40	5300	2400	4100	1600	3400 ₅	1300	2900 ₁₀	1150	2600 ₂₀	1050
	60	4700	2300	3800	1650	3300 ₁₀	1350	2900 ₂₀	1150	2700 ₂₅	1050
	90	4200	2100	3400	1700	2900 ₁₀	1400	2600 ₂₀	1200	2400 ₂₅	1050
290x90	10	6600	2600	4400	1750	3600	1450	3100	1250	2800 ₅	1100
	20	6500	2650	4500	1750	3700	1450	3200 ₅	1250	2800 ₅	1150
	40	5600	2700	4600	1800	3700	1450	3200 ₁₀	1300	2900 ₁₅	1150
	60	5100	2550	4100	1850	3600 ₅	1500	3200 ₁₀	1300	2900 ₂₀	1150
	90	4600	2300	3700	1850	3200 ₅	1550	2900 ₁₅	1350	2600 ₂₀	1200

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Overhang (mm).
- ii) Minimum BackSpan = 200 % of Overhang.
- iii) Maximum Overhang = 50 % of Backspan.
- iv) End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports.
- v) Rafter/Purlin Spacing up to 1800mm.
- vi) This Table may also be used for pergola or verandah beams.

Table 11 (cont)

Roof Beams Supporting Roof and Ceiling Loads

Size Dx B (mm)	Roof Mass (kg/m ²)	Roof Load Width (mm)									
		1500		3000		4500		6000		7500	
		Maximum Beam Span & Overhang (mm)									
		Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H
170x45	10	2600	1050	1900	750	1500	600	1300	550	1100	500
	20	2700	1050	1900	750	1500	600	1300	550	1100	500
	40	2700	1100	1900	750	1600	650	1300	550	1200 ₁₀	500
	60	2800	1100	2000	800	1600	650	1400 ₁₀	550	1200 ₂₀	500
	90	2900	1150	2100	800	1700 ₁₅	650	1400 ₂₅	550	1200 ₄₀	500 ₄₀
170x70	10	3300	1300	2300	900	1900	750	1600	650	1400	600
	20	3300	1300	2300	950	1900	750	1600	650	1500	600
	40	3400	1350	2400	950	1900	800	1700	650	1500	600
	60	3500	1350	2400	950	2000	800	1700	700	1500 ₅	600
	90	3400	1400	2500	1000	2000	800	1800 ₁₀	700	1600 ₂₀	650
170x90	10	3700	1450	2600	1050	2100	850	1800	750	1600	650
	20	3800	1450	2600	1050	2100	850	1800	750	1600	650
	40	3900	1500	2700	1050	2200	850	1900	750	1700	650
	60	4000	1500	2700	1050	2200	850	1900	750	1700	700
	90	3700	1550	2800	1100	2300	900	2000	800	1700 ₁₀	700
190x45	10	3000	1200	2100	850	1700	700	1400	600	1200	550
	20	3000	1200	2100	850	1700	700	1500	600	1300 ₅	550
	40	3100	1200	2200	850	1800	700	1500 ₁₀	600	1300 ₂₀	550
	60	3200	1250	2200	850	1800 ₅	700	1600 ₂₅	600	1300 ₃₅	550
	90	3300	1250	2300	900	1900 ₂₅	750	1600 ₄₀	650	1400 ₅₅	550 ₅₅
190x70	10	3700	1450	2600	1050	2100	850	1800	750	1600	650
	20	3800	1450	2600	1050	2100	850	1800	750	1600	650
	40	3900	1500	2700	1050	2200	850	1900	750	1700	700
	60	4000	1500	2700	1050	2200	900	1900	750	1700 ₁₅	700
	90	3800	1550	2800	1100	2300 ₅	900	2000 ₂₀	800	1700 ₃₀	700
190x90	10	4200	1650	2900	1150	2300	950	2000	800	1800	750
	20	4200	1650	2900	1150	2400	950	2000	800	1800	750
	40	4400	1700	3000	1150	2400	950	2100	850	1900	750
	60	4500	1700	3100	1200	2500	1000	2200	850	1900 ₅	750
	90	4100	1700	3100	1200	2600	1000	2200 ₁₀	850	1900 ₂₀	800

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Overhang (mm).
- ii) Minimum BackSpan = 200 % of Overhang.
- iii) Maximum Overhang = 50 % of Backspan.
- iv) End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports.
- v) Rafter/Purlin Spacing up to 1800mm.
- vi) This Table may also be used for pergola or verandah beams.

Table 11 (cont)

Roof Beams Supporting Roof and Ceiling Loads

Size DxB (mm)	Roof Mass (kg/m ²)	Roof Load Width (mm)									
		1500		3000		4500		6000		7500	
		Maximum Beam Span & Overhang (mm)									
		Span	O/H	Span	O/H	Span	O/H	Span	O/H	Span	O/H
240x45	10	3800	1500	2600	1050	2200	850	1800 ₁₀	750	1600 ₂₀	700
	20	3900	1500	2700	1050	2200 ₅	900	1800 ₂₀	750	1600 ₂₅	700
	40	4000	1550	2700	1100	2200 ₂₀	900	1900 ₃₅	750	1700 ₅₀	700
	60	4100	1550	2800 ₁₀	1100	2300 ₃₀	900	2000 ₅₀	800	1700 ₇₀	700
	90	4100	1600	2900 ₂₅	1150	2400 ₅₅	950	2000 ₈₀	800	1700 ₉₅	700 ₉₅
240x70	10	4800	1900	3300	1300	2700	1050	2300	950	2100 ₅	850
	20	4900	1900	3300	1300	2700	1100	2300	950	2100 ₁₀	850
	40	5000	1950	3400	1350	2800	1100	2400 ₁₅	950	2100 ₃₀	850
	60	5100	1950	3500	1350	2800 ₁₀	1100	2500 ₂₅	950	2200 ₄₀	850
	90	4800	1900	3600 ₅	1400	2900 ₂₅	1150	2500 ₄₅	1000	2200 ₆₅	900
240x90	10	5400	2150	3600	1450	3000	1200	2600	1050	2300	950
	20	5500	2150	3700	1450	3000	1200	2600	1050	2300	950
	40	5600	2200	3800	1500	3100	1200	2700 ₅	1050	2400 ₁₅	950
	60	5800	2200	3900	1500	3200	1250	2700 ₁₅	1050	2500 ₃₀	950
	90	5200	2050	4000	1550	3200 ₁₅	1250	2800 ₃₀	1100	2500 ₅₀	1000
290x45	10	4700	1850	3200	1300	2600 ₁₅	1050	2200 ₃₀	900	1900 ₄₀	800
	20	4800	1850	3300	1300	2700 ₂₅	1050	2200 ₃₅	900	1900 ₅₀	850
	40	4900	1900	3300 ₁₅	1300	2700 ₄₀	1100	2300 ₆₀	950	2000 ₈₀	850
	60	5000	1950	3400 ₃₀	1350	2800 ₆₀	1100	2400 ₆₅	950	2100 ₁₀₀	850
	90	5000 ₁₀	2000	3500 ₅₀	1350	2900 ₉₀	1100	2500 ₁₁₅	950	2100 ₁₂₅	850 ₁₂₅
290x70	10	5900	2350	4000	1600	3200	1300	2800 ₁₀	1100	2500 ₂₅	1000
	20	6000	2350	4000	1600	3300 ₅	1300	2800 ₂₀	1150	2500 ₃₅	1000
	40	6100	2400	4100	1600	3400 ₂₀	1300	2900 ₃₅	1150	2600 ₅₀	1050
	60	6300	2400	4200 ₁₀	1650	3500 ₃₀	1350	3000 ₅₀	1150	2700 ₇₅	1050
	90	5700	2200	4300 ₂₅	1700	3500 ₅₀	1400	3000 ₈₀	1200	2700 ₁₀₀	1050
290x90	10	6600	2600	4400	1750	3600	1450	3100	1250	2800 ₁₅	1100
	20	6700	2650	4500	1750	3700	1450	3200 ₁₀	1250	2800 ₂₀	1150
	40	6900	2700	4600	1800	3700 ₁₀	1450	3200 ₂₅	1300	2900 ₄₀	1150
	60	6900	2550	4700	1850	3800 ₂₀	1500	3300 ₄₀	1300	3000 ₅₅	1150
	90	6200	2350	4800 ₁₅	1850	3900 ₄₀	1550	3400 ₆₀	1350	3000 ₈₀	1200

NOTES :

- i) D = member depth, B = member breadth, NS = not suitable, O/H = Overhang (mm).
- ii) Minimum BackSpan = 200 % of Overhang.
- iii) Maximum Overhang = 50 % of Backspan.
- iv) End bearing lengths = 35 mm at end supports and 70 mm at internal supports for continuous members. Subscript values indicate the minimum additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports.
- v) Rafter/Purlin Spacing up to 1800mm.
- vi) This Table may also be used for pergola or verandah beams.