

RECYCLED HARDWOOD *SPAN TABLES*

SUPPLEMENT 3

Wind Classifications N1, N2 and N3

Recycled Species Group C 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 C - 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 C, RG1, the tables in this Supplement apply to Recycled Timber Species Group B - 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	680	480	NS	NS
35x90	740	580	320	NS
35x120	820	760	420	NS
35x140	860	860	500	340
45x70	900	800	440	NS
45x90	980	960	540	380
45x120	1080	1060	720	500
45x140	1140	1120	840	580

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	1500	400	1000	300	NS	NS	1500	400	1000	300	NS	NS
90x70	1800	500	1300	300	NS	NS	1800	500	1300	300	NS	NS
90x90	2000	600	1400	400	1000	300	2000	600	1400	400	1000	300
120x45	2000	600	1400	400	1000	300	2000	600	1400	400	NS	NS
120x70	2500	700	1700	500	1200	300	2500	700	1700	500	1200	300
120x90	2700	800	1900	500	1300	300	2700	800	1900	500	1300	300
140x45	2400	700	1600	400	1100	300	2400	700	1600	400	1100	300
140x70	2900	800	2000	600	1400	400	2900	800	2000	600	1400	400
140x90	3200	900	2300	600	1600	400	3200	900	2300	600	1600	400
170x45	2900	800	2000	600	1400	400	2900	800	2000	600	1300 ₅	300 ₅
170x70	3400	1000	2500	700	1700	500	3500	1000	2500	700	1700	500
170x90	3700	1100	2800	800	1900	500	3900	1100	2800	800	1900	500
190x45	3200	900	2300	600	1600 ₅	400 ₅	3200	900	2300	600	1500 ₂₀	400 ₂₀
190x70	3700	1100	2800	800	1900	500	3900	1100	2800	800	1900	500
190x90	4000	1200	3100	900	2200	600	4400	1300	3100	900	2200	600
240x45	4000	1200	2900	800	2000 ₂₀	600 ₂₀	4100	1200	2900 ₁₅	800	1800 ₆₀	500 ₆₀
240x70	4500	1300	3500	1000	2500 ₁₀	700 ₁₀	5000	1500	3500	1000	2500 ₄₀	700 ₄₀
240x90	4800	1400	3900	1100	2700	800	5500	1600	3900	1100	2700 ₂₀	800 ₂₀
290x45	4600	1300	3500 ₁₀	1000 ₁₀	2400 ₃₅	700 ₃₅	4900	1400	3500 ₄₅	1000 ₄₅	2200 ₉₀	600 ₉₀
290x70	5200	1500	4300	1200	3000 ₂₀	900 ₂₀	6000	1800	4300 ₁₀	1200	3000 ₇₀	900 ₇₀
290x90	5500	1600	4600	1300	3300 ₁₅	900 ₁₅	6600	1900	4700	1400	3300 ₅₅	900 ₅₅

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	1500	400	1400	400	1400	400	1800	500	1700	500	1600	400
90x45	1700	500	1600	400	1600	400	2100	600	1900	500	1900	500
120x35	2400	700	2200	600	2100	600	2900	800	2700	800	2500	700
120x45	2700	800	2500	700	2500	700	3300	900	3100	850	2900	800
140x35	3000	900	2800	800	2700	800	3500	1050	3400	900	3000	850
140x45	3400	1000	3200	900	3100	900	3900	1150	3700	1000	3400	900
170x35	3800	1100	3600	1000	3400	1000	4300	1250	4100	1100	3600	1000
170x45	4100	1200	3900	1100	3700	1100	4700	1400	4500	1200	4100	1100
190x35	4200	1200	4000	1200	3700	1100	4800	1400	4600	1250	4100	1150
190x45	4600	1300	4300	1200	4000	1200	5300	1550	5000	1350	4500	1250
240x35	5300	1500	4800	1400	4500	1300	6100	1750	5800	1550	5100	1400
240x45	5700	1700	5100	1500	4800	1400	6700	1950	6300	1700	5700	1550
290x45	6500	1900	5900	1700	5500	1600	7200	2100	7200	2050	6900	1850

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	3400	3400	3200	3000	2800	2500
190x45	3800	3800	3500	3200	3000	2700
240x35	4400	4200	3900	3700	3500	3200
240x45	4600	4500	4200	3900	3800	3500
290x45	5300	5100	4800	4500	4300	4000

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	800
40x240	900
40x290	1000
45x240	1100
45x290	1200
50x240	1300
50x290	1500
60x240	1800
60x290	1900

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	3300	2300	1600	2300	2000	1900	1500	1600	1500	1400	1200
90x90	4800	4800	3700	2600	3700	3300	3000	2500	2600	2500	2300	2100
120x120	4800	4800	4800	4700	4800	4800	4800	4400	4600	4400	4200	3800
140x140	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800	4800
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	2500	1800	NS	2300	1800	1500	NS	1600	1300	NS	NS
90x90	4800	4100	2900	2100	3700	3000	2500	2000	2600	2300	2100	1700
120x120	4800	4800	4800	3700	4800	4800	4500	3500	4600	4100	3700	3200
140x140	4800	4800	4800	4800	4800	4800	4800	4800	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

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			
70x70	2400	1100	NS	NS	NS	NS	NS	NS	NS
	2700	1400	1200	1100	NS	1100	NS	NS	NS
70x90	2400	1000	NS	NS	NS	NS	NS	NS	NS
	2700	1800	1600	1500	1300	1600	1300	1100	NS
70x120	2400	1400	1300	1100	1000	1200	900	NS	NS
	2700	1000	900	NS	NS	NS	NS	NS	NS
	3000	2200	1900	1700	1600	1800	1500	1300	1100
70x140	2400	1700	1500	1400	1200	1500	1200	900	NS
	2700	1200	1100	1000	NS	1100	NS	NS	NS
	3000	2100	1800	1700	1500	1800	1500	1300	1100
90x70	2400	1600	1500	1300	1200	1400	1200	900	NS
	2700	1200	1100	1000	NS	1100	NS	NS	NS
	3000	2600	2300	2100	1900	2200	1800	1600	1500
90x90	2400	2000	1800	1600	1500	1700	1500	1300	1100
	2700	1500	1400	1300	1200	1400	1100	900	NS
	3000	3500	3100	2800	2500	3000	2500	2200	1900
90x120	2400	2700	2400	2200	2000	2300	1900	1700	1500
	2700	2200	1900	1700	1600	1800	1600	1400	1200
	3000	1100	1100	1000	1000	1000	1000	NS	NS
	3600	4100	3700	3300	3000	3500	3000	2600	2300
90x140	2400	3200	2800	2600	2300	2700	2300	2000	1700
	2700	2600	2300	2000	1800	2200	1800	1600	1400
	3000	1400	1300	1200	1200	1300	1200	1000	NS
	3600	4100	3800	3500	3200	3700	3200	2800	2500
120x70	2400	3200	2900	2700	2500	2800	2500	2200	1900
	2700	2600	2300	2100	2000	2300	2000	1700	1600
	3000	1600	1500	1400	1300	1400	1300	1200	1000
	3600	4800	4700	4300	4000	4600	4000	3500	3200
120x90	2400	4000	3700	3400	3100	3600	3100	2700	2400
	2700	3200	2900	2700	2500	2800	2500	2200	1900
	3000	2100	2000	1800	1600	1900	1600	1500	1300
	3600	1100	1100	1000	1000	1000	1000	1000	NS
	4200	4800	4700	4300	4000	4600	4000	3500	3200

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 20 kN.
- iv) Mullion Spacing is half the width of opening either side of mullion, or for mullions/studs at side of opening, half opening width.

Table 7 (cont)

**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			
120x120	2400	4800	4800	4800	4800	4800	4800	4700	4200
	2700	4800	4800	4500	4100	4800	4100	3700	3300
	3000	4300	3900	3600	3300	3800	3300	2900	2600
	3600	2900	2700	2400	2200	2600	2200	2000	1800
	4200	1500	1500	1500	1500	1500	1500	1300	1200
120x140	2400	4800	4800	4800	4800	4800	4800	4800	4800
	2700	4800	4800	4800	4800	4800	4800	4300	3900
	3000	4800	4600	4200	3900	4500	3900	3500	3100
	3600	3400	3100	2900	2700	3000	2600	2300	2100
	4200	1800	1800	1800	1800	1800	1800	1600	1500
	4800	900	900	900	900	900	900	900	900
140x70	2400	4800	4800	4800	4600	4800	4600	4100	3800
	2700	4600	4200	3900	3700	4100	3700	3300	3000
	3000	3700	3400	3100	2900	3300	2900	2600	2300
	3600	2500	2300	2100	2000	2200	2000	1700	1600
	4200	1400	1400	1300	1300	1400	1300	1200	1100
140x90	2400	4800	4800	4800	4800	4800	4800	4800	4700
	2700	4800	4800	4800	4600	4800	4600	4100	3700
	3000	4600	4300	3900	3700	4100	3700	3300	2900
	3600	3100	2900	2700	2500	2800	2500	2200	2000
	4200	1800	1800	1800	1700	1800	1700	1500	1400
	4800	900	900	900	900	900	900	900	900
140x120	2700	4800	4800	4800	4800	4800	4800	4800	4800
	3000	4800	4800	4800	4800	4800	4800	4400	4000
	3600	4200	3900	3600	3300	3800	3300	3000	2700
	4200	2500	2500	2500	2300	2500	2300	2100	1900
	4800	900	900	900	900	900	900	900	900
140x140	2700	4800	4800	4800	4800	4800	4800	4800	4800
	3000	4800	4800	4800	4800	4800	4800	4800	4700
	3600	4800	4600	4200	3900	4400	3900	3500	3200
	4200	3000	3000	3000	2800	3000	2800	2500	2300
	4800	900	900	900	900	900	900	900	900

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 20 kN.
- iv) Mullion Spacing is half the width of opening either side of mullion, or for mullions/studs at side of opening, half opening width.

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	2400	2400	1900	1900	1600	1600	1500	1300	1400	NS	
140x45	2600	2600	2100	2000	1800	1800	1600	1500	1500	1400	
140x70	3000	3000	2400	2400	2100	2100	1900	1900	1700	1700	
140x90	3100	3100	2600	2600	2300	2300	2100	2100	1900	1900	
170x35	2900	2900	2300	2300	2000	2000	1800	1800	1700	1500	
170x45	3100	3100	2500	2600	2200	2200	2000	2000	1800	1800	
170x70	3400	3400	2900	2900	2600	2600	2300	2300	2200	2100	
170x90	3600	3600	3100	3100	2800	2800	2500	2600	2300	2400	
190x35	3100	3100	2600	2600	2200	2200	2100	2000	1900	1700	
190x45	3400	3300	2800	2800	2500	2500	2200	2200	2100	2000	
190x70	3700	3700	3200	3100	2900	2900	2600	2700	2400	2400	
190x90	3900	3900	3400	3300	3100	3000	2800	2800	2600	2700	
240x35	3800	3700	3200	3200	2900	2900	2600	2600	2400	2400	
240x45	4000	4000	3400	3400	3100	3100	2800	2800	2600	2700	
240x70	4400	4400	3800	3700	3400	3400	3200	3200	3000	3000	
240x90	4600	4600	4000	4000	3600	3600	3400	3400	3200	3200	
290x45	4600	4600	3900	3900	3600	3500	3300	3300	3100	3100	
290x70	5000	5000	4300	4300	4000	3900	3700	3700	3500	3500	
290x90	5300	5300	4600	4600	4200	4200	3900	3900	3700	3700	
	Continuous Span										
140x35	3100	3100	2600	2500	2100	2000	1600	1500	1600	1200	
140x45	3300	3300	2800	2800	2300	2300	2000	2000	1600	1600	
140x70	3700	3700	3100	3100	2800	2800	2500	2600	2200	2200	
140x90	3900	3900	3300	3300	3000	3000	2800	2800	2500	2600	
170x35	3600	3600	3100	3000	2600	2600	2200	1700	1700	1500	
170x45	3900	3800	3300	3200	2900	2900	2500	2600	2200	1900	
170x70	4300	4300	3600	3600	3300	3300	3100	3000	2700	2800	
170x90	4500	4500	3900	3900	3500	3500	3300	3300	3000	3000	
190x35	3900	3900	3300	3300	2800	2900	2400	2600 ₁₀	2100 ₁₅	1600 ₁₀	
190x45	4200	4200	3600	3500	3200	3200	2800	2800	2500 ₅	2600 ₁₀	
190x70	4600	4600	4000	3900	3600	3600	3400	3300	3100	3000	
190x90	4900	4900	4200	4200	3800	3800	3600	3600	3400	3300	
240x35	4700	4700	4000	4000	3600 ₁₅	3500 ₁₅	3100 ₃₀	3100 ₃₀	2500 ₃₀	2800 ₄₅	
240x45	5000	5000	4300	4200	3800	3800	3500 ₂₀	3500 ₁₅	3100 ₃₀	3100 ₂₅	
240x70	5500	5500	4700	4700	4300	4300	4000	4000	3800 ₅	3800 ₅	
240x90	5800	5800	5000	5000	4600	4600	4300	4300	4000	4000	
290x45	5700	5700	4900	4900	4400 ₁₅	4400 ₁₀	4100 ₃₅	4100 ₃₅	3800 ₅₅	3500 ₄₅	
290x70	6300	6300	5400	5400	4900	5000	4600 ₅	4600 ₅	4400 ₂₀	4400 ₂₀	
290x90	6500	6600	5700	5700	5200	5300	4900	4900	4700 ₅	4700 ₁₀	

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	1800	1800	1400	1300	1200	NS	NS	NS	NS	NS
140x45	2000	2000	1600	1400	1400	1200	1200	NS	NS	NS
140x70	2300	2300	1800	1800	1600	1500	1400	1300	1400	NS
140x90	2500	2600	2000	2000	1700	1700	1600	1500	1500	1300
170x35	2200	2200	1700	1700	1500	1400	1400	NS	1300	NS
170x45	2400	2400	1900	1900	1700	1600	1500	1400	1400	NS
170x70	2800	2800	2200	2200	1900	1900	1800	1700	1600	1600
170x90	3000	3000	2400	2500	2100	2100	1900	1900	1800	1800
190x35	2500	2500	2000	1900	1700	1700	1500	1400	1400	NS
190x45	2700	2700	2200	2100	1900	1800	1700	1600	1600	1500
190x70	3100	3100	2500	2600	2200	2200	2000	1900	1800	1800
190x90	3300	3200	2700	2800	2400	2400	2200	2100	2000	2000
240x35	3100	3100	2500	2500	2200	2100	2000	1900	1800	1700
240x45	3300	3300	2700	2800	2400	2400	2200	2100	2000	2000
240x70	3700	3600	3100	3100	2800	2800	2500	2500	2300	2300
240x90	3900	3900	3300	3300	3000	3000	2800	2800	2600	2600
290x45	3800	3800	3200	3200	2900	2900	2600	2600	2400	2400
290x70	4200	4200	3600	3600	3300	3200	3000	3000	2800	2900
290x90	4500	4500	3800	3800	3500	3400	3200	3200	3100	3000
	Continuous Span									
140x35	2500	2500	1900	1800	1600	1400	1400	NS	NS	NS
140x45	2700	2700	2100	2000	1800	1600	1600	1300 ₅	NS	NS
140x70	3100	3000	2500	2500	2100	2100	1900	1800	1800	1600
140x90	3300	3200	2700	2700	2400	2400	2100	2100	2000	1900
170x35	3000	3000	2400	2400	2100	1600 ₅	1600 ₅	1300	1400 ₁₀	NS
170x45	3200	3100	2600	2600	2300	2200	1900	1600 ₅	1600	1300
170x70	3500	3500	3000	3000	2600	2600	2400	2400	2200	2100
170x90	3800	3800	3200	3100	2900	2900	2600	2600	2400	2400
190x35	3200	3200	2700	2600	2300 ₁₀	1700	1700 ₅	1400 ₁₀	1500 ₁₅	NS
190x45	3500	3400	2900	2900	2600	2500 ₅	2200 ₁₀	1700	1700 ₅	1400 ₅
190x70	3900	3800	3300	3200	3000	3000	2700	2700	2500	2500 ₅
190x90	4100	4100	3500	3500	3100	3100	3000	3000	2700	2700
240x35	3900	3800	3300 ₅	3200 ₅	3000 ₃₅	3000 ₃₅	2400 ₅₀	2400 ₄₅	1900 ₄₅	1900 ₄₅
240x45	4100	4100	3500	3500	3200 ₁₅	3100 ₁₅	2800 ₃₅	2900 ₄₀	2500 ₅₀	2700 ₆₀
240x70	4600	4600	3900	3900	3500	3500	3300 ₁₀	3300 ₁₀	3100 ₂₅	3100 ₂₅
240x90	4900	4900	4200	4200	3800	3700	3500	3500	3300 ₁₀	3300 ₁₀
290x45	4800	4700	4000	4000	3600 ₃₅	3600 ₃₀	3400 ₆₀	3200 ₅₅	3200 ₆₀	3000 ₆₀
290x70	5300	5300	4500	4500	4100	4100	3800 ₂₅	3800 ₂₀	3600 ₄₀	3600 ₄₅
290x90	5600	5600	4800	4800	4400	4300	4000 ₁₀	4000 ₅	3800 ₂₅	3800 ₂₅

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 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 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		
Single Span											
90x35	10	2400	500	2300	400	2200	350	2000	250		
	20	2300	500	2100	400	1900	350	1700	300		
	40	1900	500	1700	400	1500	350	1300	300		
	60	1700	450	1500	450	1300	350	1200	300		
	90	1500	450	1300	400	1200	400	1000	300		
90x45	10	3000	600	2700	450	2500	400	2200	300		
	20	2500	600	2200	450	2100	400	1800	300		
	40	2100	600	1800	500	1700	400	1500	350		
	60	1800	600	1600	500	1500	400	1300	350		
	90	1600	550	1400	500	1300	450	1100	350		
90x70	10	3300	700	3000	600	2800	500	2600	400		
	20	2800	750	2600	600	2400	500	2100	400		
	40	2400	750	2100	600	1900	500	1700	400		
	60	2100	750	1800	600	1700	550	1500	400		
	90	1800	800	1600	650	1500	550	1300	450		
90x90	10	3400	800	3200	650	3000	550	2700	450		
	20	3000	800	2700	650	2500	550	2300	450		
	40	2500	850	2300	650	2100	600	1800	450		
	60	2300	850	2000	700	1800	600	1600	450		
	90	2000	900	1800	700	1600	600	1400	500		
120x35	10	3700	650	3300	500	3100	450	2600	350		
	20	3100	650	2800	500	2500	450	2200	350		
	40	2500	650	2200	550	2000	450	1800	350		
	60	2200	700	2000	550	1800	450	1600	350		
	90	2000	700	1700	550	1600	500	1400	400		
120x45	10	3900	750	3500	600	3300	500	3000	400		
	20	3300	750	3000	600	2700	500	2400	400		
	40	2700	750	2400	600	2200	500	2000	400		
	60	2400	800	2100	600	2000	550	1700	400		
	90	2100	800	1900	650	1700	550	1500	450		
120x70	10	4200	900	3900	750	3700	650	3400	500		
	20	3700	950	3400	750	3100	650	2800	500		
	40	3100	950	2800	750	2600	650	2300	500		
	60	2800	1000	2500	800	2300	650	2000	550		
	90	2500	1000	2200	800	2000	700	1700	550		

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	4400	1000	4100	850	3900	700	3600	550		
	20	3900	1050	3600	850	3300	700	3000	550		
	40	3300	1050	3000	850	2800	750	2500	600		
	60	3000	1100	2700	900	2500	750	2200	600		
	90	2700	1150	2400	900	2200	800	1900	650		
140x35	10	4200	750	3800	600	3600	500	3100	400		
	20	3600	750	3200	600	3000	500	2600	400		
	40	3000	750	2600	600	2400	500	2100	400		
	60	2600	800	2300	600	2100	550	1800	400		
	90	2300	800	2000	650	1800	550	1600	450		
140x45	10	4400	850	4100	650	3800	550	3500	450		
	20	3800	850	3500	650	3200	550	2800	450		
	40	3200	850	2800	700	2600	600	2300	450		
	60	2800	900	2500	700	2300	600	2000	500		
	90	2500	950	2200	750	2000	650	1800	500		
140x70	10	4800	1050	4500	850	4200	700	3900	550		
	20	4200	1050	3900	850	3600	700	3200	600		
	40	3600	1100	3200	850	3000	750	2600	600		
	60	3200	1100	2900	900	2600	750	2300	600		
	90	2900	1150	2500	950	2300	800	2000	650		
140x90	10	5000	1150	4700	950	4500	800	4100	650		
	20	4500	1200	4100	950	3800	800	3500	650		
	40	3800	1200	3500	1000	3200	850	2900	650		
	60	3500	1250	3100	1000	2900	850	2500	700		
	90	3100	1300	2800	1050	2500	900	2200	700		
170x35	10	5000	850	4600	700	4300	600	3800	450		
	20	4300	850	3900	700	3600	600	3200	450		
	40	3600	900	3200	700	2900	600	2600	500		
	60	3200	900	2800	750	2600	600	2200	500		
	90	2800	950	2500	750	2200	650	2000	500		
170x45	10	5200	1000	4900	800	4600	650	4100	500		
	20	4600	1000	4100	800	3800	650	3400	550		
	40	3800	1000	3400	800	3200	700	2800	550		
	60	3400	1050	3000	850	2800	700	2400	550		
	90	3000	1100	2700	850	2400	750	2100	600		

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	5600	1250	5300	1000	5000	850	4600	650		
	20	5000	1250	4600	1000	4300	850	3900	700		
	40	4300	1250	3900	1000	3600	850	3200	700		
	60	3900	1300	3500	1050	3200	900	2800	700		
	90	3500	1350	3100	1100	2800	950	2500	750		
170x90	10	5800	1400	5500	1100	5300	950	4900	750		
	20	5300	1400	4900	1100	4600	950	4200	750		
	40	4600	1450	4200	1150	3900	1000	3500	800		
	60	4200	1450	3700	1150	3500	1000	3100	800		
	90	3700	1550	3300	1200	3100	1050	2700	850		
190x35	10	5500	950	5100	750	4800	650	4300	500		
	20	4800	950	4300	750	4000	650	3500	500		
	40	4000	1000	3500	800	3300	650	2900	500		
	60	3500	1000	3100	800	2900	700	2500	550		
	90	3100	1050	2800	850	2500	700	2200	550		
190x45	10	5700	1050	5400	850	5100	700	4600	550		
	20	5100	1100	4600	850	4300	750	3800	600		
	40	4300	1100	3800	900	3500	750	3100	600		
	60	3800	1150	3400	900	3100	800	2700	600		
	90	3400	1200	3000	950	2700	800	2400	650		
190x70	10	6100	1350	5800	1050	5500	900	5100	750		
	20	5500	1350	5100	1100	4800	950	4300	750		
	40	4800	1400	4300	1100	4000	950	3600	750		
	60	4300	1450	3900	1150	3600	1000	3200	800		
	90	3900	1500	3500	1200	3200	1000	2800	800		
190x90	10	6300	1500	6000	1200	5800	1050	5400	800		
	20	5800	1550	5400	1200	5100	1050	4600	850		
	40	5100	1600	4600	1250	4300	1050	3900	850		
	60	4600	1600	4200	1300	3900	1100	3400	900		
	90	4200	1700	3700	1350	3400	1150	3000	900		
240x35	10	6700	1150	6200	900	5900	750	5400	600		
	20	5900	1150	5400	900	5000	750	4500	600		
	40	5000	1200	4500	950	4100	800	3600	650		
	60	4500	1200	4000	950	3600	800	3200	650		
	90	4000	1250	3500	1000	3200	850	2800	700		

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		
240x45	10	7000	1300	6500	1050	6200	900	5700	700		
	20	6200	1300	5700	1050	5300	900	4800	700		
	40	5300	1350	4800	1050	4400	900	3900	700		
	60	4800	1400	4300	1100	3900	950	3500	750		
	90	4300	1450	3800	1150	3500	1000	3000	800		
240x70	10	7200	1650	7000	1300	6700	1100	6300	900		
	20	6700	1650	6300	1300	5900	1100	5400	900		
	40	5900	1700	5400	1350	5000	1150	4500	900		
	60	5400	1750	4900	1400	4500	1200	4000	950		
	90	4900	1850	4300	1450	4000	1250	3500	1000		
240x90	10	7200	1850	7200	1450	7000	1250	6600	1000		
	20	7000	1900	6600	1500	6200	1250	5700	1000		
	40	6200	1950	5700	1550	5400	1300	4800	1050		
	60	5700	2000	5200	1550	4800	1350	4300	1050		
	90	5200	2100	4700	1650	4300	1400	3800	1100		
290x45	10	7200	1500	7200	1200	7200	1000	6700	800		
	20	7200	1550	6700	1200	6300	1050	5700	800		
	40	6300	1600	5700	1250	5300	1050	4700	850		
	60	5700	1600	5100	1300	4700	1100	4200	850		
	90	5100	1700	4600	1350	4200	1150	3700	900		
290x70	10	7200	1950	7200	1550	7200	1300	7200	1000		
	20	7200	1950	7200	1550	7000	1300	6400	1050		
	40	7000	2000	6400	1600	6000	1350	5400	1050		
	60	6400	2050	5800	1650	5400	1400	4800	1100		
	90	5800	2150	5200	1700	4800	1450	4200	1150		
290x90	10	7200	2200	7200	1750	7200	1450	7200	1150		
	20	7200	2200	7200	1750	7200	1500	6800	1150		
	40	7200	2300	6800	1800	6400	1500	5800	1200		
	60	6800	2350	6200	1850	5800	1550	5200	1250		
	90	6200	2450	5600	1950	5200	1650	4600	1300		

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											
90x35	10	3200	500	2900	400	2400	350	2000	250		
	20	3200	500	2800	400	2500	350	2000	300		
	40	2600	500	2300	400	2100	350	1800	300		
	60	2300	450	2000	450	1800	350	1600	300		
	90	2000	450	1800	400	1600	400	1400	300		
90x45	10	3800	600	3400	450	2800	400	2200	300		
	20	3400	600	3100	450	2800	400	2300	300		
	40	2800	600	2500	500	2300	400	2000	350		
	60	2500	600	2200	500	2000	400	1700	350		
	90	2200	550	1900	500	1700	450	1500	350		
90x70	10	4500	700	4100	600	3500	500	2700	400		
	20	3900	750	3500	600	3200	500	2800	400		
	40	3200	750	2900	600	2600	500	2300	400		
	60	2900	750	2500	600	2300	550	2000	400		
	90	2500	800	2200	650	2000	550	1800	450		
90x90	10	4700	800	4300	650	4000	550	3100	450		
	20	4100	800	3700	650	3500	550	3100	450		
	40	3500	850	3100	650	2800	600	2500	450		
	60	3100	850	2700	700	2500	600	2200	450		
	90	2700	900	2400	700	2200	600	1900	500		
120x35	10	5000	650	4000	500	3400	450	2600	350		
	20	4200	650	3800	500	3500	450	2700	350		
	40	3500	650	3100	550	2800	450	2500	350		
	60	3100	700	2700	550	2500	450	2100	350		
	90	2700	700	2400	550	2100	500	1900	400		
120x45	10	5300	750	4600	600	3800	500	3000	400		
	20	4500	750	4100	600	3700	500	3100	400		
	40	3700	750	3300	600	3000	500	2700	400		
	60	3300	800	2900	600	2700	550	2300	400		
	90	2900	800	2600	650	2300	550	2100	450		
120x70	10	5700	900	5300	750	4800	650	3700	500		
	20	5000	950	4600	750	4200	650	3800	500		
	40	4200	950	3800	750	3500	650	3100	500		
	60	3800	1000	3400	800	3100	650	2700	550		
	90	3400	1000	3000	800	2700	700	2400	550		

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											
120x90	10	5900	1000	5600	850	5300	700	4200	550		
	20	5300	1050	4900	850	4500	700	4100	550		
	40	4500	1050	4100	850	3800	750	3300	600		
	60	4100	1100	3600	900	3300	750	3000	600		
	90	3600	1150	3200	900	3000	800	2600	650		
140x35	10	5700	750	4800	600	4000	500	3100	400		
	20	4900	750	4400	600	4000	500	3200	400		
	40	4000	750	3600	600	3300	500	2900	400		
	60	3600	800	3100	600	2900	550	2500	400		
	90	3100	800	2800	650	2500	550	2200	450		
140x45	10	6000	850	5400	650	4600	550	3500	450		
	20	5200	850	4700	650	4300	550	3600	450		
	40	4300	850	3900	700	3500	600	3100	450		
	60	3900	900	3400	700	3100	600	2700	500		
	90	3400	950	3000	750	2700	650	2400	500		
140x70	10	6500	1050	6100	850	5700	700	4400	550		
	20	5800	1050	5300	850	4900	700	4400	600		
	40	4900	1100	4400	850	4100	750	3600	600		
	60	4400	1100	3900	900	3600	750	3200	600		
	90	3900	1150	3500	950	3200	800	2800	650		
140x90	10	6700	1150	6400	950	6000	800	5000	650		
	20	6000	1200	5600	950	5200	800	4700	650		
	40	5200	1200	4700	1000	4400	850	3900	650		
	60	4700	1250	4200	1000	3900	850	3400	700		
	90	4200	1300	3800	1050	3400	900	3000	700		
170x35	10	6800	850	5900	700	5000	600	3800	450		
	20	5800	850	5300	700	4900	600	3900	450		
	40	4900	900	4300	700	4000	600	3500	500		
	60	4300	900	3800	750	3500	600	3100	500		
	90	3800	950	3400	750	3100	650	2700	500		
170x45	10	7100	1000	6600	800	5600	650	4400	500		
	20	6200	1000	5600	800	5200	650	4500	550		
	40	5200	1000	4700	800	4300	700	3800	550		
	60	4700	1050	4100	850	3800	700	3300	550		
	90	4100	1100	3700	850	3300	750	2900	600		

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	7200	1250	7200	1000	6800	850	5500	650		
	20	6800	1250	6300	1000	5900	850	5300	700		
	40	5900	1250	5300	1000	4900	850	4400	700		
	60	5300	1300	4800	1050	4400	900	3900	700		
	90	4800	1350	4200	1100	3900	950	3400	750		
170x90	10	7200	1400	7200	1100	7100	950	6200	750		
	20	7100	1400	6600	1100	6200	950	5700	750		
	40	6200	1450	5700	1150	5300	1000	4700	800		
	60	5700	1450	5100	1150	4700	1000	4200	800		
	90	5100	1550	4600	1200	4200	1050	3700	850		
190x35	10	7200	950	6600	750	5600	650	4300	500		
	20	6500	950	5900	750	5400	650	4500	500		
	40	5400	1000	4800	800	4400	650	3900	500		
	60	4800	1000	4300	800	3900	700	3400	550		
	90	4300	1050	3800	850	3400	700	3000	550		
190x45	10	7200	1050	7200	850	6300	700	4900	550		
	20	6900	1100	6300	850	5800	750	5100	600		
	40	5800	1100	5200	900	4800	750	4200	600		
	60	5200	1150	4600	900	4200	800	3700	600		
	90	4600	1200	4100	950	3700	800	3300	650		
190x70	10	7200	1350	7200	1050	7200	900	6200	750		
	20	7200	1350	6900	1100	6500	950	5900	750		
	40	6500	1400	5900	1100	5500	950	4900	750		
	60	5900	1450	5300	1150	4900	1000	4300	800		
	90	5300	1500	4700	1200	4300	1000	3800	800		
190x90	10	7200	1500	7200	1200	7200	1050	7000	800		
	20	7200	1550	7200	1200	6900	1050	6300	850		
	40	6900	1600	6300	1250	5900	1050	5200	850		
	60	6300	1600	5700	1300	5200	1100	4700	900		
	90	5700	1700	5100	1350	4700	1150	4100	900		
240x35	10	7200	1150	7200	900	7200	750	5600	600		
	20	7200	1150	7200	900	6800	750	5800	600		
	40	6800	1200	6000	950	5600	800	4900 ₅	650		
	60	6000	1200	5400	950	4900	800	4300 ₅	650		
	90	5400	1250	4800	1000	4300	850	3800 ₁₀	700		

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									
240x45	10	7200	1300	7200	1050	7200	900	6400	700
	20	7200	1300	7200	1050	7200	900	6500	700
	40	7200	1350	6500	1050	6000	900	5300	700
	60	6500	1400	5800	1100	5300	950	4700	750
	90	5800	1450	5200	1150	4700	1000	4200	800
240x70	10	7200	1650	7200	1300	7200	1100	7200	900
	20	7200	1650	7200	1300	7200	1100	7200	900
	40	7200	1700	7200	1350	6800	1150	6100	900
	60	7200	1750	6600	1400	6100	1200	5400	950
	90	6600	1850	5900	1450	5400	1250	4800	1000
240x90	10	7200	1850	7200	1450	7200	1250	7200	1000
	20	7200	1900	7200	1500	7200	1250	7200	1000
	40	7200	1950	7200	1550	7200	1300	6500	1050
	60	7200	2000	7100	1550	6500	1350	5800	1050
	90	7100	2100	6300	1650	5800	1400	5200	1100
290x45	10	7200	1500	7200	1200	7200	1000	7200	800
	20	7200	1550	7200	1200	7200	1050	7200	800
	40	7200	1600	7200	1250	7200	1050	6400 _s	850
	60	7200	1600	7000	1300	6400	1100	5700 _s	850
	90	7000	1700	6200	1350	5700	1150	5000 ₁₅	900
290x70	10	7200	1950	7200	1550	7200	1300	7200	1000
	20	7200	1950	7200	1550	7200	1300	7200	1050
	40	7200	2000	7200	1600	7200	1350	7200	1050
	60	7200	2050	7200	1650	7200	1400	6500	1100
	90	7200	2150	7100	1700	6500	1450	5800	1150
290x90	10	7200	2200	7200	1750	7200	1450	7200	1150
	20	7200	2200	7200	1750	7200	1500	7200	1150
	40	7200	2300	7200	1800	7200	1500	7200	1200
	60	7200	2350	7200	1850	7200	1550	7000	1250
	90	7200	2450	7200	1950	7000	1650	6200	1300

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	4100	1350	3100	1100	2600	900	2300	800	2000	700
	20	3500	1350	2700	1100	2300	900	2000	800	1800	700
	40	2900	1350	2300	1150	1900	950	1700	800	1600	750
	60	2600	1300	2000	1000	1700	800	1500	700	1400	700
	90	2300	1100	1800	900	1500	700	1400	700	1300	600
170x70	10	4500	1550	3600	1350	3000	1100	2600	950	2400	850
	20	3900	1550	3100	1350	2700	1100	2400	950	2100	850
	40	3300	1550	2600	1300	2300	1150	2000	1000	1800	900
	60	3000	1500	2300	1100	2000	1000	1800	900	1600	800
	90	2600	1300	2100	1000	1800	900	1600	800	1500	700
170x90	10	4800	1700	3900	1500	3300	1200	2900	1050	2600	950
	20	4200	1700	3400	1500	2900	1250	2600	1100	2300	950
	40	3600	1700	2800	1400	2400	1200	2200	1100	2000	1000
	60	3200	1600	2500	1200	2200	1100	2000	1000	1800	900
	90	2800	1400	2200	1100	1900	900	1700	800	1600	800
190x45	10	4500	1500	3500	1200	2900	1000	2600	850	2300	800
	20	3900	1500	3000	1250	2600	1000	2300	900	2000	800
	40	3200	1500	2500	1250	2200	1050	1900	900	1800	800
	60	2900	1400	2200	1100	1900	900	1700	800	1600	800
	90	2500	1200	2000	1000	1700	800	1500	700	1400	700
190x70	10	5000	1750	4000	1500	3400	1250	3000	1050	2600	950
	20	4400	1750	3500	1500	3000	1250	2600	1100	2400	950
	40	3700	1750	2900	1400	2500	1200	2200	1100	2000	1000
	60	3300	1600	2600	1300	2300	1100	2000	1000	1800	900
	90	2900	1400	2300	1100	2000	1000	1800	900	1700	800
190x90	10	5300	1900	4300	1650	3700	1350	3200	1200	2900	1050
	20	4700	1900	3800	1700	3200	1400	2900	1200	2600	1100
	40	4000	1900	3200	1600	2700	1300	2400	1200	2200	1100
	60	3600	1800	2800	1400	2500	1200	2200	1100	2000	1000
	90	3200	1600	2500	1200	2200	1100	2000	1000	1800	900

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	5600	1850	4400	1550	3700	1250	3200	1100	2900	1000
	20	4800	1850	3800	1550	3300	1300	2900	1100	2600	1000
	40	4100	1850	3200	1600	2800	1300	2500	1150	2200 ₅	1000
	60	3600	1800	2900	1400	2500	1200	2200	1100	2000 ₅	1000
	90	3200	1600	2500	1200	2200	1100	2000	1000	1800 ₅	900
240x70	10	6200	2150	5000	1900	4300	1550	3700	1350	3400	1200
	20	5400	2150	4400	1900	3800	1600	3300	1350	3000	1250
	40	4600	2150	3700	1800	3200	1600	2900	1400	2600	1250
	60	4100	2000	3300	1600	2900	1400	2600	1300	2300	1100
	90	3700	1800	2900	1400	2500	1200	2300	1100	2100	1000
240x90	10	6500	2350	5300	2100	4600	1750	4000	1500	3600	1350
	20	5800	2350	4700	2150	4100	1750	3600	1500	3300	1350
	40	5000	2350	4000	2000	3500	1700	3100	1550	2800	1400
	60	4500	2200	3600	1800	3100	1500	2800	1400	2600	1300
	90	4000	2000	3200	1600	2800	1400	2500	1200	2300	1100
290x45	10	6600	2250	5300	1850	4500	1550	3900 ₅	1350	3500 ₁₀	1200
	20	5800	2250	4600	1900	3900	1550	3500 ₅	1350	3100 ₁₀	1200
	40	4900	2250	3900	1950	3300	1600	3000 ₅	1400	2700 ₁₀	1250
	60	4400	2200	3500	1700	3000	1500	2700 ₅	1300	2400 ₁₀	1200
	90	3900	1900	3100	1500	2600	1300	2400 ₁₀	1200	2200 ₁₅	1100 ₁₅
290x70	10	7200	2600	6000	2300	5100	1900	4500	1650	4000	1450
	20	6500	2600	5300	2350	4500	1900	4000	1650	3600	1500
	40	5500	2600	4500	2200	3900	1950	3500	1700	3200	1500
	60	5000	2500	4000	2000	3500	1700	3100	1500	2800	1400
	90	4400	2200	3500	1700	3100	1500	2800	1400	2500 ₅	1200
290x90	10	7200	2850	6400	2550	5500	2100	4900	1800	4400	1650
	20	6800	2850	5600	2600	4900	2100	4400	1850	4000	1650
	40	5900	2800	4800	2350	4200	2100	3700	1800	3400	1700
	60	5400	2650	4300	2100	3800	1900	3400	1700	3100	1500
	90	4800	2400	3800	1900	3300	1600	3000	1500	2800	1400

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
170x45	10	4900	1350	3300	1100	2700	900	2400	800	2100	700
	20	4700	1350	3400	1100	2800	900	2500	800	2200	700
	40	3900	1350	3100	1150	2600	950	2400	800	2100	750
	60	3500	1350	2700	1150	2400	950	2100	850	1900 ₁₀	750
	90	3100	1350	2400	1150	2100	1000	1900	850	1700 ₁₅	750
170x70	10	6100	1550	4100	1350	3400	1100	3000	950	2700	850
	20	5400	1550	4200	1350	3500	1100	3000	950	2700	850
	40	4500	1550	3600	1400	3100	1150	2700	1000	2500	900
	60	4000	1550	3200	1350	2700	1150	2500	1000	2300	900
	90	3600	1550	2800	1250	2400	1150	2200	1050	2000	950
170x90	10	6500	1700	4600	1500	3800	1200	3300	1050	3000	950
	20	5700	1700	4600	1500	3900	1250	3400	1100	3000	950
	40	4900	1700	3900	1550	3300	1250	3000	1100	2700	1000
	60	4300	1700	3500	1450	3000	1300	2700	1150	2500	1000
	90	3900	1600	3100	1350	2700	1200	2400	1100	2200	1050
190x45	10	5500	1500	3700	1200	3100	1000	2700	850	2400	800
	20	5300	1500	3800	1250	3200	1000	2800	900	2500	800
	40	4400	1500	3500	1250	3000	1050	2600	900	2300 ₁₀	800
	60	3900	1500	3100	1300	2600	1050	2400 ₅	900	2200 ₂₀	850
	90	3400	1500	2700	1250	2300	1100	2100 ₁₀	950	1900 ₃₀	850
190x70	10	6800	1750	4600	1500	3800	1250	3300	1050	3000	950
	20	6000	1750	4800	1500	3900	1250	3400	1100	3100	950
	40	5000	1750	4000	1550	3400	1300	3100	1100	2800	1000
	60	4500	1750	3600	1500	3100	1300	2800	1150	2500	1000
	90	4000	1650	3200	1400	2700	1250	2500	1150	2300	1050
190x90	10	7200	1900	5200	1650	4200	1350	3700	1200	3300	1050
	20	6300	1900	5100	1700	4300	1400	3800	1200	3400	1100
	40	5400	1900	4300	1700	3700	1400	3300	1250	3000	1100
	60	4800	1900	3900	1600	3300	1400	3000	1250	2800	1150
	90	4300	1750	3400	1500	3000	1350	2700	1200	2500	1150

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
240x45	10	7100	1850	4800	1550	3900	1250	3400	1100	3100 ₁₀	1000
	20	6600	1850	4900	1550	4000	1300	3500 ₁₀	1100	3100 ₂₅	1000
	40	5500	1850	4400	1600	3800 ₅	1300	3300 ₂₅	1150	3000 ₄₀	1000
	60	4900	1850	3900	1600	3400 ₁₀	1350	3000 ₃₀	1150	2800 ₅₀	1050
	90	4400	1800	3400	1500	3000 ₁₅	1350	2700 ₄₀	1200	2500 ₆₀	1100
240x70	10	7200	2150	5900	1900	4800	1550	4200	1350	3800	1200
	20	7200	2150	6000	1900	5000	1600	4300	1350	3900 ₅	1250
	40	6300	2150	5000	1900	4300	1600	3900	1400	3600 ₁₅	1250
	60	5600	2150	4500	1800	3900	1600	3500	1450	3200 ₁₅	1300
	90	5000	2000	4000	1650	3500	1500	3100 ₁₀	1400	2900 ₂₅	1300
240x90	10	7200	2350	6600	2100	5400	1750	4700	1500	4200	1350
	20	7200	2350	6400	2150	5500	1750	4800	1500	4300	1350
	40	6700	2350	5400	2050	4700	1800	4200	1550	3900	1400
	60	6100	2300	4900	1900	4200	1700	3800	1600	3500 ₅	1450
	90	5400	2100	4300	1800	3800	1600	3400	1450	3100 ₁₅	1400
290x45	10	7200	2250	5800	1850	4700	1550	4100 ₁₅	1350	3700 ₃₀	1200
	20	7200	2250	5900	1900	4900 ₁₀	1550	4200 ₃₀	1350	3800 ₅₀	1200
	40	6600	2250	5300	1950	4500 ₂₅	1600	4100 ₅₀	1400	3600 ₆₅	1250
	60	5900	2250	4700	1850	4100 ₃₀	1600	3600 ₅₅	1400	3300 ₈₀	1250
	90	5300	2050	4200 ₁₀	1700	3600 ₃₅	1550	3200 ₇₀	1400	3000 ₉₅	1300 ₉₅
290x70	10	7200	2600	7200	2300	5800	1900	5100	1650	4600 ₁₀	1450
	20	7200	2600	7100	2350	6000	1900	5200 ₁₀	1650	4700 ₂₅	1500
	40	7200	2600	6100	2200	5200	1950	4700 ₁₅	1700	4300 ₃₅	1500
	60	6800	2500	5400	2100	4700	1850	4200 ₂₀	1700	3900 ₄₀	1550
	90	6000	2300	4800	1950	4200 ₁₀	1750	3800 ₃₀	1600	3500 ₅₀	1500
290x90	10	7200	2850	7200	2550	6500	2100	5700	1800	5100	1650
	20	7200	2850	7200	2600	6600	2100	5800	1850	5200 ₁₅	1650
	40	7200	2800	6500	2350	5700	2100	5100 ₅	1900	4700 ₂₀	1700
	60	7200	2650	5900	2200	5100	2000	4600 ₁₀	1850	4200 ₂₅	1700
	90	6500	2450	5200	2050	4600	1850	4100 ₁₅	1700	3800 ₃₅	1600

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.