RECYCLED HARDWOOD
SPAN TABLES

SUPPLEMENT 7

Wind Classifications C1 and C2

Recycled Species Group C
Recycled Grade, RG1

Prepared by:
Timber Queensland Ltd

© 2008 Forest and Wood Products Australia Limited. All rights reserved

Forest and Wood Products Australia Limited ("FWPA") makes no warranties or assurances with respect to this publication including merchantability, fitness for purpose or otherwise. FWPA and all persons associated with it exclude all liability (including liability for negligence) in relation to any opinion, advice or information contained in this publication or for any consequences arising from the use of such opinion, advice or information.

This work is copyright and protected under the Copyright Act 1968 (Cth). All material except the FWPA logo may be reproduced in whole or in part, provided that it is not sold or used for commercial benefit and its source (Forest and Wood Products Australia Limited) is acknowledged. Reproduction or copying for other purposes, which is strictly reserved only for the owner or licensee of copyright under the Copyright Act, is prohibited without the prior written consent of Forest and Wood Products Australia Limited.

Forest and Wood Products Australia
Level 4, 10–16 Queen Street
Melbourne,Vic 3000
Web: www.fwpa.com.au

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.

5.0 CONTENTS

Table 1 **Decking Boards – Commercial Applications**

Table 2 **Deck Bearers – Domestic Applications**

Table 3 **Deck Joists – Domestic Applications**

Table 4 **Stair Stringers**

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

Table 6 **Posts – Supporting Roof and/or Floor Loads**

Table 7 **Window or Door Mullions**

Table 8 **Lintels (Window Heads) – Sheet Roof**

Table 9 **Lintels (Window Heads) – Tile Roof**

Table 10 **Rafters or Purlins**

Table 11 **Roof Beams**

Table 1

Decking Boards - Commercial Applications Supporting 5.0 kPa Uniform Live Load

	Point Live Load (kN)			
	3	5	9	13
Size DxB (mm)	**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 continous 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.

© COPYRIGHT

Table 2

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

	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
Size DxB (mm)	**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 continous members. Subscript values indicate the minimium additional bearing length where required to be greater than 50 mm at end supports and 100 mm at internal supports.

© COPYRIGHT

Table 3

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

	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
Size DxB (mm)	**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 continous members.

© COPYRIGHT

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) Minimuim bearing length = 50 mm at end supports.

iv) Maximum trench depth to accommodate treads - 10 mm.

© COPYRIGHT

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) Minimuim bearing length = 35 mm at end supports.

© COPYRIGHT

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	2700	NS	NS	2300	2000	NS	NS	1600	1500	1400	NS
90x90	4800	4300	3100	NS	3700	3300	2800	NS	2600	2500	2300	NS
120x120	4800	4800	4800	3800	4800	4800	4800	3700	4600	4400	4200	3500
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	2200	1600	NS	2300	1800	1400	NS	1600	1300	NS	NS
90x90	4800	3700	2600	NS	3700	3000	2400	NS	2600	2300	2100	NS
120x120	4800	4800	4600	3300	4800	4800	4300	3100	4600	4100	3700	3000
140x140	4800	4800	4800	4400	4800	4800	4800	4300	4800	4800	4800	4100
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.

© COPYRIGHT

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			
70x140	2400	1100	1000	NS	NS	1000	NS	NS	NS
90x70	2400	1000	NS	NS	NS	NS	NS	NS	NS
90x90	2400	1300	1200	1100	1000	1200	1000	NS	NS
	2700	1000	NS	NS	NS	NS	NS	NS	NS
90x120	2400	1800	1600	1500	1400	1600	1500	1300	1200
	2700	1400	1300	1200	1000	1300	1100	900	NS
	3000	1000	900	NS	NS	900	NS	NS	NS
90x140	2400	2100	1900	1700	1600	1900	1700	1600	1400
	2700	1600	1500	1400	1300	1500	1400	1200	1100
	3000	1200	1200	1100	900	1200	1000	NS	NS
120x70	2400	2100	1900	1800	1700	1900	1800	1600	1500
	2700	1600	1500	1400	1300	1500	1400	1300	1200
	3000	1300	1200	1100	1000	1200	1100	900	NS
120x90	2400	2600	2400	2200	2100	2400	2200	2000	1800
	2700	2000	1800	1700	1700	1900	1700	1600	1500
	3000	1600	1500	1400	1300	1500	1400	1300	1100
	3600	900	900	NS	NS	900	NS	NS	NS
120x120	2400	3500	3200	3000	2800	3300	3000	2700	2500
	2700	2700	2500	2300	2200	2500	2300	2100	1900
	3000	2200	2000	1800	1700	2000	1800	1700	1600
	3600	1300	1200	1200	1200	1200	1200	1100	1000
120x140	2400	4100	3800	3500	3300	3900	3500	3200	3000
	2700	3200	3000	2800	2600	3000	2700	2500	2300
	3000	2600	2400	2200	2100	2400	2200	2000	1800
	3600	1600	1500	1400	1400	1500	1400	1300	1300
140x70	2400	2900	2700	2600	2400	2800	2500	2300	2100
	2700	2300	2200	2000	1900	2200	2000	1800	1700
	3000	1800	1700	1600	1600	1700	1600	1500	1400
	3600	1100	1100	1100	1000	1100	1000	900	NS
140x90	2400	3700	3400	3200	3000	3500	3200	2900	2700
	2700	2900	2700	2500	2400	2700	2500	2300	2100
	3000	2300	2200	2000	1900	2200	2000	1800	1700
	3600	1500	1400	1400	1300	1400	1300	1300	1200
140x120	2400	4800	4600	4300	4000	4600	4200	3900	3600
	2700	3900	3600	3400	3200	3700	3400	3100	2900
	3000	3100	2900	2700	2600	2900	2700	2500	2300
	3600	2100	1900	1800	1700	2000	1800	1600	1600
	4200	1200	1100	1100	1100	1100	1100	1100	1000
140x140	2400	4800	4800	4800	4700	4800	4800	4600	4200
	2700	4600	4300	4000	3800	4300	4000	3700	3400
	3000	3700	3400	3200	3000	3500	3200	2900	2700
	3600	2500	2300	2200	2100	2300	2100	2000	1800
	4200	1400	1400	1400	1300	1400	1400	1300	1200

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.

© COPYRIGHT

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
	Maximum Lintel Span (mm)									
Size DxB (mm)	**Single Span**									
140x35	2300	2200	1500	NS	NS	NS	NS	NS	NS	NS
140x45	2600	2600	1800	1500	1400	NS	NS	NS	NS	NS
140x70	3000	3000	2300	2100	1800	1500	1500	NS	1400	NS
140x90	3100	3100	2500	2400	2000	1800	1700	1300	1500	NS
170x35	2800	2700	1900	1500	1500	NS	NS	NS	NS	NS
170x45	3100	3000	2200	2100	1700	NS	1500	NS	NS	NS
170x70	3400	3400	2700	2700	2300	2100	1900	1500	1700	NS
170x90	3600	3600	3100	2900	2500	2400	2100	2000	1900	1500
190x35	3100	3000	2200	2100	1700	NS	1200	NS	NS	NS
190x45	3400	3300	2500	2400	2000	1500	1700	NS	1500	NS
190x70	3700	3700	3100	3000	2500	2400	2200	1700	1900	1300
190x90	3900	3900	3400	3300	2800	2700	2400	2300	2100	1700
240x35	3800	3700	2800	2700	2300	1700	1900	NS	1700	NS
240x45	4000	4000	3200	3000	2600	2500	2200	1600	1900	NS
240x70	4400	4400	3800	3700	3200	3100	2800	2700	2500	1900
240x90	4600	4600	4000	4000	3600	3400	3100	2900	2700	2700
290x45	4600	4600	3900	3700	3100	3000	2700	2000	2400	1700
290x70	5000	5000	4300	4300	3900	3800	3400	3200	3000	2900
290x90	5300	5300	4600	4600	4200	4200	3800	3600	3400	3200
	Continuous Span									
140x35	2300	2300	1600	1200	NS	NS	NS	NS	NS	NS
140x45	2600	2700	1700	1600	1400	NS	NS	NS	NS	NS
140x70	3300	3200	2300	2200	1700	1600	1500	NS	1400	NS
140x90	3600	3500	2600	2600	2100	2000	1600	1500	1500	NS
170x35	2800	2800	1700	1500	1400	NS	NS	NS	NS	NS
170x45	3200	3200	2200	2100	1600	1300	1300	NS	NS	NS
170x70	4000	4000	2800	2800	2200	2100	1700	1400	1500	1200
170x90	4400	4400	3100	3100	2500	2600	2200	1700	1700	1400
190x35	3200	3200	2200	1600	1500	NS	NS	NS	NS	NS
190x45	3600	3500	2500	2600	1700	1400	1400	NS	NS	NS
190x70	4500	4400	3100	3100	2600	2600	2100	1600	1600	1300
190x90	4900	4900	3500	3400	2800	2800	2300	2100	2000	1600
240x35	4100	4000	2700	2900	1900	1900	1900_{25}	NS	1300_{10}	NS
240x45	4600	4500	3200	3100	2500	2700_{5}	1900	1900_{5}	1900_{25}	NS
240x70	5500	5500	4000	4000	3200	3100	2500	2800	2100	1900
240x90	5800	5800	4400	4400	3600	3500	3100	3100	2500	2800
290x45	5600	5600	3900_{5}	3900_{5}	2900_{15}	3000_{20}	2200_{15}	2000_{10}	2000_{35}	2000_{30}
290x70	6300	6300	4800	4800	3900_{5}	3900_{5}	3200_{15}	3200_{10}	3000_{30}	2800_{25}
290x90	6500	6600	5400	5400	4400	4400	3800_{10}	3300	3200_{15}	3200_{15}

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 continous members. Subscript values indicate the minimium additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports.

© COPYRIGHT

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
	Maximum Lintel Span (mm)									
Size DxB (mm)	**Single Span**									
140x35	1800	1800	1400	1300	1200	NS	NS	NS	NS	NS
140x45	2000	2000	1600	1400	1400	NS	1200	NS	NS	NS
140x70	2300	2300	1800	1800	1600	1500	1400	NS	1400	NS
140x90	2500	2600	2000	2000	1700	1700	1600	1500	1500	NS
170x35	2200	2200	1700	1700	1500	NS	1400	NS	NS	NS
170x45	2400	2400	1900	1900	1700	1500	1500	NS	1400	NS
170x70	2800	2800	2200	2200	1900	1900	1800	1700	1600	1200
170x90	3000	3000	2400	2500	2100	2100	1900	1900	1800	1600
190x35	2500	2500	2000	1900	1700	1200	1500	NS	NS	NS
190x45	2700	2700	2200	2100	1900	1700	1700	NS	1600	NS
190x70	3100	3100	2500	2600	2200	2200	2000	1900	1800	1600
190x90	3300	3200	2700	2800	2400	2400	2200	2100	2000	2000
240x35	3100	3100	2500	2500	2200	1800	1900	1300	1800	NS
240x45	3300	3300	2700	2800	2400	2400	2200	1800	1900	1400
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	1900
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	1600	1400	1400	NS	NS	NS	NS	NS
140x45	2700	2700	2000	1900	1500	NS	NS	NS	NS	NS
140x70	3100	3000	2400	2500	2000	1900	1600	1300	1500	NS
140x90	3300	3200	2700	2700	2200	2100	1800	1600	1600	1300
170x35	3000	3000	2100	1600	1500	NS	NS	NS	NS	NS
170x45	3200	3100	2400	2500	1700	1400	1500_{5}	NS	NS	NS
170x70	3500	3500	3000	3000	2400	2600	2100	1600_{5}	1600	1300
170x90	3800	3800	3200	3100	2700	2700	2300	2100	2100	1600_{5}
190x35	3200	3200	2300	1900	1600_{5}	1300	NS	NS	NS	NS
190x45	3500	3400	2700	2700	2000_{5}	1600_{10}	1600_{10}	1200	NS	NS
190x70	3900	3800	3300	3200	2700	2700	2300_{5}	1700	1700	1500
190x90	4100	4100	3500	3500	3000	3000	2600	2700	2200_{5}	1700
240x35	3900	3800	2900_{25}	3000_{30}	2200_{40}	1900_{25}	1900_{60}	1700_{50}	1300_{40}	NS
240x45	4100	4100	3500_{20}	3300_{15}	2500_{25}	2800_{40}	1900_{30}	1900_{30}	1900_{60}	1800_{50}
240x70	4600	4600	3900	3900	3500_{15}	3300_{15}	3000_{30}	3000_{30}	2600_{30}	2700_{50}
240x90	4900	4900	4200	4200	3800_{5}	3700_{5}	3300_{20}	3300_{10}	2900_{30}	2900_{35}
290x45	4800	4700	4000_{35}	4000_{35}	3200_{65}	3200_{60}	2500_{65}	2800_{90}	2000_{75}	2000_{75}
290x70	5300	5300	4500_{5}	4500_{5}	4100_{35}	4100_{35}	3600_{60}	3200_{45}	3200_{80}	3000_{70}
290x90	5600	5600	4800	4800	4400_{20}	4300_{20}	4000_{45}	4000_{45}	3600_{60}	3200_{45}

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 minimium additional bearing length where required to be greater than 35 mm at end supports and 70 mm at internal supports.

© COPYRIGHT

Table 10

Rafters or Purlins
Supporting Roof and Ceiling Loads

Size DxB (mm)	Roof & Ceiling Mass (kg/m2)	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	400	1900	300	1600	250	1300	250
	20	2300	400	1900	300	1600	250	1300	250
	40	1900	400	1700	350	1500	300	1300	250
	60	1700	400	1500	350	1300	300	1200	250
	90	1500	450	1300	350	1200	300	1000	250
90x45	10	2800	450	2100	350	1800	300	1500	250
	20	2500	450	2200	350	1800	300	1500	250
	40	2100	450	1800	350	1700	300	1500	250
	60	1800	500	1600	400	1500	300	1300	250
	90	1600	500	1400	400	1300	350	1100	250
90x70	10	3300	600	2700	450	2200	400	1800	300
	20	2800	600	2600	450	2300	400	1800	300
	40	2400	600	2100	450	1900	400	1700	300
	60	2100	600	1800	500	1700	400	1500	350
	90	1800	600	1600	500	1500	400	1300	350
90x90	10	3400	650	3000	500	2500	450	2000	350
	20	3000	650	2700	500	2500	450	2000	350
	40	2500	650	2300	550	2100	450	1800	350
	60	2300	650	2000	550	1800	450	1600	350
	90	2000	700	1800	550	1600	450	1400	400
120x35	10	3300	500	2600	400	2200	350	1800	250
	20	3100	500	2600	400	2200	350	1800	250
	40	2500	500	2200	400	2000	350	1800	300
	60	2200	550	2000	400	1800	350	1600	300
	90	2000	550	1700	450	1600	350	1400	300
120x45	10	3800	600	3000	450	2500	400	2000	300
	20	3300	600	3000	450	2500	400	2000	300
	40	2700	600	2400	450	2200	400	2000	300
	60	2400	600	2100	500	2000	400	1700	300
	90	2100	600	1900	500	1700	400	1500	350
120x70	10	4200	750	3700	600	3100	500	2500	400
	20	3700	750	3400	600	3100	500	2500	400
	40	3100	750	2800	600	2600	500	2300	400
	60	2800	750	2500	600	2300	500	2000	400
	90	2500	800	2200	650	2000	550	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) Maximium 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 minimium 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

© COPYRIGHT

Table 10 (cont)

Rafters or Purlins
Supporting Roof and Ceiling Loads

Size DxB (mm)	Roof & Ceiling Mass (kg/m2)	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	800	4100	650	3500	550	2700	450
	20	3900	850	3600	650	3300	550	2800	450
	40	3300	850	3000	650	2800	600	2500	450
	60	3000	850	2700	700	2500	600	2200	450
	90	2700	900	2400	700	2200	600	1900	500
140x35	10	3900	600	3100	450	2600	400	2100	300
	20	3600	600	3100	450	2600	400	2100	300
	40	3000	600	2600	450	2400	400	2100	300
	60	2600	600	2300	500	2100	400	1800	300
	90	2300	600	2000	500	1800	400	1600	350
140x45	10	4400	650	3500	500	2900	450	2300	350
	20	3800	650	3500	550	3000	450	2400	350
	40	3200	700	2800	550	2600	450	2300	350
	60	2800	700	2500	550	2300	450	2000	350
	90	2500	700	2200	550	2000	500	1800	400
140x70	10	4800	850	4400	650	3700	550	2900	450
	20	4200	850	3900	650	3600	550	2900	450
	40	3600	850	3200	700	3000	600	2600	450
	60	3200	850	2900	700	2600	600	2300	450
	90	2900	900	2500	700	2300	600	2000	500
140x90	10	5000	950	4700	750	4200	650	3200	500
	20	4500	950	4100	750	3800	650	3200	500
	40	3800	950	3500	750	3200	650	2900	500
	60	3500	1000	3100	800	2900	650	2500	550
	90	3100	1000	2800	800	2500	700	2200	550
170x35	10	4800	700	3800	550	3200	450	2500	350
	20	4300	700	3900	550	3200	450	2500	350
	40	3600	700	3200	550	2900	450	2600	350
	60	3200	700	2800	550	2600	450	2200	350
	90	2800	750	2500	600	2200	500	2000	400
170x45	10	5200	800	4300	600	3600	500	2800	400
	20	4600	800	4100	600	3700	500	2900	400
	40	3800	800	3400	650	3200	550	2800	400
	60	3400	800	3000	650	2800	550	2400	450
	90	3000	850	2700	650	2400	550	2100	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) Maximium 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 minimium 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

© COPYRIGHT

Table 10 (cont)

Rafters or Purlins
Supporting Roof and Ceiling Loads

Size DxB (mm)	Roof & Ceiling Mass (kg/m2)	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	1000	5300	800	4600	650	3500	500
	20	5000	1000	4600	800	4300	650	3600	550
	40	4300	1000	3900	800	3600	700	3200	550
	60	3900	1000	3500	800	3200	700	2800	550
	90	3500	1050	3100	850	2800	700	2500	550
170x90	10	5800	1100	5500	900	5100	750	4000	600
	20	5300	1100	4900	900	4600	750	4000	600
	40	4600	1150	4200	900	3900	750	3500	600
	60	4200	1150	3700	900	3500	800	3100	600
	90	3700	1200	3300	950	3100	800	2700	650
190x35	10	5400	750	4300	600	3600	500	2800	400
	20	4800	750	4300	600	3700	500	2900	400
	40	4000	750	3500	600	3300	500	2900	400
	60	3500	800	3100	600	2900	500	2500	400
	90	3100	800	2800	650	2500	550	2200	400
190x45	10	5700	850	4900	700	4100	550	3200	450
	20	5100	850	4600	700	4200	550	3200	450
	40	4300	850	3800	700	3500	600	3100	450
	60	3800	900	3400	700	3100	600	2700	450
	90	3400	900	3000	700	2700	600	2400	500
190x70	10	6100	1050	5800	850	5200	750	4000	550
	20	5500	1100	5100	850	4800	750	4000	600
	40	4800	1100	4300	900	4000	750	3600	600
	60	4300	1100	3900	900	3600	750	3200	600
	90	3900	1150	3500	900	3200	800	2800	600
190x90	10	6300	1200	6000	950	5800	800	4500	650
	20	5800	1200	5400	1000	5100	850	4600	650
	40	5100	1250	4600	1000	4300	850	3900	650
	60	4600	1250	4200	1000	3900	850	3400	700
	90	4200	1300	3700	1050	3400	900	3000	700
240x35	10	6700	900	5500	700	4700	600	3600	450
	20	5900	900	5400	700	4700	600	3600	450
	40	5000	950	4500	750	4100	600	3600	500
	60	4500	950	4000	750	3600	600	3200	500
	90	4000	950	3500	750	3200	650	2800	500

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) Maximium 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 minimium 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

© COPYRIGHT

Table 10 (cont)

Rafters or Purlins
Supporting Roof and Ceiling Loads

Size DxB (mm)	Roof & Ceiling Mass (kg/m2)	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	7000	1000	6300	800	5300	700	4100	550
	20	6200	1050	5700	850	5300	700	4200	550
	40	5300	1050	4800	850	4400	700	3900	550
	60	4800	1050	4300	850	3900	700	3500	550
	90	4300	1100	3800	900	3500	750	3000	600
240x70	10	7200	1300	7000	1050	6600	900	5200	700
	20	6700	1300	6300	1050	5900	900	5300	700
	40	5900	1350	5400	1050	5000	900	4500	700
	60	5400	1350	4900	1100	4500	900	4000	700
	90	4900	1400	4300	1100	4000	950	3500	750
240x90	10	7200	1450	7200	1150	7000	1000	5800	800
	20	7000	1500	6600	1150	6200	1000	5700	800
	40	6200	1500	5700	1200	5400	1000	4800	800
	60	5700	1550	5200	1200	4800	1050	4300	800
	90	5200	1600	4700	1250	4300	1050	3800	850
290x45	10	7200	1200	7200	950	6500	800	5100	650
	20	7200	1200	6700	950	6300	800	5100	650
	40	6300	1250	5700	1000	5300	850	4700	650
	60	5700	1250	5100	1000	4700	850	4200	650
	90	5100	1300	4600	1000	4200	850	3700	700
290x70	10	7200	1550	7200	1200	7200	1000	6400	800
	20	7200	1550	7200	1200	7000	1050	6400	800
	40	7000	1550	6400	1250	6000	1050	5400	850
	60	6400	1600	5800	1250	5400	1050	4800	850
	90	5800	1650	5200	1300	4800	1100	4200	850
290x90	10	7200	1700	7200	1350	7200	1150	7200	900
	20	7200	1750	7200	1400	7200	1150	6800	950
	40	7200	1750	6800	1400	6400	1200	5800	950
	60	6800	1800	6200	1450	5800	1200	5200	950
	90	6200	1850	5600	1450	5200	1250	4600	1000

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) Maximium 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 minimium 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

© COPYRIGHT

Table 10 (cont)

Rafters or Purlins
Supporting Roof and Ceiling Loads

Size DxB (mm)	Roof & Ceiling Mass (kg/m2)	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	2400	400	1900	300	1600	250	1300	250
	20	2500	400	1900	300	1600	250	1300	250
	40	2500	400	1900	350	1700	300	1300	250
	60	2300	400	2000	350	1700	300	1400	250
	90	2000	450	1800	350	1600	300	1400	250
90x45	10	2800	450	2100	350	1800	300	1500	250
	20	2800	450	2200	350	1800	300	1500	250
	40	2800	450	2200	350	1900	300	1500	250
	60	2500	500	2200	400	1900	300	1600	250
	90	2200	500	1900	400	1700	350	1500	250
90x70	10	3500	600	2700	450	2200	400	1800	300
	20	3500	600	2700	450	2300	400	1800	300
	40	3200	600	2800	450	2300	400	1900	300
	60	2900	600	2500	500	2300	400	1900	350
	90	2500	600	2200	500	2000	400	1800	350
90x90	10	3900	650	3000	500	2500	450	2000	350
	20	3900	650	3100	500	2500	450	2000	350
	40	3500	650	3100	550	2600	450	2100	350
	60	3100	650	2700	550	2500	450	2100	350
	90	2700	700	2400	550	2200	450	1900	400
120x35	10	3300	500	2600	400	2200	350	1800	250
	20	3400	500	2600	400	2200	350	1800	250
	40	3500	500	2700	400	2200	350	1800	300
	60	3100	550	2700	400	2300	350	1900	300
	90	2700	550	2400	450	2100	350	1900	300
120x45	10	3800	600	3000	450	2500	400	2000	300
	20	3800	600	3000	450	2500	400	2000	300
	40	3700	600	3100	450	2600	400	2100	300
	60	3300	600	2900	500	2600	400	2100	300
	90	2900	600	2600	500	2300	400	2100	350
120x70	10	4700	750	3700	600	3100	500	2500	400
	20	4800	750	3800	600	3200	500	2500	400
	40	4200	750	3800	600	3200	500	2500	400
	60	3800	750	3400	600	3100	500	2600	400
	90	3400	800	3000	650	2700	550	2400	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) Maximium 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 minimium 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

© COPYRIGHT

Table 10 (cont)

Rafters or Purlins
Supporting Roof and Ceiling Loads

Size DxB (mm)	Roof & Ceiling Mass (kg/m2)	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	5300	800	4200	650	3500	550	2700	450
	20	5300	850	4200	650	3500	550	2800	450
	40	4500	850	4100	650	3600	600	2800	450
	60	4100	850	3600	700	3300	600	2900	450
	90	3600	900	3200	700	3000	600	2600	500
140x35	10	3900	600	3100	450	2600	400	2100	300
	20	4000	600	3100	450	2600	400	2100	300
	40	4000	600	3200	450	2700	400	2100	300
	60	3600	600	3100	500	2700	400	2200	300
	90	3100	600	2800	500	2500	400	2200	350
140x45	10	4400	650	3500	500	2900	450	2300	350
	20	4500	650	3600	550	3000	450	2400	350
	40	4300	700	3700	550	3100	450	2400	350
	60	3900	700	3400	550	3100	450	2500	350
	90	3400	700	3000	550	2700	500	2400	400
140x70	10	5500	850	4400	650	3700	550	2900	450
	20	5600	850	4500	650	3700	550	2900	450
	40	4900	850	4400	700	3800	600	3000	450
	60	4400	850	3900	700	3600	600	3100	450
	90	3900	900	3500	700	3200	600	2800	500
140x90	10	6200	950	4900	750	4200	650	3200	500
	20	6000	950	5000	750	4200	650	3200	500
	40	5200	950	4700	750	4300	650	3300	500
	60	4700	1000	4200	800	3900	650	3400	550
	90	4200	1000	3800	800	3400	700	3000	550
170x35	10	4800	700	3800	550	3200	450	2500	350
	20	4900	700	3900	550	3200	450	2500	350
	40	4900	700	4000	550	3300	450	2600	350
	60	4300	700	3800	550	3400	450	2700	350
	90	3800	750	3400	600	3100	500	2700_{10}	400
170x45	10	5500	800	4300	600	3600	500	2800	400
	20	5500	800	4400	600	3700	500	2900	400
	40	5200	800	4500	650	3800	550	2900	400
	60	4700	800	4100	650	3800	550	3000	450
	90	4100	850	3700	650	3300	550	2900	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) Maximium 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 minimium 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

© COPYRIGHT

Table 10 (cont)

Rafters or Purlins
Supporting Roof and Ceiling Loads

Size DxB (mm)	Roof & Ceiling Mass (kg/m2)	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	6800	1000	5400	800	4600	650	3500	500
	20	6800	1000	5500	800	4600	650	3600	550
	40	5900	1000	5300	800	4800	700	3600	550
	60	5300	1000	4800	800	4400	700	3800	550
	90	4800	1050	4200	850	3900	700	3400	550
170x90	10	7200	1100	6100	900	5100	750	4000	600
	20	7100	1100	6100	900	5200	750	4000	600
	40	6200	1150	5700	900	5300	750	4100	600
	60	5700	1150	5100	900	4700	800	4200	600
	90	5100	1200	4600	950	4200	800	3700	650
190x35	10	5400	750	4300	600	3600	500	2800	400
	20	5500	750	4400	600	3700	500	2900	400
	40	5400	750	4500	600	3800	500	2900	400
	60	4800	800	4300	600	3900	500	3000_{5}	400
	90	4300	800	3800	650	3400	550	3000_{15}	400
190x45	10	6100	850	4900	700	4100	550	3200	450
	20	6200	850	5000	700	4200	550	3200	450
	40	5800	850	5100	700	4300	600	3300	450
	60	5200	900	4600	700	4200	600	3400	450
	90	4600	900	4100	700	3700	600	3300_{5}	500
190x70	10	7200	1050	6100	850	5200	750	4000	550
	20	7200	1100	6200	850	5200	750	4000	600
	40	6500	1100	5900	900	5400	750	4100	600
	60	5900	1100	5300	900	4900	750	4300	600
	90	5300	1150	4700	900	4300	800	3800	600
190x90	10	7200	1200	6800	950	5800	800	4500	650
	20	7200	1200	6900	1000	5900	850	4600	650
	40	6900	1250	6300	1000	5900	850	4700	650
	60	6300	1250	5700	1000	5200	850	4700	700
	90	5700	1300	5100	1050	4700	900	4100	700
240x35	10	6900	900	5500	700	4700	600	3600	450
	20	7000	900	5600	700	4700	600	3600_{5}	450
	40	6800	950	5700	750	4900_{5}	600	3700_{15}	500
	60	6000	950	5400	750	4900_{10}	600	3800_{25}	500
	90	5400	950	4800	750	4300_{15}	650	3800_{35}	500

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) Maximium 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 minimium 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

© COPYRIGHT

Table 10 (cont)

Rafters or Purlins
Supporting Roof and Ceiling Loads

Size DxB (mm)	Roof & Ceiling Mass (kg/m2)	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	1000	6300	800	5300	700	4100	550
	20	7200	1050	6300	850	5400	700	4200	550
	40	7200	1050	6500	850	5500	700	4300_{5}	550
	60	6500	1050	5800	850	5300_{5}	700	4400_{15}	550
	90	5800	1100	5200	900	4700_{5}	750	4200_{25}	600
240x70	10	7200	1300	7200	1050	6600	900	5200	700
	20	7200	1300	7200	1050	6700	900	5300	700
	40	7200	1350	7200	1050	6800	900	5400	700
	60	7200	1350	6600	1100	6100	900	5400_{5}	700
	90	6600	1400	5900	1100	5400	950	4800_{5}	750
240x90	10	7200	1450	7200	1150	7200	1000	5800	800
	20	7200	1500	7200	1150	7200	1000	5900	800
	40	7200	1500	7200	1200	7200	1000	6100	800
	60	7200	1550	7100	1200	6500	1050	5800	800
	90	7100	1600	6300	1250	5800	1050	5200	850
290x45	10	7200	1200	7200	950	6500	800	5100_{5}	650
	20	7200	1200	7200	950	6600_{5}	800	5100_{10}	650
	40	7200	1250	7200	1000	6700_{10}	850	5300_{20}	650
	60	7200	1250	7000_{5}	1000	6400_{15}	850	5400_{35}	650
	90	7000	1300	6200_{5}	1000	5700_{15}	850	5000_{40}	700
290x70	10	7200	1550	7200	1200	7200	1000	6400	800
	20	7200	1550	7200	1200	7200	1050	6500	800
	40	7200	1550	7200	1250	7200	1050	6600_{10}	850
	60	7200	1600	7200	1250	7200	1050	6500_{15}	850
	90	7200	1650	7100	1300	6500	1100	5800_{20}	850
290x90	10	7200	1700	7200	1350	7200	1150	7200	900
	20	7200	1750	7200	1400	7200	1150	7200	950
	40	7200	1750	7200	1400	7200	1200	7200_{5}	950
	60	7200	1800	7200	1450	7200	1200	7000_{5}	950
	90	7200	1850	7200	1450	7000	1250	6200_{10}	1000

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) Maximium 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 minimium 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

© COPYRIGHT

Table 11

Roof Beams
Supporting Roof and Ceiling Loads

Size DxB (mm)	Roof Mass (kg/m2)	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									
170x45	10	3100	1250	2200	900	1800	750	1600	650	1400	550
	20	3200	1250	2200	900	1800	750	1600	650	1400	550
	40	2900	1300	2300	900	1900	750	1600	650	1400	600
	60	2600	1300	2000	900	1700	750	1500	650	1400_{5}	600
	90	2300	1100	1800	900	1500	750	1400	650	1300_{5}	600
170x70	10	4000	1550	2700	1100	2200	900	1900	800	1700	700
	20	3900	1550	2800	1100	2200	900	1900	800	1700	700
	40	3300	1550	2600	1100	2300	900	2000	800	1800	700
	60	3000	1500	2300	1150	2000	950	1800	800	1600	700
	90	2600	1300	2100	1000	1800	900	1600	800	1500	750
170x90	10	4400	1700	3000	1200	2500	1000	2100	850	1900	750
	20	4200	1700	3100	1200	2500	1000	2200	850	1900	800
	40	3600	1700	2800	1250	2400	1000	2200	900	2000	800
	60	3200	1600	2500	1250	2200	1050	2000	900	1800	800
	90	2800	1400	2200	1100	1900	900	1700	800	1600	800
190x45	10	3600	1400	2500	1000	2000	800	1700	700	1600	650
	20	3600	1400	2500	1000	2000	800	1800	700	1600	650
	40	3200	1450	2500	1000	2100	850	1800	700	1600_{5}	650
	60	2900	1450	2200	1050	1900	850	1700_{5}	750	1600_{10}	650
	90	2500	1200	2000	1000	1700	850	1500_{5}	750	1400_{10}	700
190x70	10	4500	1750	3100	1200	2500	1000	2200	850	1900	800
	20	4400	1750	3100	1250	2500	1000	2200	900	2000	800
	40	3700	1750	2900	1250	2500	1000	2200	900	2000	800
	60	3300	1600	2600	1250	2300	1050	2000	900	1800	800
	90	2900	1400	2300	1100	2000	1000	1800	900	1700	850
190x90	10	5000	1900	3400	1350	2800	1100	2400	950	2200	850
	20	4700	1900	3400	1350	2800	1100	2400	950	2200	850
	40	4000	1900	3200	1400	2700	1150	2400	1000	2200	900
	60	3600	1800	2800	1400	2500	1150	2200	1000	2000	900
	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 continous members. Subscript values indicate the minimium 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.

© COPYRIGHT

Table 11 (cont)

Roof Beams
Supporting Roof and Ceiling Loads

Size DxB (mm)	Roof Mass (kg/m2)	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	4600	1800	3100	1250	2600	1050	2200	900	2000_{5}	800
	20	4700	1800	3200	1250	2600	1050	2200_{5}	900	2000_{10}	800
	40	4100	1850	3200	1300	2700_{5}	1050	2300_{10}	900	2100_{15}	800
	60	3600	1800	2900	1300	2500_{5}	1050	2200_{15}	950	2000_{20}	850
	90	3200	1600	2500	1200	2200_{5}	1100	2000_{15}	950	1800_{20}	850
240x70	10	5800	2150	3900	1550	3200	1250	2700	1100	2500	1000
	20	5400	2150	3900	1550	3200	1300	2800	1100	2500	1000
	40	4600	2150	3700	1600	3200	1300	2900_{5}	1100	2600_{5}	1000
	60	4100	2000	3300	1600	2900	1300	2600	1150	2300_{10}	1000
	90	3700	1800	2900	1400	2500	1200	2300_{5}	1150	2100_{10}	1050
240x90	10	6400	2350	4300	1700	3500	1400	3100	1200	2700	1100
	20	5800	2350	4400	1750	3600	1400	3100	1250	2800	1100
	40	5000	2350	4000	1750	3500	1450	3100	1250	2800_{5}	1100
	60	4500	2200	3600	1800	3100	1450	2800	1250	2600_{5}	1150
	90	4000	2000	3200	1600	2800	1400	2500	1200	2300_{5}	1150
290x45	10	5600	2250	3800	1500	3100_{5}	1250	2700_{10}	1100	2400_{15}	950
	20	5700	2250	3900	1550	3200_{5}	1250	2700_{10}	1100	2400_{20}	1000
	40	4900	2250	3900	1550	3200_{10}	1250	2800_{20}	1100	2500_{25}	1000
	60	4400	2200	3500	1600	3000_{15}	1300	2700_{20}	1100	2400_{30}	1000
	90	3900	1900	3100_{5}	1500	2600_{15}	1300	2400_{25}	1150	2200_{30}	1050
290x70	10	7000	2600	4700	1850	3800	1550	3300	1350	3000_{5}	1200
	20	6500	2600	4800	1900	3900	1550	3400_{5}	1350	3000_{10}	1200
	40	5500	2600	4500	1900	3900	1550	3500_{10}	1350	3100_{15}	1200
	60	5000	2500	4000	1950	3500	1600	3100_{10}	1400	2800_{15}	1250
	90	4400	2200	3500	1700	3100_{5}	1500	2800_{10}	1400	2500_{20}	1250
290x90	10	7200	2850	5200	2100	4300	1700	3700	1500	3300	1300
	20	6800	2850	5300	2100	4300	1700	3800	1500	3400_{5}	1350
	40	5900	2800	4800	2150	4200	1750	3700_{5}	1500	3400_{10}	1350
	60	5400	2650	4300	2150	3800	1750	3400_{5}	1550	3100_{10}	1350
	90	4800	2400	3800	1900	3300	1600	3000_{5}	1500	2800_{10}	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 continous members. Subscript values indicate the minimium 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.

© COPYRIGHT

Table 11 (cont)

Roof Beams
Supporting Roof and Ceiling Loads

Size DxB (mm)	Roof Mass (kg/m2)	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
		Continuous Span									
170x45	10	3100	1250	2200	900	1800	750	1500	650	1300	550
	20	3200	1250	2200	900	1800	750	1500	650	1300	550
	40	3300	1300	2300	900	1900	750	1600	650	1400	600
	60	3400	1300	2300	900	1900	750	1600_{5}	650	1400_{15}	600
	90	3100	1350	2400	950	2000_{5}	750	1700_{20}	650	1400_{25}	600
170x70	10	4000	1550	2700	1100	2200	900	1900	800	1700	700
	20	4000	1550	2800	1100	2200	900	1900	800	1700	700
	40	4100	1550	2800	1100	2300	900	2000	800	1800	700
	60	4000	1550	2900	1150	2400	950	2000	800	1800	700
	90	3600	1550	2800	1150	2400	950	2100	850	1900_{15}	750
170x90	10	4400	1700	3000	1200	2500	1000	2100	850	1900	750
	20	4500	1700	3100	1200	2500	1000	2200	850	1900	800
	40	4600	1700	3100	1250	2600	1000	2200	900	2000	800
	60	4300	1700	3200	1250	2600	1050	2300	900	2000	800
	90	3900	1600	3100	1300	2700	1050	2300	900	2100	800
190x45	10	3600	1400	2500	1000	2000	800	1700	700	1400	650
	20	3600	1400	2500	1000	2000	800	1700	700	1500	650
	40	3700	1450	2600	1000	2100	850	1800	700	1500_{10}	650
	60	3800	1450	2600	1050	2100	850	1800_{15}	750	1600_{25}	650
	90	3400	1500	2700	1050	2200_{15}	850	1900_{30}	750	1600_{40}	700
190x70	10	4500	1750	3100	1200	2500	1000	2200	850	1900	800
	20	4500	1750	3100	1250	2500	1000	2200	900	2000	800
	40	4600	1750	3200	1250	2600	1000	2200	900	2000	800
	60	4500	1750	3300	1250	2700	1050	2300	900	2100_{10}	800
	90	4000	1650	3200	1300	2700	1050	2300_{15}	900	2100_{25}	850
190x90	10	5000	1900	3400	1350	2800	1100	2400	950	2200	850
	20	5100	1900	3400	1350	2800	1100	2400	950	2200	850
	40	5200	1900	3500	1400	2900	1150	2500	1000	2200	900
	60	4800	1900	3600	1400	3000	1150	2600	1000	2300	900
	90	4300	1750	3400	1450	3000	1200	2600	1050	2300_{15}	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 continous members. Subscript values indicate the minimium 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.

© COPYRIGHT

Table 11 (cont)

Roof Beams
Supporting Roof and Ceiling Loads

Size DxB (mm)	Roof Mass (kg/m2)	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
		Continuous Span									
240x45	10	4600	1800	3100	1250	2600	1050	2100	900	1800_{10}	800
	20	4700	1800	3200	1250	2600	1050	2100_{10}	900	1800_{20}	800
	40	4800	1850	3300	1300	2700_{10}	1050	2200_{25}	900	1900_{35}	800
	60	4900	1850	3300	1300	2700_{25}	1050	2300_{40}	950	2000_{55}	850
	90	4400	1800	3400_{20}	1350	2800_{45}	1100	2400_{65}	950	2000_{80}	850
240x70	10	5800	2150	3900	1550	3200	1250	2700	1100	2500	1000
	20	5800	2150	3900	1550	3200	1300	2800	1100	2500_{5}	1000
	40	6000	2150	4000	1600	3300	1300	2900_{10}	1100	2600_{20}	1000
	60	5600	2150	4100	1600	3400_{5}	1300	2900_{20}	1150	2600_{35}	1000
	90	5000	2000	4000	1650	3500_{20}	1350	3000_{40}	1150	2600_{55}	1050
240x90	10	6400	2350	4300	1700	3500	1400	3100	1200	2700	1100
	20	6500	2350	4400	1750	3600	1400	3100	1250	2800	1100
	40	6700	2350	4500	1750	3700	1450	3200	1250	2800_{10}	1100
	60	6100	2300	4600	1800	3800	1450	3300_{10}	1250	2900_{20}	1150
	90	5400	2100	4300	1800	3800_{10}	1500	3300_{25}	1300	2900_{40}	1150
290x45	10	5600	2250	3800	1500	3100_{10}	1250	2500_{20}	1100	2200_{30}	950
	20	5700	2250	3900	1550	3200_{20}	1250	2600_{30}	1100	2200_{40}	1000
	40	5900	2250	3900_{10}	1550	3200_{30}	1250	2700_{50}	1100	2300_{60}	1000
	60	5900	2200	4000_{20}	1600	3300_{50}	1300	2800_{70}	1100	2400_{85}	1000
	90	5300	2050	4200_{45}	1600	3400_{75}	1300	2900_{100}	1150	2400_{110}	1050
290x70	10	7000	2600	4700	1850	3800	1550	3300_{5}	1350	3000_{20}	1200
	20	7100	2600	4800	1900	3900	1550	3400_{15}	1350	3000_{25}	1200
	40	7200	2600	4900	1900	4000_{10}	1550	3500_{30}	1350	3100_{45}	1200
	60	6800	2500	5000	1950	4100_{25}	1600	3600_{45}	1400	3200_{65}	1250
	90	6000	2300	4800_{15}	1950	4200_{45}	1650	3600_{65}	1400	3200_{90}	1250
290x90	10	7200	2850	5200	2100	4300	1700	3700	1500	3300_{10}	1300
	20	7200	2850	5300	2100	4300	1700	3800_{5}	1500	3400_{15}	1350
	40	7200	2800	5400	2150	4400	1750	3800_{15}	1500	3400_{30}	1350
	60	7200	2650	5600	2150	4500_{15}	1750	3900_{30}	1550	3500_{45}	1350
	90	6500	2450	5200	2050	4600_{30}	1800	4000_{50}	1550	3600_{70}	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 continous members. Subscript values indicate the minimium 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.

© COPYRIGHT