

STANDARD SIZES



COVERING LAYER IN THE TRANSVERSE PANEL DIRECTION TT (WALL)

Nominal Thickness (mm)	Item	Layers	Lamella Structure (mm)								Standard Panel Widths (m)	Maximum Panel Length (m)				
			T	L	T	L	T	L	T	L						
45	XT3/45	3	15	15	15						2.2	/	2.4	/	2.6	8.25
65	XT3/65	3	15	35	15						2.2	/	2.4	/	2.6	8.25
85	XT3/85	3	35	15	35						2.2	/	2.4	/	2.6	8.25
105	XT3/105	3	35	35	35						2.2	/	2.4	/	2.6	8.25
135	XT5/135	5	35	15	35	15		35			2.2	/	2.4	/	2.6	8.25

COVERING LAYER IN THE LONGITUDINAL PANEL DIRECTION TL (CEILING/ROOF)

Nominal Thickness (mm)	Item	Layers	Lamella Structure (mm)								Standard Panel Widths (m)	Maximum Panel Length (m)				
			L	T	L	T	L	T	L	T						
85	XL3/85	3	35	15	35						2.2	/	2.4	/	2.6	8.25
105	XL3/105	3	35	35	35						2.2	/	2.4	/	2.6	8.25
135	XL5/135	5	35	15	35	15		35			2.2	/	2.4	/	2.6	8.25
155	XL5/155	5	35	35	15	35		35			2.2	/	2.4	/	2.6	8.25
175	XL5/175	5	35	35	35	35		35			2.2	/	2.4	/	2.6	8.25
210	XL5/210	5	35	35	35*2	35		35			2.2	/	2.4	/	2.6	8.25

Max dimensions of master elements 8250x2700x210mm

Min dimensions of master elements 2200x1800x85mm

Special XLAM element designs are available on request

Charged dimensions: Minimum length x minimum width required for master panel, including any cut-outs which may result

Charged length: from minimum production length of 2.2m up to max 8.25m, in 10cm increments

Charged width: 2.20 / 2.40 / 2.60 / 2.80

CLT STRENGTH



COVERING LAYER IN THE TRANSVERSE PANEL DIRECTION TT (WALL)

Nominal Thickness (mm)	Item	Layers	Lamella Structure (mm)				$M_{t,0}$ (kNm/m of width)	Major Strength Direction			
			T	L	T	L		$(E)_{eff,0}$ (Nmm ² /m of width)	$(GA)_{eff,0}$ (N/m of width)	$V_{r,0}$ (kN/m of width)	
45	XT3/45	3	15	15	15	3.18	5.71E+10	2.66E+06	12.00		
65	XT3/65	3	15	35	15	5.84	1.52E+11	3.34E+06	17.33		
85	XT3/85	3	35	15	35	11.71	3.97E+11	6.59E+06	22.67		
105	XT3/105	3	35	35	35	17.32	7.26E+11	6.20E+06	28.00		
135	XT5/135	5	35	15	35	15	35	27.11	1.46E+12	1.32E+07	36.00

COVERING LAYER IN THE LONGITUDINAL PANEL DIRECTION TL (CEILING/ROOF)

Nominal Thickness (mm)	Item	Layers	Lamella Structure (mm)				$M_{t,0}$ (kNm/m of width)	Major Strength Direction			
			L	T	L	T		$(E)_{eff,0}$ (Nmm ² /m of width)	$(GA)_{eff,0}$ (N/m of width)	$V_{r,0}$ (kN/m of width)	
45	XL3/45	3	15	15	15	3.18	5.71E+10	2.66E+06	12.00		
65	XL3/65	3	15	35	15	5.84	1.52E+11	3.34E+06	17.33		
85	XL3/85	3	35	15	35	11.71	3.97E+11	6.59E+06	22.67		
105	XL3/105	3	35	35	35	17.32	7.26E+11	6.20E+06	28.00		
135	XL5/135	5	35	15	35	15	35	27.11	1.46E+12	1.32E+07	36.00
155	XL5/155	5	35	35	15	35	35	32.94	2.04E+12	9.36E+06	41.33
175	XL5/175	5	35	35	35	35	35	39.86	2.78E+12	1.24E+07	46.67
210	XL5/210	5	35	35	35*2	35	35	53.84	4.51E+12	1.85E+07	56.00

Max dimensions of master elements 8250x2700x210mm

Min dimensions of master elements 2200x1800x45mm

Special XLAM element designs are available on request

Charged dimensions: Minimum length x minimum width required for master panel, including any cut-outs which may result

Charged length: from minimum production length of 2.2m up to max 8.25m, in 10cm increments

Charged width: 2.20 / 2.40 / 2.60 / 2.80

SPAN TABLE

FLOORS - 1KN Dead Load

XLAM

Panel Layout	Nominal Thickness (mm)	SIMPLE SPAN (m)				CONTINUOUS SPAN (m)				CANTILEVER SPAN (m)			
		Vibration	0.5KN	1.5KN	2.5KN	Vibration	0.5KN	1.5KN	2.5KN	Vibration	0.5KN	1.5KN	2.5KN
XL3/45	45	1.85	1.85	1.75	1.50	2.22	2.22	2.22	1.95	0.69	0.69	0.69	0.66
XL3/65	65	2.35	2.35	2.35	2.10	2.82	2.82	2.82	2.75	0.87	0.87	0.87	0.87
XL3/85	85	3.01	3.01	3.01	2.95	3.61	3.61	3.61	3.61	1.11	1.11	1.11	1.11
XL3/105	105	3.50	3.50	3.50	3.50	4.20	4.20	4.20	4.20	1.30	1.30	1.30	1.30
XL5/135	135	4.16	4.16	4.16	4.16	4.99	4.99	4.99	4.99	1.54	1.54	1.54	1.54
XL5/155	155	4.50	4.50	4.50	4.50	5.40	5.40	5.40	5.40	1.67	1.67	1.67	1.67
XL5/175	175	4.86	4.86	4.86	4.86	5.83	5.83	5.83	5.83	1.80	1.80	1.80	1.80
XL5/210	210	5.47	5.47	5.47	5.47	6.56	6.56	6.56	6.56	2.03	2.03	2.03	2.03

NOTES:

- Material is S5 Graded SA Pine
- Laminations are 35mm or 15mm thick
- Specified modulus of elasticity and strength in major strength direction: $E_0 = 9500 \text{ MPa}$; $f_{b,0} = 11.8 \text{ MPa}$; $f_{v,0} = 1.5 \text{ MPa}$; $f_{vr,0} = 0.5 \text{ MPa}$; $f_{c,0} = 11.5 \text{ MPa}$; $f_{t,0} = 5.5 \text{ MPa}$
- Specified modulus of elasticity and strength in minor strength direction: $E_{90} = 9500 \text{ MPa}$; $f_{b,90} = 11.8 \text{ MPa}$; $f_{v,90} = 1.5 \text{ MPa}$; $f_{vr,90} = 0.5 \text{ MPa}$;
- Dead load includes panel self-weight plus 1.0 kPa flooring load.
- Bold text indicates span governed by vibration; regular text indicates span governed by dead plus live load deflection limit of $L/300$.
- All spans are assumed to be equal for multi-span panels.
- Spans shown represent distance between the centerlines of supports.
- Maximum spans shown are only to be used for preliminary design.
- Engineer to ensure that $L/300$ deflection limit is appropriate for intended use.
- The following factors were used for calculations: $K_D = 1.0$; $K_S = 1.0$; $K_T = 1.0$; $K_H = 1.0$.
- Shear stiffness has been reduced by 50% to account for creep deformation.

Max dimensions of master elements 8250x2700x210mm

Min dimensions of master elements 2200x1800x45mm

Special XLAM element designs are available on request

Charged dimensions: Minimum length x minimum width required for master panel, including any cut-outs which may result


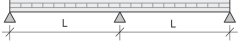
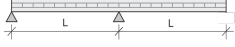
Charged length: from minimum production length of 2.2m up to max 8.25m, in 10cm increments

Charged width: 2.20 / 2.40 / 2.60 / 2.80

SPAN TABLE

ROOFS - 0.5KN Dead Load

XLAM

Panel Layout	Nominal Thickness (mm)	SIMPLE SPAN (m)			CONTINUOUS SPAN (m)			CANTILEVER SPAN (m)		
										
		0.5KN	1.5KN	2.5KN	0.5KN	1.5KN	2.5KN	0.5KN	1.5KN	2.5KN
XL3/45	45	2.40	1.85	1.60	3.00	2.40	2.05	1.05	0.80	0.70
XL3/65	65	3.30	2.60	2.25	4.20	3.30	2.85	1.45	1.10	0.95
XL3/85	85	4.60	3.60	3.15	5.80	4.60	4.00	2.00	1.55	1.35
XL3/105	105	5.60	4.40	3.80	7.10	5.60	4.85	2.45	1.90	1.60
XL5/135	135	7.10	5.60	4.90	9.00	7.10	6.20	3.10	2.45	2.10
XL5/155	155	7.90	6.25	5.40	10.00	7.95	6.85	3.45	2.70	2.30
XL5/175	175	8.80	6.95	6.05	11.15	8.80	7.65	3.85	3.00	2.60
XL5/210	210	10.40	8.20	7.10	13.10	10.35	9.00	4.55	3.55	3.10

NOTES:

1. Material is S5 Graded SA Pine
2. Laminations are 35mm or 15mm thick
3. Specified modulus of elasticity and strength in major strength direction: $E_0 = 7800 \text{ MPa}$; $f_{b,0} = 11.5 \text{ MPa}$; $f_{v,0} = 1.6 \text{ MPa}$; $f_{vr,0} = 0.4 \text{ MPa}$; $f_{c,0} = 18 \text{ MPa}$; $f_{t,0} = 6.7 \text{ MPa}$
4. Specified modulus of elasticity and strength in minor strength direction: $E_0 = 7800 \text{ MPa}$; $f_{b,0} = 11.5 \text{ MPa}$; $f_{v,0} = 1.6 \text{ MPa}$; $f_{vr,0} = 0.4 \text{ MPa}$; $f_{c,0} = 18 \text{ MPa}$; $f_{t,0} = 6.7 \text{ MPa}$
5. Dead load includes panel self-weight plus 0.5 kPa additional load.
6. Bold text indicates span governed by manufacturing size and are limited to half the length of the maximum panel size (4100mm)
7. All spans are assumed to be equal for multi-span panels.
8. Spans shown represent distance between the centerlines of supports.
9. Maximum spans shown are only to be used for preliminary design.
10. Engineer to ensure that $L/300$ deflection limit is appropriate for intended use.
11. The following factors were used for calculations: $K_D = 1.0$; $K_S = 1.0$; $K_T = 1.0$; $K_H = 1.0$.
12. Shear stiffness has been reduced by 50% to account for creep deformation.

Max dimensions of master elements 8250x2700x210mm

Min dimensions of master elements 2200x1800x45mm

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Charged dimensions: Minimum length x minimum width required for master panel, including any cut-outs which may result

Charged length: from minimum production length of 2.2m up to max 8.25m, in 10cm increments

Charged width: 2.20 / 2.40 / 2.60 / 2.80