

TECHNICAL SHEET —

art —
massif
- wood structure -



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OUR WOOD

OUR SPECIES

- Spruce-Pine-Fir (SPF)
- Douglas Fir (D-Fir)

SFI CERTIFICATION OPTION

STRESS GRADE OF DECKING

- SPF No. 2 and better | $G = 0.42$
- D-Fir No. 2 and better | $G = 0.49$

STRESS GRADE OF BEAMS AND COLUMNS

- Spruce-Pine: 20f-EX, 12c-E
 $G = 0.44$
- D-Fir: 24f-EX, 20f-EX,
16c-E and 12c-E
 $G = 0.49$

WOOD MOISTURE CONTENT

- 12 % +/- 2 %

APPEARANCE GRADE

- Architectural

MANUFACTURING

- Certified products CSA 0122-16
- Certified plant CSA 0177-06
- Certified adhesive CSA 0112.9

INSPECTION AGENCY

- APA Plant #1104



TIMBER DECKING (GLT)

— TIMBER DECKING (GLT)

GLUED LAMINATED

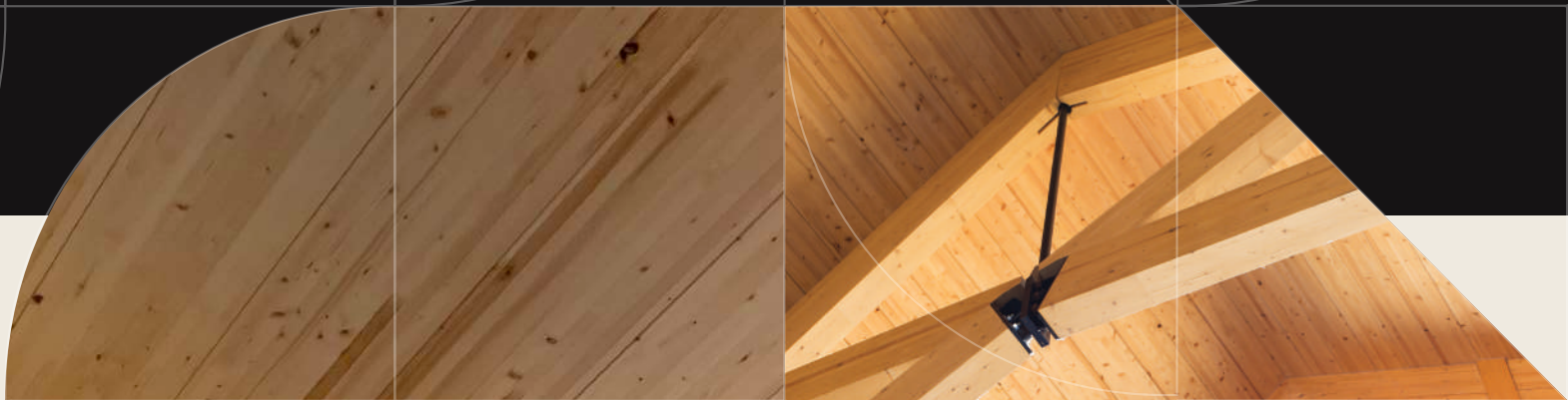
TECHNICAL DATA

APPLICATIONS: Decking or roofing

This decking alone cannot be used as a diaphragm. Plywood must be added to act as the diaphragm.

THICKNESSES: 38 mm // 1 1/2" 60 mm // 2 3/8" 80 mm // 3 1/8" 130 mm // 5 1/8"

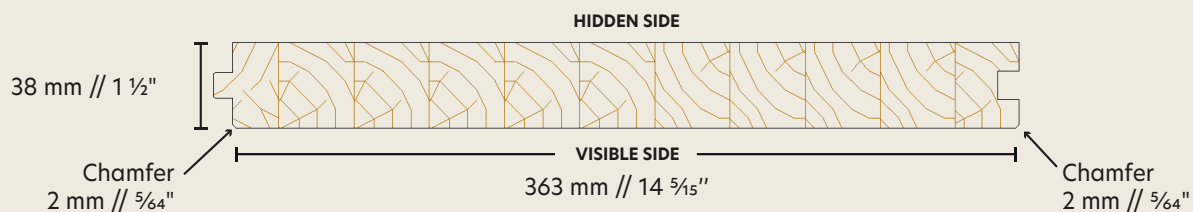
LENGTHS: Up to 9.75 m // 32'



TECHNICAL PROFILES

THICKNESS: 38 mm // 1 1/2"

COVERAGE WIDTH: 363 mm // 14 15/16"

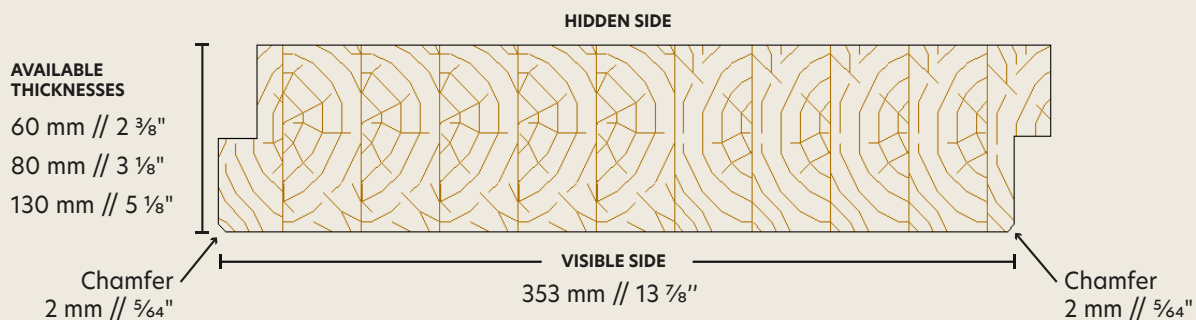


THICKNESS: 60 mm // 2 3/8"

80 mm // 3 1/8"

130 mm // 5 1/8"

COVERAGE WIDTH: 353 mm // 13 7/8"



— TIMBER DECKING (GLT)

SPAN TABLE*

GLUED TIMBER - NO. 2 AND BETTER

Spans for D-Fir are similar.

Spans calculated under National Building Code of Canada 2015 and CSA 086-14 design methods.

kPa and m converted in psf and ft.

FLOORING

DEFLECTION CRITERIA: L/240 under full loads, L/360 under live loads

DEAD LOADS: D = 1 kPa // 20 PSF

THICKNESS →	38 mm // 1 1/2"		60 mm // 2 3/8"		80 mm // 3 1/8"		130 mm // 5 1/8"	
LOADS ↓	Single span	Double span	Single span	Double span	Single span	Double span	Single span	Double span
L = 1.9 kPa L = 40 psf	1.60 m 5.25'	2.10 m 6.9'	2.60 m 8.5'	3.40 m 11.1'	3.50 m 11.5'	4.60 m 15'	5.70 m 18.7'	7.60 m 25'
L = 2.4 kPa L = 50 psf	1.5 m 5'	2.00 m 6.5'	2.40 m 7.8'	3.20 m 10.1'	3.20 m 10.5'	4.30 m 14.1'	5.30 m 17.4'	7.10 m 23.3'
L = 4.8 kPa L = 100 psf	1.20 m 4'	1.60 m 5.25'	1.90 m 6.2'	2.50 m 8.2'	2.60 m 8.5'	3.40 m 11.1'	4.20 m 13.8'	5.60 m 18.4'

ROOFING

DEFLECTION CRITERIA: L/180 under full loads, L/240 under live loads.

DEAD LOADS: D = 1 kPa // 20 PSF

THICKNESS →	38 mm // 1 1/2"		60 mm // 2 3/8"		80 mm // 3 1/8"		130 mm // 5 1/8"	
LOADS ↓	Single span	Double span	Single span	Double span	Single span	Double span	Single span	Double span
S = 2.5 kPa S = 52 psf	1.70 m 5.6'	2.30 m 7.5'	2.70 m 8.9'	3.60 m 11.8'	3.70 m 12.1'	4.90 m 16'	6.00 m 19.7'	8.00 m 26.25'
S = 3.5 kPa S = 73 psf	1.60 m 5.25'	2.10 m 6.9'	2.50 m 8.2'	3.30 m 10.8'	3.40 m 11.1'	4.50 m 14.8'	5.50 m 18'	7.40 m 24.3'
S = 4.5 kPa S = 94 psf	1.40 m 4.6'	1.90 m 6.2'	2.30 m 7.5'	3.00 m 9.85'	3.10 m 10.1'	4.10 m 13.4'	5.10 m 16.7'	6.70 m 22'

*This table should be used as a guide only. The values provided give an estimate of possible ranges. Refer to an engineer for full verification based on the actual conditions of the project being designed.



BEAMS + COLUMNS



— BEAMS + COLUMNS

STRAIGHT BEAM

TECHNICAL DATA

LAMELLA THICKNESS: 34.7 mm // 1 3/8"

WIDTHS: 80 mm // 3 1/8" 130 mm // 5 1/8" 175 mm // 6 7/8" 215 mm // 8 7/16"
265 mm // 10 7/16" 315 mm // 12 3/8" 365 mm // 14 3/8"

HEIGHTS: From 4 1/8" to 49 3/16" 104 (104 mm to 1.249 m) in 34.7 mm increments
Additional heights available on request

LENGTHS: Continuous elements without joints: up to 20.7 m // 68'

DIMENSIONAL TOLERANCES Width: +/- 2 mm
Height: +/- 0.4 mm per lamella for a max of +/- 6 mm



ROUND COLUMNS

TECHNICAL DATA

DIAMETERS: 125 mm to 355 mm // 5" to 14"

LENGTHS: Up to 9.75 m // 32'
Up to 4.88 m // 16' for small diameters (Ø 125 mm // 5")



— BEAMS + COLUMNS

CURVED BEAMS

TECHNICAL DATA

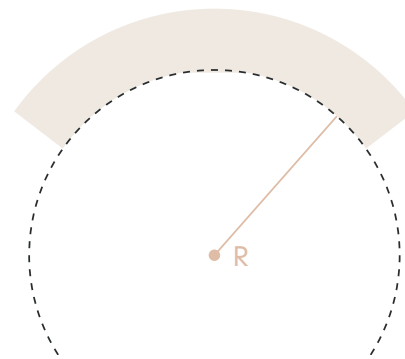
SECTION HEIGHTS AND WIDTHS:
Same as for beams and columns

RADII OF CURVATURE: Minimum radius of 1 829 mm (72")



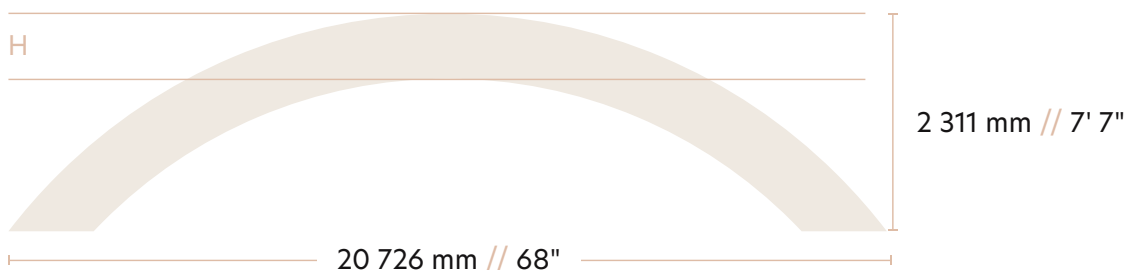
TABLE : Lamella thickness based on radii of curvature

RADIUS OF CURVATURE *R		Lamella thickness
(mm)	(inch)	(mm)
9 500 +	374 +	34.7
6 200 - 9 499	244 - 374	25
2 200 - 6 199	87 - 244	13
1 829 - 18 289	72 - 87	6



*R : Radius of curvature
on the inner surface (intrados).

CURVED DIMENSIONS: The overall dimensions of the curved beam (a continuous section) must fall within the rectangle below to meet manufacturing limits. For other dimensions that fall outside this range, please contact us.



CONSTRAINTS HOLDING BACK YOUR IDEAS?
Let's discuss tailored solutions, we love a good challenge!



— BEAMS + COLUMNS

STANDARD SECTION

	80 mm // 3 1/8"	130 mm // 5 1/8"	175 mm // 6 7/8"	215 mm // 8 7/16"	265 mm // 10 7/16"	315 mm // 12 3/8"	365 mm // 14 3/8"
104 mm // 4 1/8"	●						
139 mm // 5 1/2"	●	●					
174 mm // 6 7/8"	●	●	●				
208 mm // 8 3/16"	●	●	●	●			
243 mm // 9 9/16"	●	●	●	●	●		
278 mm // 10 15/16"	●	●	●	●	●	●	●
312 mm // 12 5/16"	●	●	●	●	●	●	●
347 mm // 13 11/16"	●	●	●	●	●	●	●
382 mm // 15 1/16"	●	●	●	●	●	●	●
416 mm // 16 3/8"	●	●	●	●	●	●	●
451 mm // 17 3/4"	●	●	●	●	●	●	●
486 mm // 19 1/8"	●	●	●	●	●	●	●
521 mm // 20 1/2"	●	●	●	●	●	●	●
555 mm // 21 7/8"	●	●	●	●	●	●	●
590 mm // 23 1/4"	●	●	●	●	●	●	●
625 mm // 24 5/8"	●	●	●	●	●	●	●
659 mm // 25 15/16"	●	●	●	●	●	●	●
694 mm // 27 5/16"	●	●	●	●	●	●	●
729 mm // 28 11/16"	●	●	●	●	●	●	●
763 mm // 30 1/16"	●	●	●	●	●	●	●
798 mm // 31 7/16"	●	●	●	●	●	●	●
833 mm // 32 13/16"	●	●	●	●	●	●	●
868 mm // 34 3/16"	●	●	●	●	●	●	●
902 mm // 35 1/2"	●	●	●	●	●	●	●
937 mm // 36 7/8"	●	●	●	●	●	●	●
972 mm // 38 1/4"	●	●	●	●	●	●	●
1006 mm // 39 5/8"		●	●	●	●	●	●
1041 mm // 41"		●	●	●	●	●	●
1076 mm // 42 3/8"		●	●	●	●	●	●
1110 mm // 43 1/16"		●	●	●	●	●	●
1145 mm // 45 1/16"		●	●	●	●	●	●
1180 mm // 46 7/16"		●	●	●	●	●	●
1215 mm // 47 13/16"		●	●	●	●	●	●
1249 mm // 49 3/16"		●	●	●	●	●	●

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