



Structural Wood Systems

Douglas Fir Glulam - ANSI

Made to the highest specifications and standards in a regularly inspected environment focused on quality. Western Archrib's glulam products are second to none. From straight glulam beams to complex curved shapes Western Archrib glulam is the ideal product.

Manufacturing Standards

Our production facilities are certified by the APA – Engineered Wood Systems to produce glulam in accordance with:
ANSI – A190.1 American National Standards Institute

As part of our commitment to the environment we offer Chain-of-Custody Certification on products manufactured with FSC® Certified Wood.

FSC® – STD-40-004 Companies supplying and manufacturing FSC® Certified Products

Manufacturing Locations

Edmonton, Alberta, Canada
Boissevain, Manitoba, Canada

Specifications

Certifications:

- APA certified glulam to ANSI A190.1-2017

Standard Sizes:

- Width – 3 1/8", 5 1/8", 6 7/8", 8 1/2", 10 3/8", 12 3/8", 14 1/4", 15 3/4", 17 1/4", 19 1/4", 21 1/4", 23 1/4", 25 1/4"
- Depth – Minimum 4 1/2" up to a maximum of 84" in increments of 1 1/2".
- Length – available in lengths up to 150'
- Custom sizes available upon request

Stress Grade:

- Typical grades include 24F-V4 and 24f-V8, see below link for APA complete design guide and stress grades:
<https://www.apawood.org/ansi-117>

Profiles/Shapes:

- | | | |
|-----------|----------------------------|--------------------------|
| • Beams | • Pitch Tapered Beam | • Shaped profiles |
| • Columns | • Round/Elliptical Columns | • Bridges |
| • Curves | • Multi Radii Curves | • Long Span Beams/Curves |
| • Arches | • Tudor Arches | |

Appearance Classifications – ANSI A190.1 - 2017

- *Industrial* – sides of member are surfaced true to specified dimensions. Occasional planing misses may occur, filling or patching is not required.
- *Architectural* – sides of member are surfaced smooth to specified dimensions, free from misses, wane and low laminations. Defects over 3/4" in diameter are patched or filled.
- *Premium* - sides of member are surfaced smooth to specified dimensions, free from misses, wane and low laminations. Exposed wide face laminations have knot restriction limited to 20% of net face width. Defects over 3/4" in diameter are patched or filled.

Design Values:

- See below table for typical design values, use ANSI A117-2015 guide for complete design values

westernarchrib.com	1.780.465.9771	4315 - 92 Avenue NW, Edmonton, Alberta, Canada T6B 3M7
	1.204.534.2486	750 Johnson Street N, Boissevain, Manitoba, Canada R0K 0E0



Structural Wood Systems

Reference Design Values for Douglas Fir Glulam from ANSI 117-2015:

			24F-V4	24F-V8
Bending About X-X Axis	Extreme Fiber in Bending, Bottom of Beam Positive Bending Moment	F_{bx+} (psi)	2400	2400
	Extreme Fiber in Bending, Top of Beam Negative Bending Moment	F_{bx-} (psi)	1850	2400
	Compression Perpendicular to Grain, Tension Face	F_{cLx} (psi)	650	650
	Compression Perpendicular to Grain, Compression Face	F_{cLx} (psi)	650	650
	Shear Parallel to Grain	F_{vx} (psi)	265	265
	Modulus of Elasticity	$E_{x \text{ true}}$ (10^6 psi)	1.9	1.9
	Modulus of Elasticity	$E_{x \text{ app}}$ (10^6 psi)	1.8	1.8
	Modulus of Elasticity	$E_{x \text{ min}}$ (10^6 psi)	0.95	0.95
Bending About Y-Y Axis	Extreme Fiber in Bending	F_{by} (psi)	1450	1550
	Compression Perpendicular to Grain	F_{cLy} (psi)	560	560
	Shear Parallel to Grain	F_{vy} (psi)	230	230
	Modulus of Elasticity	$E_{y \text{ true}}$ (10^6 psi)	1.7	1.7
	Modulus of Elasticity	$E_{y \text{ app}}$ (10^6 psi)	1.6	1.6
	Modulus of Elasticity	$E_{y \text{ min}}$ (10^6 psi)	0.85	0.85
Axial Loaded	Tension Parallel to Grain	F_t (psi)	1100	1100
	Compression Parallel to Grain	F_c (psi)	1650	1650

Table: Values taken from the APA

* The information presented in the above table has been taken from the APA ANSI 117-2015 design guide. See guide for specific notes and further information alternate grade combinations.