



Structural Wood Systems

Douglas Fir Glulam - CSA

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:
CSA – 0122 Canadian Standards Association

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

Standard Sizes:

- Width – 80mm, 130mm, 175mm, 215mm, 265mm, 315mm, 365mm, 400mm, 440mm, 490mm, 540mm, 590mm, and 640mm
- Depth – Minimum 114mm up to a maximum of 2128mm in increments of 38 mm
- Length – available in lengths up to 46m

Stress Grades:

- CSA – Douglas Fir-Larch: 24f-EX, 24f-E, 20f-EX, 20f-E, 16c-E, 18t-E

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 – CSA 0122

- *Industrial (Planned) – sides of member are surfaced true to specified dimensions. Occasional planing misses may occur, filling or patching is not required.*
- *Commercial – sides of member are surfaced true to specified dimensions, free form squeezed-out adhesive, and sanded smooth. Planing misses along laminations are patched. Defects over 19mm in diameter are patched or filled.*
- *Quality – sides of member are surfaced true to specified dimensions, free form squeezed-out adhesive, and sanded smooth. Planing misses along laminations are patched. All defects are patched or filled.*

Design Values:

- See below table for beam and column design values



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Specified Strengths and Modulus of Elasticity - CSA Douglas Fir:

| | | 24f-E | 24f-EX | 20f-E | 20f-EX | 16c-E |
|--|-----------------|--------------|---------------|--------------|---------------|--------------|
| Bending Moment (pos.) | fb | 30.6 | 30.6 | 25.6 | 25.6 | 14 |
| Bending Moment (neg.) | fb | 23 | 30.6 | 19.2 | 25.6 | 14 |
| Longitudinal Shear | fv | 2 | 2 | 2 | 2 | 2 |
| Compression parallel | fc | 30.2* | 30.2* | 30.2* | 30.2* | 30.2 |
| Compression parallel combined with bending | fc _b | 30.2* | 30.2 | 30.2* | 30.2 | 30.2 |
| Compression Perpendicular | | | | | | |
| -compression face bearing | fc _b | 7 | 7 | 7 | 7 | 7 |
| -tension face bearing | fc _b | 7 | 7 | 7 | 7 | 7 |
| Tension net section | ft _n | 20.4* | 20.4 | 20.4* | 20.4* | 20.4 |
| Tension gross section | ft _g | 15.3* | 15.3 | 15.3* | 15.3 | 15.3 |
| Tension perpendicular to grain | ft _p | .83 | .83 | .83 | .83 | .83 |
| Modulus of elasticity | E | 13100 | 13100 | 12400 | 12400 | 12400 |

* The use of this stress grade for this primary application is not recommended

Notes:

- (1) Designers are advised to check the availability of grades before specifying.
- (2) Tabulated values are based on the following standard conditions:
 - (a) dry service conditions; and
 - (b) standard term duration of load.

The information presented in the above table has been taken from the CSA 086-17 Engineering Design in Wood guide. See guide for specific notes and further information.