



COMPANY, INC.

Quality Manufacturers of Glued Laminated Beams and Arches

GL3000

IJC GLULAM

THE HEADER & BEAM ALTERNATIVE

LVL's very high tension parallel to grain strength makes it ideally suited as an outermost tension lamination for glulam. LVL has better mechanical properties and dimensional stability than sawn lumber. And, because it is manufactured in long lengths, it is not necessary to introduce an end joint into these laminations. This eliminates one of the key variables controlling the strength of conventional glulams.

Design properties of 30F-2.1E means that GL3000 has an allowable bending stress of 3000 psi, which is 24% higher than conventional glulam, and a modulus of elasticity of 2,100,000 psi or about 17% higher than traditional glulam.

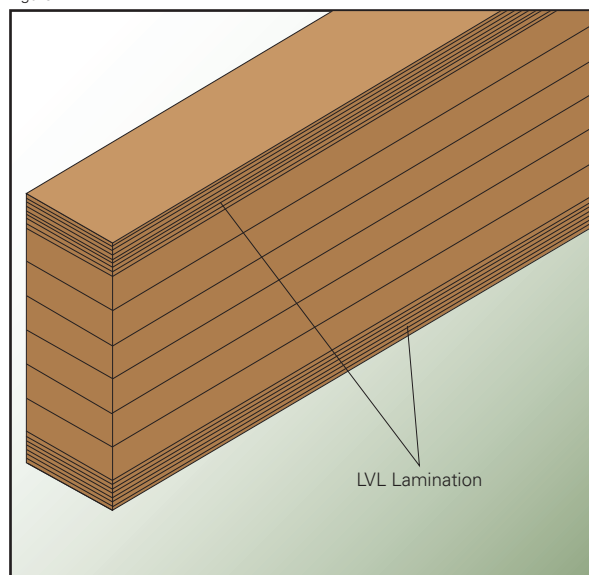
Design properties for GL3000 glulams have been verified by APA based on full-scale beam tests and the use of a computer simulation model developed by APA called Glulam Allowable Properties (GAP). Data can be found in EWS publication Y117, Glulam Design Properties and Layup Combinations available at www.apawood.org.

GL3000 is supplied as a balanced layup, which means it has the LVL laminations on both the top and bottom of the beam (see Figure 1 at right). This eliminates a common concern in the field regarding beams "installed upside down".

The GL3000 glulam is manufactured with zero camber for easier use in floor framing applications. It is touch planed after gluing to achieve proper width. GL3000 is competitively priced against all other 3000F products including LVL and PSL.

GL3000 comes in I-joist compatible depths of 9 1/2", 11", 14" and 16". In addition, 20", 22" and 24" and custom depths are available upon request.

Figure 1



DESIGN PROPERTY COMPARISONS

DESIGN PROPERTY COMPARISON TABLE (ALL VALUES IN PSI)

| Design Property | Calvert GL3000 ⁽¹⁾ | Parallam® PSL ⁽²⁾ | LVL ⁽³⁾ |
|-----------------|-------------------------------|------------------------------|-----------------------|
| F _b | 3000 | 2900 | 2925 |
| MOE | 2.1 × 10 ⁶ | 2.0 × 10 ⁶ | 2.0 × 10 ⁶ |
| F _v | 300 | 290 | 285 |

PERFORMANCE COMPARISONS

PERFORMANCE COMPARISON TABLE - FLOOR 100%

| Clear Span (feet) | Design Load LL/TL (plf) | Calvert GL3000 ⁽¹⁾ | Parallam® PSL ⁽²⁾ | LVL ⁽³⁾ |
|-------------------|-------------------------|---------------------------------------|--------------------------------------|--|
| 14 | 520/650 | 5 ^{7/16} × 11 ^{7/8} | 5 ^{1/4} × 11 ^{7/8} | 3 Ply 1 ^{3/4} × 11 ^{7/8} |
| 16 | 560/700 | 5 ^{7/16} × 14 | 5 ^{1/4} × 14 | 3 Ply 1 ^{3/4} × 14 |
| 18 | 640/800 | 7 × 14 | 7 × 14 | 3 Ply 1 ^{3/4} × 14 |

PERFORMANCE COMPARISON TABLE - ROOF 115%

| Clear Span (feet) | Design Load LL/TL (plf) | Calvert GL3000 ⁽¹⁾ | Parallam® PSL ⁽²⁾ | LVL ⁽³⁾ |
|-------------------|-------------------------|--------------------------------------|--------------------------------------|--|
| 12 | 390/520 | 3 ^{1/2} × 9 ^{1/2} | 3 ^{1/2} × 9 ^{1/2} | 2 Ply 1 ^{3/4} × 9 ^{1/2} |
| 16 | 420/560 | 3 ^{1/2} × 11 ^{7/8} | 3 ^{1/2} × 11 ^{7/8} | 2 Ply 1 ^{3/4} × 11 ^{7/8} |
| 18 | 480/640 | 3 ^{1/2} × 14 | 3 ^{1/2} × 14 | 2 Ply 1 ^{3/4} × 14 |

(1) Calvert GL3000 is a registered trade name for the Calvert Company.

(2) Parallam® PSL is a registered trademark of TRus Joist, a Weyerhaeuser company.

(3) Values are for commonly-available laminated veneer lumber (LVL).

