

# **MAX-CORE<sup>®</sup> LVL**

**IB MAX-CORE LVL** provides the superior performance and durability of engineered wood. **IB MAX-CORE LVL** is perfectly suited to spans bearing heavy loads and multi-span applications.

Our **IB MAX-CORE LVL** is ultrasonically tested and graded wood, solving the decreased dimensional stability and uniformity problems commonly associated with increased lumber sizes.

## ENGINEERED FOR QUALITY

- **IB MAX-CORE LVL** is cured in a controlled process in which waterproof adhesives boost stability and reduce warps and twists. As a result, checking is minimized.
- **IB MAX-CORE LVL** is machine ripped to generate uniform size and rigid, flat surfaces with inherently superior nail-holding characteristics.
- **IB MAX-CORE LVL** is made with aspen veneers in accordance with the in-plant manufacturing standard approved by APA {Laminated Veneer Lumber Product Report-L318}. **IB MAX-CORE LVL** is available in the width of 1 ¾ inch., depths of 3 ½ inches to 24 inches, and lengths up to 60 feet.

## FEATURES AND BENEFITS

- Produce a flat floor since they are manufactured with uniform dimension and quality controlled.
- Floor systems can be designed to use fewer framing pieces which speeds up installation and can reduce labor costs.
- Reduces waste on the jobsite compared to dimensional lumber.
- Labor and material savings can be achieved by reducing bridging requirements.
- EWP are often stronger and less prone to humidity-induced warping than equivalent solid woods.
- Can be cut with conventional tools, are easy to nail and glue.
- EWP weighs less than solid wood beams.
- **IB** provides high quality, deep depth products which will allow you to bid – and win – commercial projects you may not have been able to consider in the past.
- Whether you've had to turn down jobs because you could not get the deep depth products you needed or because you simply haven't chosen to dive in to the deep end, now may be the time.
- **IB** has deep depth options of up to 24" for LVL that most other manufacturers do not offer.
- **IB** is here to support you through the technical and engineering process.

## GUARANTEE AND WARRANTY

**IB** provides and tests its products to very high-quality control standards. We are confident that our products will provide our customers with consistent high performance when handled and installed in accordance with our Installation Guide. We guarantee that our products are capable of supporting loads as specified in our product literature for the life of the structure.

**IB** warrants **IB MAX-CORE** I-Joist, LVL, Rim, CLT and Glulam to be free of manufacturer defects in material and workmanship and capable of supporting loads as specified in our product literature for the life of the structure. In the unlikely event you receive a product that has a manufacturer defect, please contact us to have the problem remedied promptly and courteously.

## DESIGN PROPERTIES – 3000F<sub>b</sub> - 2.0E LVL

### SPECIFIED STRENGTHS AND MOE ALLOWABLE STRESS DESIGN (psi)

Bending <sup>(3)</sup>	F <sub>b</sub> = 3000	Longitudinal shear perpendicular to glue line - joist/beam	F <sub>v</sub> = 250
Modulus of elasticity	E <sub>apparent</sub> = 1.9E	Longitudinal shear parallel to glue line - plank	F <sub>v</sub> = 165
	E <sub>true</sub> = 2.0E	Specific Gravity – Lateral, Nails in Face <sup>(6)</sup>	SG = 0.46
Tension parallel to grain <sup>(5)</sup>	F <sub>t</sub> = 2000	Specific Gravity – Lateral, Nails in Edge <sup>(6)</sup>	SG = 0.42
Compression perpendicular to grain - joist/beam	F <sub>cp</sub> = 510	Specific Gravity – Lateral, Bolts in Face <sup>(7)</sup>	SG = 0.40
Compression perpendicular to grain - plank	F <sub>cp</sub> = 200	Specific Gravity – Withdrawal, Nails in Face and in Edge	SG = 0.40
Compression parallel to grain	F <sub>c</sub> = 2375		

#### NOTES:

1. Tabulated values are specified strengths for standard term duration of load. Specified strengths shall be permitted to be adjusted for other load durations as permitted by the code.
2. Tabulated specified strengths are in accordance with APA PR-L318 for U.S. Allowable Stress Design procedure.
3. Tabulated bending specified strength (F<sub>b</sub>) for IB LVL described are based on a reference depth of 12 inches. For other depths, the tabulated bending stress (F<sub>b</sub>) must be adjusted by a size factor K<sub>D</sub>.

#### WHERE:

$$K_D = (12/d)^{0.16}$$

4. When using E<sub>true</sub> (shear-free modulus of elasticity), the deflection of a simple span beam with a uniformly distributed load is calculated as follows:

$$\Delta = \frac{270 WL^4}{Ebd^3} + \frac{28.8 WL^2}{Ebd}$$

When using E<sub>apparent</sub> (apparent modulus of elasticity), omit second part of the equation.

#### WHERE:

- D** = total deflection (in)
- W** = applied uniform load (lb/ft)
- L** = design span (ft)
- E** = modulus of elasticity (psi)
- b** = member thickness (in)
- d** = member depth (in)

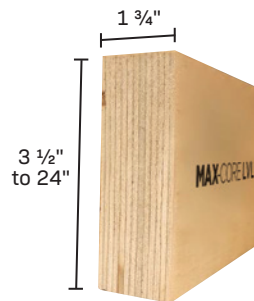
5. Tabulated tension parallel to grain specified strength (F<sub>t</sub>) is applicable to lengths up to 20 feet. For lengths greater than 20 feet, the tabulated tension parallel to grain specified strength (F<sub>t</sub>) must be adjusted by the length factor K<sub>L</sub>.

#### WHERE:

$$K_L = (20/L)^{0.146}$$

L = length of the member (ft)

6. Applicable for nailed connection with load parallel or perpendicular to grain.
7. Applicable for bolted connection with load perpendicular to grain.



**IB MAX-CORE LVL**  
(LAMINATED VENEER LUMBER)  
2.0E - 3000F<sub>b</sub>