

## Increased Structural Strength Where It Counts.



Ready to tackle your toughest production, performance and cost-control challenges.

If inefficient yields, inconsistent properties, and volatile pricing are limitations you want to resolve, let MJB introduce you to TimberStrand® Laminated Strand Lumber (LSL). Its exceptional strength, dimensional stability and size flexibility can successfully replace solid lumber and composites in many furniture applications.

LSL is a highly uniform, multi-layer product laminated together with an exterior-grade adhesive for superior structural and fastener-holding strength. It outperforms most alternatives when either face- or edge-loaded and is virtually free of warping, splitting and shrinking. This allows precision design optimization of materials, production and assembly to minimize waste, redundancy and rejects. And maximize consistency, fit and durability.

Domestically produced, TimberStrand also frees you from dramatic supply and cost fluctuations that limit profitability. Marketed exclusively to the furniture industry by MJB, we connect you to material solutions that support success. That's real strength where it counts. Learn more today.

### TimberStrand® LSL

Made by  Weyerhaeuser  
Marketed for furniture by MJB



## Superior Physical and Mechanical Properties Add Consistency, Precision and Value.

TimberStrand® offers a range of features for manufacturers of components such as rails, runners, posts, frames and cleats:

- Engineered-wood product designed for structural use
- Strong, reliable and consistent
- Free from warping and splitting to outperform conventional lumber
- Easily machined, drilled and sanded
- Available in greater lengths, widths and thicknesses
- High screw retention from any direction

### Available Dimensions

**LENGTH:** up to 16 ft.    **WIDTH:** up to 48 in.    **THICKNESS:** from 7/8 - 4 in.

### Physical Properties<sup>1</sup>

PROPERTY	VALUE	TEST METHOD
Target Density	41 pcf	ASTM D1037
Product Moisture Content	6-8%	ASTM D1037
Thickness Change <sup>2</sup>	3-4%	ASTM D1037
Width Change	<1%	ASTM D1037
Length Change	Negligible	ASTM D1037
Flame Spread Rating	140	ASTM E-84

### Mechanical Properties<sup>1</sup>

PROPERTY	VALUE	TEST METHOD
Internal Bond	80 psi	ASTM D1037
Avg. Ultimate Bending Stress (MOR) - Edge	5138 psi	ASTM D198-98
Avg. Ultimate Bending Stress (MOR) - Flat	5525 psi	ASTM D198-98
Avg. Bending Stiffness (MOE) - Edge	1,300,000 psi	ASTM D198-98
Avg. Bending Stiffness (MOE) - Flat	1,300,000 psi	ASTM D198-98
#12 Screw Withdrawal - Face <sup>3</sup>	820 lbs	NWWDA TM-10
#12 Screw Withdrawal - Edge <sup>3</sup>	800 lbs	NWWDA TM-10
Split Resistance - Perpendicular to Face	200 lbs	NWWDA TM-5
Split Resistance - Parallel to Face	1450 lbs	NWWDA TM-5
Hinge Loading - #12 Screw	650 lbs	WDMA TM-8
Edge Impact Resistance	PASS	WDMA TM-15

<sup>1</sup> Values indicated are not design values    <sup>2</sup> Thickness change from 50% to 90% relative humidity  
<sup>3</sup> Screw withdrawal values are based on testing a #12 x 2" wood screw with 11 threads per inch of screw length

### Environmental Benefits

TimberStrand is manufactured with no added Urea Formaldehyde and is considered a low-emitting composite wood product (<.10 ppm) based on criteria set by the U.S. Green Building Council. It is certified to the Sustainable Forestry Initiative® (SFI).



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972-401-0005    www.mjbbwood.com

### Strength Properties Tested And Compared

Lab testing and published industry values provide a framework for comparing the strength characteristics of LSL and common alternatives.



### Engineered-Wood Options

MATERIAL	MAX LOAD (lbs avg)	MOR (ksi avg)	MOE (ksi avg)
Poplar Plywood (7 ply)	289.2	5.62	0.774
Douglas Fir Plywood (7 ply)	203.7	3.98	0.803
LSL	458.65	8.67	1.319

### Lumber Options

MATERIAL <sup>1</sup>	MOR <sup>2</sup> (psi avg)	MOE (ksi avg)
Aspen	875	1.100
Douglas Fir-Larch (North)	1350	1.900
Ponderosa Pine	900	1.200
Red Oak	1150	1.400
Spruce-Pine-Fir (South)	1300	1.300
Yellow Poplar	1000	1.500
LSL <sup>2</sup>	1700	1.300

<sup>1</sup> Select structural grade lumber values from the American Forest and Paper Association's 2005 National Design Specification® (NDS) for Wood Construction  
<sup>2</sup> Bending values are for edge orientation (based on 12" depth)  
<sup>3</sup> TimberStrand LSL values taken from ICC ES ESR-1387