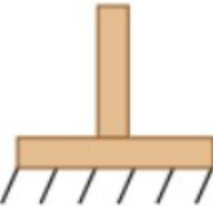
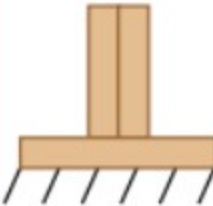
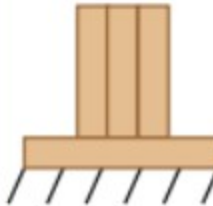
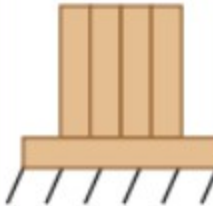
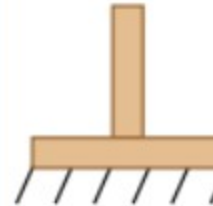
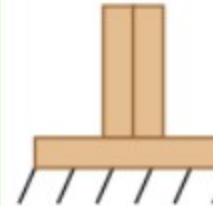
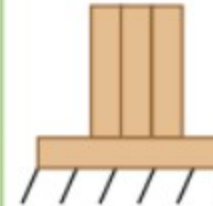
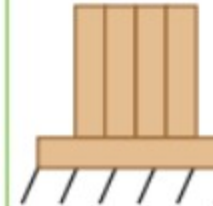


TABLEAU 9 • Comparaison en compression de flanc (application planche) de certains types de bois

Type de bois Lisses et sablières	Résistance prévue en compression de flanc, $f_{cp}$ (Mpa)	Résistance pondérée en compression de flanc des lisses et sablières (kN)							
		Dimension des lisses et sablières et des montants 38 x 140				Dimension des lisses et sablières et des montants 38 x 184			
SPF n° 2	5,30	30,43	55,62	69,17	86,47	40,00	73,10	90,91	113,64
SPF MSR 2100F <sub>b</sub> - 1.8E	6,50	37,32	68,21	84,84	106,05	49,05	89,65	111,50	139,37
TimberStrand® LSL 1.5E	9,38	39,92 ?	79,84	106,46	133,07	52,47	104,94	139,91	174,89
SolidStart® LSL 1.55E	9,69	41,24	82,48	109,98	137,47	54,20	108,40	144,54	180,67
		1 montant	2 montants	3 montants	4 montants	1 montant	2 montants	3 montants	4 montants
									

# TREATED SILL PLATES AND STUDS

Featuring StrandGuard® TimberStrand® LSL

- Treated with zinc borate, using a proprietary process, for protection against termites and fungal decay
- Accepted by ICC-ES and meets AWPAs treating standards for dry interior applications (Use Category 2)
- Treated throughout—no need to field treat after cutting or drilling
- Eliminates the need for corrosion-resistant fasteners
- Every piece is manufactured to be straight and true for fast installation and minimal waste
- Available in the following sizes:
  - 1.3E:** 1½" x 3½", 1½" x 5½"
  - 1.5E:** 1½" x 7¼"
- Limited 25-year product warranty



# TRUS JOIST® STRANDGUARD® TIMBERSTRAND® LSL

## Allowable Design Stresses (100% Load Duration)

		1.3E		1.5E	
		Beam Orientation	Plank Orientation	Beam Orientation	Plank Orientation
Modulus of elasticity	E	=	1.3 x 10 <sup>6</sup> psi	1.5 x 10 <sup>6</sup> psi	1.5 x 10 <sup>6</sup> psi
Adjusted modulus of elasticity <sup>(1)</sup>	E <sub>min</sub>	=	660,750 psi	762,400 psi	762,400 psi
Flexural stress	F <sub>b</sub>	=	1,700 psi <sup>(2)</sup>	2,250 psi <sup>(2)</sup>	2,325 psi
Compression perpendicular to grain <sup>(3)</sup>	F <sub>c⊥</sub>	=	710 psi	860 psi	750 psi
Compression parallel to grain	F <sub>c  </sub>	=	1,835 psi	2,105 psi	2,105 psi
Horizontal shear parallel to grain	F <sub>v</sub>	=	425 psi	505 psi	150 psi

(1) Reference modulus of elasticity for beam stability and column stability calculations, per NDS®.

(2) For 12" depth. For other depths, multiply by  $\left[\frac{12}{d}\right]^{0.092}$

(3) F<sub>c⊥</sub> must not be increased for duration of load.

4.62 MPa

5.17 MPa

## General Notes

- StrandGuard® TimberStrand® LSL is treated with zinc borate, an EPA-registered biocide, using a proprietary process for protection against termites and fungal decay.
- The StrandGuard® treatment process does not reduce the allowable design stresses for TimberStrand® LSL.
- For complete design and installation information regarding **wall framing** with TimberStrand® LSL, refer to the *Trus Joist® Wall Guide* for your region, TJ-9003 or TJ-9004.
- For complete design and installation information regarding TimberStrand® LSL **columns**, refer to the *Trus Joist® Beam, Header, and Column Specifier's Guide* for your region, TJ-9000 or TJ-9020.

## Connector Notes

### Bolted Connections

- For bolts installed perpendicular to face and loaded **parallel** to grain, use a specific gravity of 0.50.
- For bolts installed perpendicular to face and loaded **perpendicular** to grain, use a specific gravity of 0.58.

### Nailed Connections

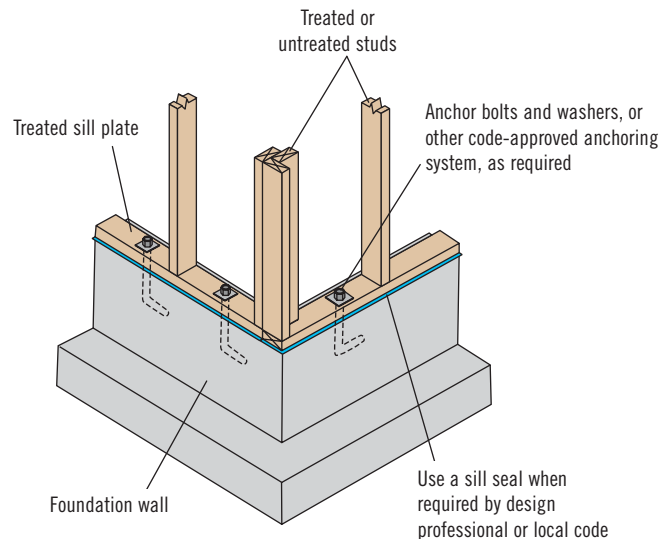
- For lateral nail capacity, use a specific gravity of 0.50.
- For withdrawal nail capacity, use a specific gravity of 0.42 in the edge and 0.50 in the face.

### Shear Walls

- When StrandGuard® TimberStrand® LSL sill plates are used in shear-wall construction, use the specific gravity of the studs when determining the allowable shear.
- Minimum edge nail spacing for 2x sill plate: one row at 4" on-center.

Code Evaluation: See ICC-ES ESR-1387

**WARNING:** This product can expose you to chemicals including wood dust which are known to the State of California to cause cancer, and methanol, which are known to the State of California to cause birth defects or other reproductive harm. Drilling, sawing, sanding or machining wood products can expose you to wood dust. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov) and [www.P65Warnings.ca.gov/wood](http://www.P65Warnings.ca.gov/wood).



StrandGuard® TimberStrand® LSL framing materials are intended for use in aboveground, protected applications such as sill plates and studs. The American Wood Protection Association (AWPA) standards classify such applications as Use Category 2.

StrandGuard® TimberStrand® LSL may be supported by masonry or concrete foundations, but must not come into contact with the ground, nor can it be substituted for studs in a treated-wood foundation.

For complete warranty information, see the limited warranty for StrandGuard® TimberStrand® LSL, TJ-1005.

## PRODUCT STORAGE



Protect product from sun and water

**CAUTION:**  
Wrap is slippery when wet or icy

Align stickers (2x3 or larger) directly over support blocks

Use support blocks (6x6 or larger) at 10' on-center to keep bundles out of mud and water

March 2019 • Reorder TJ-8100

This document supersedes all previous versions. If this is more than one year old, contact your dealer or Weyerhaeuser rep.

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# Extrait rapport CCMC

## 4.1 Design Requirements

Table 4.1.1 "TimberStrand® LSL" Specified Strengths (MPa) <sup>(1)(2)(7)</sup>

Grade	Modulus of Elasticity (MOE)	Axial		Joist or Beam <sup>(1)</sup>			Plank <sup>(1)</sup>		
		Tension Parallel to Grain $F_t^{(3)}$	Compression Parallel to Grain $F_c$	Flexure $F_b^{(4)(5)}$	Shear $F_v$	Compression Perpendicular to Grain $F_{c,perp}$	Flexure $F_b^{(6)}$	Shear $F_c$	Compression Perpendicular to Grain $F_{c,perp}^{(12)}$
→ 1.30E	8 965	13.70	20.21	21.65	5.39	8.92	24.20	1.95	7.92 <sup>(13)</sup>
1.35E	9 310	15.05	20.94	23.41	5.66	9.39	26.19	1.95	8.27
1.40E	9 655	16.40	21.68	25.18	5.93	9.87	28.18	1.95	8.62
1.45E	9 995	17.75	22.41	26.94	6.19	10.34	30.16	1.95	8.98
→ 1.50E	10 345	19.10	23.14	28.70	6.46	10.81	32.15	1.95	9.33
1.55E	10 685	20.40	23.88	29.60	6.73	11.28	33.30	1.95	9.69
1.60E	11 030	21.65	24.61	30.90	7.00	11.75	34.40	1.95	10.04 <sup>(14)</sup>
1.65E	11 375	22.45	25.35	32.03	7.27	12.23	35.68	1.95	10.39
1.70E	11 720	23.25 <sup>(8)</sup>	26.08	33.15	7.54	12.70	36.95	1.95	10.75
1.75E	12 065	24.29	26.82	34.66	7.81	13.17	38.70	1.95	11.10

(8) When "TimberStrand® LSL" 1.7E grade is used as truss chords and webs of engineered wood trusses, the specified axial tension strength is 26.15 MPa, which includes an adjustment for length effect. "TimberStrand® LSL" material must be marked as "Truss Chord Grade," and the engineered wood trusses must be manufactured under a recognized quality control program. The plate tooth-holding values for "TimberStrand® LSL" web and chord members are as listed in other Evaluation Reports.

(9) Specified strength conservatively capped at 27.55 MPa.

(10) Specified strength conservatively capped at 8.07 MPa.

(11) Specified strength conservatively capped at 13.64 MPa.

(12)  $F_{c,perp}$  shall not be increased for the duration of load.

→ (13) Specified strength is for product labeled "Rim Board". For all other 1.3E products, use 8.39 MPa.

(14) For thickness less than 64mm use 11.22 MPa.