



NYC Department of Buildings
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Report of Materials and Equipment Acceptance Division

Pursuant to Administrative Code Section 27-131, the following equipment or material has been found acceptable for use subject to the terms and conditions contained herein.

MEA 5-03-E Vol. 5

Manufacturer: Temlam Inc., 301 rue l'Harricana, P.O. Box 125, Amos, Quebec J9T 3A6 CANADA

Trade Name(s): Temlam

Product: Laminated veneer lumber (LVL)

Pertinent Code Section(s): 27-617 thru 27-624, Reference Standard RS 10

Prescribed Test(s): ASTM D-5456, D-198 and D-4761

Laboratory: Third party quality control certification by APA EWS, 7011 South 19th Street, Tacoma, WA 98466. Extrapolation of material property tables were signed and sealed by J. Mark Bartel, New York State Professional Engineer, License No. 078345

Test Report(s): Intertek (ITS-ETL Semko) Qualification Test Report for 1.8E LVL manufactured at Temlam Inc. – Amos Plant, Report No. 3082339-2006, original issue date, March 3, 2006, revised December 20, 2006.
APA Report T2007P-13, Qualification of 2.0E (true) Aspen Laminated Veneer lumber for Temlam Inc., Amos, Quebec, Canada dated April 27, 2007.
ICC Evaluation Service, Inc. Report No. ESR-1898, re-issued November 1, 2006.

Description: Laminated veneer lumber product manufactured with Aspen veneers and structural adhesive.

The following tables show the design properties of Temlam LVL

TABLE 1 - TEMLAM LVL ALLOWABLE DESIGN STRESSES (psi)

Property		Veneer Species	
		Aspen	
		LVL Grade	
		2850f-1.9E	3100f-2.0E
Flexural Stress (F_b)		2850	3100
Modulus of Elasticity $\times 10^6$ (E)		1.9	2.0
Tension parallel to grain (F_t)		2000	2000
Compression parallel to grain (F_c)		2900	2600
Compression perpendicular to grain (F_{cperp})	Joist/Beam	550	520
	Plank	450	200
Horizontal Shear (F_v)	Joist/Beam	250	290
	Plank	150	180

TABLE 1 NOTES:

- 1) The tabulated flexural stresses are based on loads of normal duration and a reference depth of 12 inches. For other depths, the tabulated flexural stresses shall be adjusted by a size adjustment factor of $(12/d)^{0.25}$ for 2850f-1.9E and $(12/d)^{0.15}$ for 3100f-2.0E Temlam LVL as shown below:

LVL Grade	Depth, d (inches):	3-1/2	9-1/2	14	18	20	24
2850f-1.9E	Multiply by:	1.35	1.06	0.96	0.90	0.88	0.84
3100f-2.0E	Multiply by:	1.20	1.04	0.98	0.94	0.93	0.90

The maximum size factor permitted for depth effect is 1.35 for 2850f-1.9E Temlam LVL and 1.20 for 3100f-2.0E Temlam LVL. The size factor derived in this footnote is cumulative with the duration-of-load factor and the repetitive-member adjustment factor.

- 2) See Figure 1 for illustration of orientation.
- 3) Stresses are permitted to be adjusted for duration of load in accordance with the applicable code.
- 4) Tabulated flexural stresses (F_b) shall be permitted to be increased by 4 percent when the member qualifies as a repetitive member as defined in ANSI/AFPA NDS.
- 5) The allowable stresses in Table 1 are based on covered dry conditions of use. Dry conditions of use are those environmental conditions represented by sawn lumber at which the moisture content is less than 16 percent.
- 6) For uniformly-loaded simple span beams, deflection is calculated as follows:

$$\Delta = 270wL^4/Ebd^3 + 28.8wL^2/Ebd$$

Where:

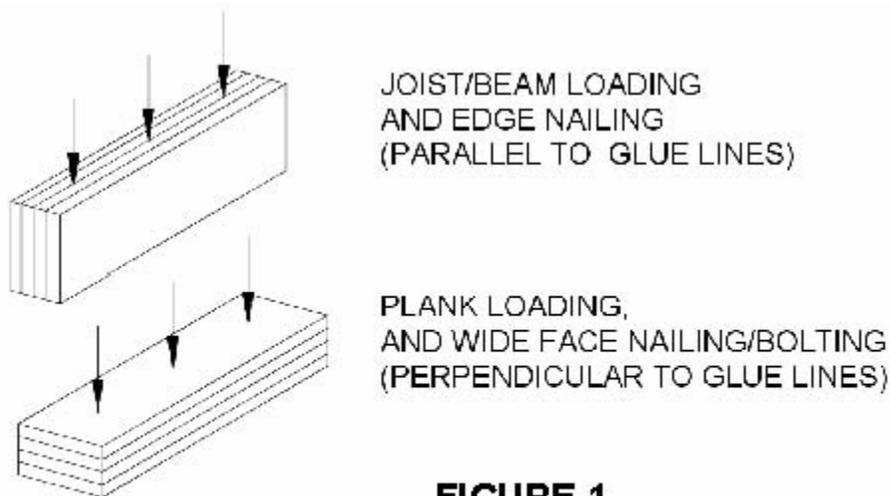
- Δ = Calculated deflection (inches)
- w = Applied uniform load (lb/ft)
- L = Design span (ft)
- E = True (shear-free) modulus of elasticity (psi)
- b = Beam thickness (inches)
- d = Beam depth (inches)

TABLE 2 - TEMLAM LVL EQUIVALENT SPECIFIC GRAVITY FOR FASTENERS

LVL Grade	Equivalent Specific Gravity				
	Nails				Bolts
	Withdrawal Load		Lateral Load		Lateral Load (1/2" & 3/4" Dia. Installed perpendicular to gluelines) ⁵
	Nails Installed into Edge	Nails Installed into Wide Face	Nails Installed into Edge ⁴	Nails Installed into Wide Face	Load applied Parallel or Perpendicular to Grain of Veneers
2850f-1.9E	0.46	0.46	0.43	0.43	0.43
3100f-2.0E	0.40	0.40	0.42	0.46	0.43

TABLE 2 NOTES:

- 1) Fastener values based on the above equivalent specific gravities are for loads of normal duration. The values may be adjusted for the appropriate duration of load factor in accordance with ANSI/AFPA NDS.
- 2) See Figure 1 for illustration of orientation.
- 3) Bolt spacing shall be in accordance with the applicable model code for solid-sawn lumber.
- 4) Applies to nails loaded parallel to gluelines. Nails installed at edge and loaded laterally perpendicular to gluelines are beyond the scope of this report.
- 5) Bolts installed parallel to gluelines are beyond the scope of this report.



**FIGURE 1
TEMLAM LVL ORIENTATION**

Terms and Conditions: The Temlam™ LVL lumber is accepted on condition that:

1. All uses, locations and installations shall comply with the applicable requirements of the New York City Building Code and on further condition that the design provisions and specifications as listed in the above laboratory reports shall apply.
2. Structures designed using Temlam™ LVL lumber shall conform to the manufacturer's specifications except that appropriate design load(s), deflection limitation(s) and other performance standards of the New York City Building Code shall apply.
3. Temlam™ LVL lumber shall be for interior use only and stamped "INTERIOR" and "MEA 5-03-E Vol. 5" on each beam.
4. Temlam™ LVL lumber, when stored out-of doors or exposed to wet weather conditions during construction, be inspected by used for swelling or warping, etc. and to be replaced if so damaged.
5. Beams less than 1½" thick shall be fire-stopped every 500 square feet in floor construction.
6. All shipments and deliveries of such material shall be provided with a label, suitably placed, certifying that the material shipped or delivered is equivalent to that tested and accepted for use, as provided in Section 27-131 of the New York City Building Code.

Final Acceptance November 5, 2007.

Examined By Donald [Signature]