

**PWC LVL Tension Lams**  
**Pacific Woodtech Corporation**

**PR-L215**

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Products: PWC LVL Tension Lams  
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1. Basis of the product report:
  - 2021, 2018, and 2015 International Building Code (IBC): Sections 104.11 Alternative materials and 2303.1.10 Structural composite lumber
  - 2012 IBC: Sections 104.11 Alternative Materials and 2303.1.9 Structural composite lumber
  - 2021, 2018, and 2015 International Residential Code (IRC): Sections R104.11 Alternative materials, and R502.1.5, R602.1.5, and R802.1.4 Structural composite lumber
  - 2012 IRC: Section R104.11 Alternative Materials, and R502.1.7, R602.1.4, and R802.1.6 Structural composite lumber
  - ANSI 117-2020 and ANSI 117-2015 recognized in the 2021 IBC and IRC, and 2018 IBC and IRC, respectively, and AITC 117-10 recognized in the 2015 IBC and 2012 IBC
  - ANSI A190.1-2017, ANSI A190.1-2012, and ANSI/AITC A190.1-2007 recognized in the 2021 and 2018 IBC and IRC, 2015 IBC and IRC, and 2012 IBC and IRC, respectively
  - ASTM D3737-18e1, D3737-12, and D3737-08 recognized in the 2021 IBC and IRC, 2018 and 2015 IBC and IRC, and 2012 IBC and IRC, respectively
  - ASTM D5456-21e1, Standard Specification for Evaluation of Structural Composite Lumber Products
  - ASTM D5456-18, ASTM D5456-14b, ASTM D5456-13, and ASTM D5456-09 recognized by the 2021 IBC and IRC, 2018 IBC and IRC, 2015 IBC and IRC, and 2012 IBC and IRC, respectively
  - APA Reports T99P-20, T2006P-58, T2011P-47A, T2011P-48, T2014P-52, T2015P-23, and T2019P-52, and other qualification data
2. Product description:

PWC LVL Tension Lams are made with veneer sheets of various species and grades in accordance with the in-plant manufacturing standard approved by APA. PWC LVL Tension Lams are available in thicknesses from 3/4 to 3-1/2 inches, various widths up to 48 inches and lengths up to 66-1/2 feet.
3. Design properties:

Table 1 lists the allowable stress design (ASD) reference design values and Table 2 lists the equivalent specific gravities for connection design for PWC LVL Tension Lams, which are intended for use in glulam combinations, such as 30F-E2M3/SP recognized in ICC-ES ESR-1940.
4. Limitations:
  - a) PWC LVL Tension Lams shall be designed in accordance with the code using the design properties specified in this report.
  - b) PWC LVL Tension Lams are limited to dry service conditions where the average moisture content of sawn lumber is less than 16 percent.
  - c) PWC LVL Tension Lams are produced at Pacific Woodtech Corporation, Burlington, Washington, under a quality assurance program audited by APA.
  - d) This report is subject to re-examination in one year.

5. Identification:

The PWC LVL Tension Lams described in this report are identified by a label bearing the manufacturer's name (Pacific Woodtech) and/or trademark, the APA assigned plant number (1047), the product grade (2.4E<sub>apparent</sub>-2825Ft or 2.5E<sub>true</sub>-2825Ft), the APA logo, the report number PR-L215, and a means of identifying the date of manufacture.

Table 1. ASD Design Values<sup>(a)</sup>

Property	Allowable Design Value (psi)
Tension parallel to grain, $F_t$ <sup>(b,c)</sup>	2,825
Compression parallel to grain, $F_{c  }$ <sup>(c)</sup>	3,125
Plank Longitudinal shear, $F_v$ <sup>(c)</sup>	150
Plank Compression perpendicular to grain, $F_{c\perp}$	650
Plank Apparent Modulus of Elasticity, $E_{apparent}$	2,400,000
Plank True Modulus of Elasticity, $E_{true}$	2,500,000

<sup>(a)</sup> Design values are applicable to dry conditions of use.

<sup>(b)</sup> Tension ( $F_t$ ) is based on a gauge length of 4 feet. For members longer than 4 feet, a length factor of  $(4/L)^{1/10}$  shall be used to adjust  $F_t$ , where L is the actual length in feet.

<sup>(c)</sup> Values may be adjusted for duration of load in accordance with the applicable code.

Table 2. Equivalent Specific Gravity for Connection Design

Connection Type	In Face	In Edge
Nails or Wood Screws – Withdrawal	0.50	0.50
Nails or Wood Screws – Lateral	0.50	0.50
Bolts or Lag Screws – Lateral	0.50	N. A.

Face: member faces showing the face of one veneer, typically the wide faces of the member

Edge: member faces showing the narrow edge of all veneers, typically the narrow faces of the member

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**APA – THE ENGINEERED WOOD ASSOCIATION**

**HEADQUARTERS**

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**PRODUCT SUPPORT HELP DESK**

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