

**STRUCTURAL COMPOSITE LUMBER
LAMINATED VENEER LUMBER (LVL)****PA-084**

Discipline: Structural

Issued 06-08-98
Revised: 09-12-05

This Product Acceptance (PA) report indicates DSA's acceptance of a manufacturer's product and conditions for its use in projects under DSA jurisdiction, which include State of California public elementary and secondary schools (grades K-12), community colleges, and state-owned or state-leased essential services buildings.

A DSA PA report is issued on the basis of conformance with referenced code provisions, standards, product listings, and acceptance criteria. A DSA PA report is not mandatory. Products without a DSA PA report may be accepted for a specific project by a DSA regional office.

Product Acceptance reports are intended for use by project design professionals and DSA staff. DSA approval of any project using the specified product is contingent on incorporation, into the plans and specifications, of all applicable conditions of use. This product may be substituted for products specified in the DSA approved plans and specifications, provided that the project architect and/or structural engineer obtains DSA approval for all substitutions.

Acceptance of the product described below is granted contingent on continued acceptable performance, and can be revised or withdrawn at any time by DSA. Changes to the product specification and/or manufacturing procedures without DSA concurrence may void this Product Acceptance Report.

| | | |
|-----------------------------|---|--|
| PRODUCT TYPE | Laminated Veneer Lumber (LVL) | |
| PRODUCT NAME | Gang-Lam™ LVL and TecLam LVL | |
| COMPANY NAME | Louisiana Pacific Corporation (LP) | |
| COMPANY CONTACT | Taylor Blake 2706 Highway 421 North Wilmington, NC 28401 | Tel: (910) 762-9878 Fax: (910) 763-8178 e-mail: taylor.blake@lpcorp.com |
| DSA CONTACT | Terence Fong 1102 Q Street, Suite 5100 Sacramento, CA 95814-3965 | Tel: (916) 324-7099 e-mail: terence.fong@dgs.ca.gov |
| REFERENCES | | |
| Code: | 2001 California Building Code (CBC) Title 24, Part 2, Sections 2304A, 2316A.2.2, 2318A.3, and 2315A.3.3 | |
| Standards: | ASTM D 5456 | |
| Listing: | ICC ES ESR-1254, June 1, 2004 | |
| Acceptance Criteria: | ICC ES AC-47, November 1, 2004 | |

Discussion:

Gang-Lam™ and TecLam LVL lumber are structural composite lumber products consisting of various types of wood veneers laminated with the grain parallel to the length of the member. The wood veneer properties and species, adhesive, manufacturing parameters, and finished product thickness, width, and length shall meet the requirements noted in the quality control manual that contains the manufacturing standard.

The wood species used for veneers may be Southern Yellow Pine, Douglas fir, Douglas Fir/Hemlock combination, or Lodgepole Pine. An exterior adhesive of phenol-formaldehyde complying with ASTM D2559 is used to bond veneers in the lay-up patterns specified in the manufacturer's quality control manual.

Acceptance is based on DSA's review of the referenced listing, manufacturer's test data and quality control program, for compliance with the Code and Standards listed above.

Continuous independent inspection for Gang-Lam™ and TecLam LVL is not required. All monthly quality control audits resulting from unannounced audits by a qualified independent inspection agency as defined in ASTM D-5456 shall be maintained by the manufacturer and made available to the Division of the State Architect upon request.

1. CONDITIONS OF USE: Gang-Lam™ and TecLam LVL are acceptable for use in structural applications such as joists, rafters, headers, flanges for I-joists, studs, and rim boards on projects under DSA jurisdiction, and subject to the conditions listed below:

- 1.1** Design, installation, detailing, and other conditions of use shall be as set forth in this report, and the Listing referenced above.
- 1.2** For rim board application, only the 1-1/4 inch thick Gang-Lam™ LVL may be used.
- 1.3** The following veneer types and LVL grades are accepted under PA-084:

| Veneer Type | Grade |
|-----------------|--|
| Gang-Lam™ S | 2250 F _b - 1.5E 2650 F _b - 1.9E 2950 F _b - 2.0E 3100 F _b - 2.0E 3400 F _b - 2.1E |
| Gang-Lam™ W | 1650 F _b - 1.3E 1750 F _b - 1.3E 2250 F _b - 1.5E 2650 F _b - 1.8E 2650 F _b - 1.9E 2850 F _b - 2.0E 2950 F _b - 2.0E |
| Gang-Lam™ L, LW | 2250 F _b - 1.8E 2650 F _b - 1.8E 2650 F _b - 1.9E |
| TecLam | 2250 F _b - 1.8E 2600 F _b - 1.8E 2850 F _b - 2.0E 3200 F _b - 2.2E |

- 1.4** Gang-Lam™ and TecLam LVL lumber shall be limited to interior, dry conditions of use and must be protected from weather during construction.
- 1.5** The allowable Gang-Lam™ and TecLam LVL lumber design stresses shall be as specified per Table 1 of the referenced listing above, ICC ESR-1254, except as modified below.
- 1.6** The repetitive member adjustment factor for F_b shall be 1.0 per CBC Section 2316.2.3.
- 1.7** Allowable load capacities for nailed and bolted connections shall be as specified in Table 2 of the referenced listing above.

1.8 Larger sections fabricated with secondary lamination may be used when loads are applied parallel to all glue faces/planes. Secondary Laminations must be manufactured in accordance with LP's quality assurance manual for face bonding. Approved secondary laminators for Gang-Lam™ and TecLam LVL lumber are Brisco Manufacturing LTD. and Western Structures.

2. Identification: Louisiana Pacific Gang-Lam™ and TecLam LVL shall bear identification stamps as required by Section 7.0 of the referenced listing and similar to the sample shown below:



2950 F_b - 2.0E GANG-LAM® W LVL
 Hines, OR Date Time ID#
 DSA PA-084 ICC ES 1254

APA EWS
 MILL 1068