

Gang-Lam[®] LVL 1.5E Door and Window Headers



Production Description

LP Gang-Lam[®] laminated veneer lumber (LVL) 1.5E door and window headers are made by combining exterior adhesives and ultrasonically graded veneers.

Basic Uses

Gang-Lam LVL 1.5E is the perfect alternative to solid sawn lumber for door and window headers.

Materials & Fabrication

- Engineered for strength, Gang-Lam LVL 1.5E can carry heavier loads and span greater distances.
- Dimensionally stable and more consistent than solid sawn lumber, Gang-Lam LVL 1.5E resists warping, twisting, bowing and crowning.
- Pound for pound, LVL beams and headers have more load-bearing capacity than dimensional lumber which allows for longer spans and more design flexibility.
- Match 2x4 framing with our 3-1/2" thickness. Also available in 1-1/2" and 1-3/4" thicknesses.

Technical Data

Code Compliance Reports

- Gang-Lam LVL 1.5E has evaluation reports from ICBO ER-5004, BOCA 97-53* SBCCI 9490C and other code agencies.
- This guide is valid only for Gang-Lam LVL beams supporting loads applied parallel to the glue lines ("edge" orientation).

Third Party Inspection

While the manufacturing process is subject to rigorous quality controls and checking, the entire process is also audited by PFS Corporation, an independent, third party inspection agency.

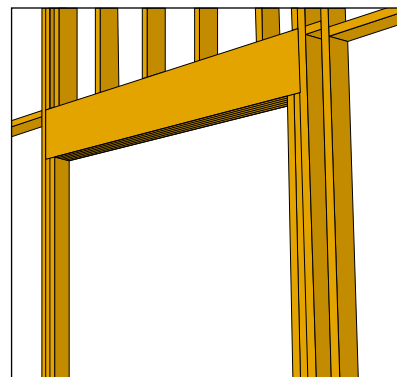
Environmental Impact

LP is committed to a healthy environment worldwide by taking a leadership role in our communities to be good neighbors. Our Corporate Policy on Protection of the Environment is a statement of our environmental goals. We believe sound business practices and efforts to enhance the environment go hand-in-hand.

- Meet or surpass the requirements of environmental laws and regulations.
- Maintain a responsible role in managing natural resources.
- Conserve non-renewable resources through efficient use and strategic planning.
- Fully account for environmental considerations in corporate planning and decision making.

Limited Lifetime Warranty

LP gives you a limited product warranty for the life of the structures you design using Gang-Lam LVL. With this warranty, you can feel confident that Gang-Lam LVL 1.5E door and window headers are free from defects in material and workmanship. For detailed limited warranty terms and limitations, contact the Customer Support number on the back.



Note: Material Safety Data Sheets are available. Please contact the Customer Support number listed on the back of this page.

* BOCA report does not apply to Gang-Lam L. An updated report is pending.



MAXIMUM UNIFORM FLOOR LOADS (PLF)

Span (ft)	3-1/2" x 4-3/8"					3-1/2" x 5-1/2"					3-1/2" x 7-1/8"					3-1/2" x 9-1/2"				
	Live Load		Total	Min. Bearing		Live Load		Total	Min. Bearing		Live Load		Total	Min. Bearing		Live Load		Total	Min. Bearing	
	L/480	L/360	Load	End	Int	L/480	L/360	Load	End	Int	L/480	L/360	Load	End	Int	L/480	L/360	Load	End	Int
3	1506		1920	1-1/2"	3-1/2"			2576	1-1/2"	3-3/4"			3690	2-1/4"	5-1/2"			5822	3-1/2"	8-1/2"
4	636	848	1166	1-1/2"	3-1/2"	1262	1684	1784	1-1/2"	3-1/2"			2478	2"	5"			3688	3"	7-1/4"
5	324	434	646	1-1/2"	3-1/2"	646	862	1148	1-1/2"	3-1/2"	1406		1864	2"	4-1/2"			2696	2-3/4"	6-1/2"
6	188	250	372	1-1/2"	3-1/2"	374	498	742	1-1/2"	3-1/2"	814	1084	1300	1-1/2"	4"	1928		2124	2-1/2"	6-1/4"
7	118	158	232	1-1/2"	3-1/2"	234	314	466	1-1/2"	3-1/2"	512	682	952	1-1/2"	3-1/2"	1214	1620	1644	2-1/2"	5-3/4"
8	78	106	154	1-1/2"	3-1/2"	156	210	310	1-1/2"	3-1/2"	342	456	678	1-1/2"	3-1/2"	814	1084	1256	2"	5"
9	-	-	-	-	-	110	146	216	1-1/2"	3-1/2"	240	320	474	1-1/2"	3-1/2"	570	762	990	2"	4-1/2"
10	-	-	-	-	-	80	106	156	1-1/2"	3-1/2"	174	234	344	1-1/2"	3-1/2"	416	554	800	1-3/4"	4"
11	-	-	-	-	-	60	80	116	1-1/2"	3-1/2"	132	176	256	1-1/2"	3-1/2"	312	416	616	1-1/2"	3-1/2"
12	-	-	-	-	-	-	-	-	-	-	100	134	196	1-1/2"	3-1/2"	240	320	472	1-1/2"	3-1/2"
13	-	-	-	-	-	-	-	-	-	-	80	106	152	1-1/2"	3-1/2"	188	252	368	1-1/2"	3-1/2"
14	-	-	-	-	-	-	-	-	-	-	64	84	120	1-1/2"	3-1/2"	150	202	294	1-1/2"	3-1/2"
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	122	164	236	1-1/2"	3-1/2"
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	134	192	1-1/2"	3-1/2"
17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	84	112	160	1-1/2"	3-1/2"
18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	94	132	1-1/2"	3-1/2"
19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60	80	112	1-1/2"	3-1/2"
20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Span (ft)	3-1/2" x 11-7/8"					3-1/2" x 14"					3-1/2" x 16"					3-1/2" x 18"				
	Live Load		Total	Min. Bearing		Live Load		Total	Min. Bearing		Live Load		Total	Min. Bearing		Live Load		Total	Min. Bearing	
	L/480	L/360	Load	End	Int	L/480	L/360	Load	End	Int	L/480	L/360	Load	End	Int	L/480	L/360	Load	End	Int
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	5216	4"	10"	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	3686	3-3/4"	9"	-	-	4740	4-3/4"	11-1/2"	-	-	-	-	-	-	-	-	-	-
6	-	-	2848	3-1/2"	8-1/4"	-	-	3588	4-1/4"	10-1/2"	-	-	-	-	-	-	-	-	-	-
7	-	-	2320	3-1/4"	8"	-	-	2886	4"	9-3/4"	-	-	3482	4-3/4"	11-3/4"	-	-	-	-	-
8	1588		1918	3"	7-1/2"	-	-	2414	3-3/4"	9-1/2"	-	-	2884	4-1/2"	11-1/4"	-	-	-	-	-
9	1116	1488	1512	2-3/4"	6-3/4"	1828		2056	3-3/4"	9"	-	-	2462	4-1/2"	10-3/4"	-	-	-	-	-
10	814	1084	1222	2-1/2"	6"	1332		1662	3-1/4"	8"	1990		2132	4-1/4"	10-1/2"	-	-	2500	5"	12"
11	610	814	1008	2-1/4"	5-1/2"	1002	1336	1372	3"	7-1/2"	1494		1760	4"	9-1/2"	2128		2192	4-3/4"	11-3/4"
12	470	628	844	2"	5"	770	1028	1150	2-3/4"	6-3/4"	1152		1476	3-1/2"	8-3/4"	1640		1838	4-1/2"	10-3/4"
13	370	494	718	2"	4-3/4"	606	808	978	2-1/2"	6-1/4"	906	1208	1256	3-1/4"	8"	1290		1564	4"	10"
14	296	394	580	1-3/4"	4"	486	648	840	2-1/2"	5-3/4"	724	966	1080	3"	7-1/2"	1032		1346	3-3/4"	9-1/4"
15	240	320	470	1-1/2"	3-1/2"	394	526	730	2-1/4"	5-1/2"	588	786	938	3"	7"	840	1120	1170	3-1/2"	8-1/2"
16	198	264	384	1-1/2"	3-1/2"	324	434	636	2"	5"	486	648	822	2-3/4"	6-1/2"	692	922	1026	3-1/4"	8"
17	164	220	318	1-1/2"	3-1/2"	270	362	528	2"	4-1/2"	404	540	726	2-1/2"	6-1/4"	576	768	906	3"	7-1/2"
18	138	186	266	1-1/2"	3-1/2"	228	304	442	1-3/4"	4"	340	454	646	2-1/2"	5-3/4"	486	648	806	3"	7-1/4"
19	118	158	224	1-1/2"	3-1/2"	194	258	374	1-1/2"	3-3/4"	290	386	564	2-1/4"	5-1/2"	412	550	722	2-3/4"	6-3/4"
20	100	134	190	1-1/2"	3-1/2"	166	222	318	1-1/2"	3-1/2"	248	330	480	2"	5"	354	472	650	2-3/4"	6-1/2"
21	86	116	162	1-1/2"	3-1/2"	144	192	274	1-1/2"	3-1/2"	214	286	412	2"	4-1/2"	306	408	588	2-1/2"	6-1/4"
22	76	100	140	1-1/2"	3-1/2"	124	166	236	1-1/2"	3-1/2"	186	248	356	1-3/4"	4"	266	354	514	2-1/2"	5-3/4"
23	66	88	120	1-1/2"	3-1/2"	108	146	204	1-1/2"	3-1/2"	162	218	310	1-1/2"	3-3/4"	232	310	446	2-1/4"	5-1/4"
24	-	-	-	-	-	96	128	178	1-1/2"	3-1/2"	144	192	272	1-1/2"	3-1/2"	204	272	392	2"	4-3/4"
25	-	-	-	-	-	84	112	156	1-1/2"	3-1/2"	126	168	238	1-1/2"	3-1/2"	180	240	344	2"	4-1/2"
26	-	-	-	-	-	74	100	136	1-1/2"	3-1/2"	112	150	210	1-1/2"	3-1/2"	160	214	304	1-3/4"	4"
27	-	-	-	-	-	66	90	120	1-1/2"	3-1/2"	100	134	186	1-1/2"	3-1/2"	144	192	270	1-1/2"	4"
28	-	-	-	-	-	60	80	106	1-1/2"	3-1/2"	90	120	164	1-1/2"	3-1/2"	128	172	240	1-1/2"	3-1/2"
29	-	-	-	-	-	-	-	-	-	-	80	108	146	1-1/2"	3-1/2"	116	154	214	1-1/2"	3-1/2"
30	-	-	-	-	-	-	-	-	-	-	72	98	130	1-1/2"	3-1/2"	104	140	190	1-1/2"	3-1/2"

Notes:

- Span is defined as center-to-center of bearings and is valid for simple span and equal, multiple span conditions.
- These loads assume full lateral bracing of the compression edge. Full support is considered to be a maximum unbraced length of 24".
- The designer must check the Total Load column AND the appropriate Live Load column, either the L/480 or L/360 deflection limit. Live Load values that are blank are governed by Total Load. Do not use a product where designated "*" without further analysis by a design professional.
- The Total Load column is limited to a deflection of L/240 under total load and does not include the effects of long term loading (creep).
- The Total Load column has been adjusted to account for the self-weight of the beam.
- Proper bearing must be provided at each support. The minimum bearing lengths, based on the allowable total load, are listed above. For beams supporting less than the allowable total load, the required bearing length can be determined from the Allowable Reaction table below.

ALLOWABLE REACTION (LBS)

BEARING LENGTH										
1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	4-1/2"	5"	5-1/2"	6"	6-1/2"
3920	5240	6560	7860	9180	10500	11800	13100	14400	15700	17000
7"	7-1/2"	8"	8-1/2"	9"	9-1/2"	10"	10-1/2"	11"	11-1/2"	12"
18300	19600	21000	22200	23600	24800	26200	27400	28800	30000	31400

Notes:

- Tabulated values are based on support with a minimum bearing strength of 750 psi. This table is suitable for beams bearing on steel or the end grain of studs.
- Ensure that the support is structurally adequate to carry the reaction. The compressive strength parallel to grain of studs may dictate more studs than the bearing length above indicates.
- For beams bearing on wood plates, the bearing length may increase based on the bearing strength (compression perpendicular to grain) of the species and grade used for the plate material.
- Verify local code requirements concerning minimum bearing.

For more information on the full line of LP Engineered Wood Products, including our warranty, or the nearest distributor, please contact 1.800.648.6893 or e-mail customer.support@lpcorp.com. Visit our web site at www.lpcorp.com.

LP is a trademark of Louisiana-Pacific Corporation. © 2001 Louisiana-Pacific Corporation. All rights reserved. Printed in USA. Specifications subject to change without notice. PP 10M

EW6020SH 2/01



ALLOWABLE STRESSES (PSI)

BENDING	MOE	COMPRESSION		SHEAR
F _b	(x10 ³)	F _c	F _{cp}	F _v
		(parallel to grain)	(perpendicular to grain)	
2250	1.5	2350	750	285

Notes:

- * F_b is for 12" depth (d).
- For depths greater than 12", adjust F_b by (12/d)^{1/7}. For depths less than 12", adjust F_b by (12/d)^{1/9}. For depths less than 5-1/2", adjust F_b by 1.09.
- The allowable stresses above bending (F_b), compression parallel-to-grain (F_c) and shear (F_v), are for standard duration. These may be adjusted according to code.
- The values above are valid for the following Gang-Lam LVL species:

Gang-Lam L: Lodgepole Pine
Gang-Lam W: Douglas Fir-Larch or Western Hemlock, separately or mixed

Fastener Values:

Refer to the appropriate evaluation report listed in the Technical Data for species specific information regarding nail and bolt connection values.

