

Rosboro



High Performance 2.1E IJC-Glulam

Rosboro
BIG BEAM®
3000E 2.1E



- 30F high-strength glulam. The ideal beam for modern residential and light commercial applications.
 - Dimensionally stable. No shrinking, swelling, twisting or warping.
 - I-Joist compatible depth: 9 $\frac{1}{2}$ ", 11 $\frac{7}{8}$ ", 14", 16" and 18".
 - Widths match standard 2x4, 2x6 and 2x8 wall framing.
- Zero camber insures a flat consistent finished floor.

Rosboro BigBeam[®]

Engineered for the Modern Builder

High Strength, Big Value

Rosboro BigBeam has been designed as the ideal engineered wood beam for I-joist floor systems and other conventional framing applications. This 3000Fb high-strength glulam is the ideal beam for modern residential and light commercial applications.

Cost Effective

Rosboro BigBeam is the most cost effective wood product on the market today. Since the 30F-BigBeam is now interchangeable with the overpriced competition, you now have a choice. Because the BigBeam is manufactured using glulam technology, it is competitively priced when compared to LVL and PSL.

Zero Camber and a Balanced Layup

The zero camber BigBeam insures a flat consistent finished floor. A balanced layup (there is no "top" edge to the beam) along with the zero camber design makes floor framing easier and faster.

Well Engineered

Rosboro BigBeam is manufactured to the APA EWS *Framing Appearance* standard. This product is intended for use in framing applications where appearance is not critical. Touch sanded or planed after gluing to assure proper width tolerances, BigBeams are individually wrapped and sealed to protect from moisture.



The Perfect Component for Modern Floor Systems

Lengths: 48 - 60 feet.

Widths: Widths of 3 1/2", 5 7/16" and 7" match standard wall framing.

Depths: 9 1/2", 11 7/8", 14", 16" and 18" are sized to match standard I-joist depths.

Design Values

F _b tension	3,000 psi
F _b compression	3,000 psi
F _v horizontal shear	300 psi*
MOE	2.1 x 10 ⁶ psi

* Shear values should be decreased by 10% when beam is subject to conditions that cause severe checking.

Code Recognized

- Rosboro Glulam is recognized under ICC-ES Report ESR-1940.
- Wet-use adhesives comply with ASTM D-2559.
- Inspected and certified by APA EWS in conformance with American National Standard ANSI A190.1-2007.
- LA City Fabricators Approved.

Rosboro BIG BEAM [®] <small>High Performance 2.1E LJC-Glutam</small>	Lay-up Combination	Flexural Stress F_b (psi)		Compression Perpendicular to Grain F_{c1} (psi)	Shear ¹ F_v (psi)	Modulus of Elasticity MOE (10^6 psi)
		Tension Zone	Compression Zone			
	30F-E2M3	3,000	3,000	650	300	2.1

Design Values

(1) F_b shall be adjusted by the volume effect factor using the following formula:

$$C_v = (5.125/b)^{1/10} \times (12/d)^{1/10} \times (21/L)^{1/10} \leq 1.0$$

where: b = beam width (in.), d = beam depth (in.), L = beam length (ft).

(2) For non-prismatic members, notched members, members subject to impact or cyclic loading, or shear design of bending members at connections (NDS-05 3.4.3.3), the design shear (F_v) shall be multiplied by a factor of 0.72.

Rosboro BIG BEAM [®] <small>High Performance 2.1E LJC-Glutam</small>	Beam Width (in.)	Beam Depth (in.)	Weight (lb/ft)	Resistive Shear (lbf)			Maximum Resistive Moment (ft-lbf)			EI (10^6 in. ² -lb.)
				100%	115%	125%	100%	115%	125%	
Design Properties $F_b = 3,000$ psi $F_v = 300$ psi $E = 2.1 \times 10^6$ psi	3 1/2	9 1/2	8.3	6,650	7,648	8,313	13,161	15,136	16,452	525
		11 7/8	10.4	8,313	9,559	10,391	20,565	23,649	25,706	1,026
		14	12.3	9,800	11,270	12,250	28,583	32,871	35,729	1,681
		16	14.0	11,200	12,880	14,000	37,333	42,933	46,667	2,509
		18	15.8	12,600	14,490	15,750	47,250	54,338	59,063	3,572
	5 7/16	9 1/2	12.9	10,331	11,881	12,914	20,447	23,514	25,559	816
		11 7/8	16.1	12,914	14,851	16,143	31,949	36,741	39,936	1,593
		14	19.0	15,225	17,509	19,031	44,406	51,067	55,508	2,611
		16	21.8	17,400	20,010	21,750	58,000	66,700	72,500	3,898
		18	24.5	19,575	22,511	24,469	73,406	84,417	91,758	5,550
	7	9 1/2	16.6	13,300	15,295	16,625	26,323	30,271	32,904	1,050
		11 7/8	20.8	16,625	19,119	20,781	41,130	47,299	51,412	2,051
		14	24.5	19,600	22,540	24,500	57,167	65,742	71,458	3,361
		16	28.0	22,400	25,760	28,000	74,667	85,867	93,333	5,081
		18	31.5	25,200	28,980	31,500	94,500	108,675	118,125	7,144

Notes:

(1) Beam weight is assumed to be 36 pcf.

(2) Maximum resistive moment shall be adjusted by the volume factor based on NDS-05.

(3) Maximum resistive shear shall be reduced by 10% if checking is a consideration.

Minimum Bearing Length (in.)

Beam Width (in.)	Reaction (lbf)																		
	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000	12,000	14,000	16,000	18,000	20,000	22,000	24,000	26,000	28,000	30,000	
3 1/2	1.50	1.76	2.20	2.64	3.08	3.52	3.96	4.40	5.27	6.15	7.03	7.91	8.79	9.67	10.55	11.43	12.31	13.19	
5 7/16	1.50	1.50	1.50	1.70	1.98	2.26	2.55	2.83	3.40	3.96	4.53	5.09	5.66	6.22	6.79	7.36	7.92	8.49	
7	1.50	1.50	1.50	1.50	1.54	1.76	1.98	2.20	2.64	3.08	3.52	3.96	4.40	4.84	5.27	5.71	6.15	6.59	



**Floor Beams
Allowable
Loads**
Simple Span
(LDF = 1.0)

Width (in.)	Depth (in.)	Load Condition	Span (feet)													
			8	10	12	14	16	18	20	22	24	26	28	30		
3 1/2	9 1/4	Live Load	L/360	1,403	718	416	262	175	123	90	67	52	-	-	-	
			L/480	1,052	539	312	196	132	92	67	51	-	-	-	-	
		Total Load	L/240	1,552	990	615	384	255	177	127	93	70	53	-	-	
	9 1/2	Live Load	L/360	1,520	778	450	284	190	133	97	73	56	-	-	-	
			L/480	1,140	583	338	213	142	100	73	55	-	-	-	-	
		Total Load	L/240	1,637	1,045	667	417	277	192	138	101	76	58	-	-	
	11 1/4	Live Load	L/360	2,297	1,292	748	471	315	222	161	121	93	74	59	-	
			L/480	1,893	969	561	353	237	166	121	91	70	55	-	-	
		Total Load	L/240	2,297	1,467	1,016	696	463	322	232	172	130	100	78	62	
	11 7/8	Live Load	L/360	2,560	1,520	879	554	371	261	190	143	110	86	69	56	
			L/480	2,226	1,140	660	415	278	195	142	107	82	65	52	-	
		Total Load	L/240	2,560	1,635	1,132	820	546	380	275	204	154	119	93	74	
	14	Live Load	L/360	3,447	2,274	1,441	907	608	427	311	234	180	142	113	92	
			L/480	3,447	1,867	1,081	681	456	320	233	175	135	106	85	69	
		Total Load	L/240	3,447	2,274	1,576	1,154	881	628	455	339	258	200	158	126	
	16	Live Load	L/360	4,186	2,973	2,060	1,354	907	637	465	349	269	211	169	138	
			L/480	4,186	2,788	1,613	1,016	681	478	348	262	202	159	127	103	
		Total Load	L/240	4,186	2,973	2,060	1,510	1,153	908	683	510	389	303	240	192	
	18	Live Load	L/360	5,024	3,584	2,609	1,913	1,292	907	662	497	383	301	241	196	
			L/480	5,024	3,584	2,297	1,446	969	681	496	373	287	226	181	147	
		Total Load	L/240	5,024	3,584	2,609	1,913	1,461	1,151	929	730	558	436	346	278	
	5 7/16	9 1/4	Live Load	L/360	2,179	1,116	646	407	272	191	139	105	81	63	51	-
				L/480	1,634	837	484	305	204	143	105	79	61	-	-	-
			Total Load	L/240	2,411	1,538	956	597	396	274	197	145	108	83	64	-
9 1/2		Live Load	L/360	2,361	1,209	699	440	295	207	151	114	87	69	55	-	
			L/480	1,770	906	525	330	221	155	113	85	66	52	-	-	
		Total Load	L/240	2,543	1,623	1,036	648	430	298	214	157	118	90	70	54	
11 1/4		Live Load	L/360	3,569	2,007	1,162	731	490	344	251	189	145	114	91	74	
			L/480	2,940	1,505	871	549	368	258	188	141	109	86	69	56	
		Total Load	L/240	3,569	2,279	1,578	1,082	720	501	361	267	203	156	122	96	
11 7/8		Live Load	L/360	3,977	2,361	1,366	860	576	405	295	222	171	134	108	87	
			L/480	3,458	1,770	1,025	645	432	304	221	166	128	101	81	66	
		Total Load	L/240	3,977	2,540	1,759	1,274	848	591	426	316	240	185	145	115	
14		Live Load	L/360	5,354	3,533	2,239	1,410	944	663	484	363	280	220	176	143	
			L/480	5,354	2,901	1,679	1,057	708	497	363	272	210	165	132	107	
		Total Load	L/240	5,354	3,533	2,448	1,793	1,369	976	706	526	401	311	245	196	
16		Live Load	L/360	6,503	4,618	3,200	2,104	1,410	990	722	542	418	329	263	214	
			L/480	6,503	4,331	2,506	1,578	1,057	743	541	407	313	246	197	160	
		Total Load	L/240	6,503	4,618	3,200	2,346	1,777	1,383	1,061	792	605	471	373	299	
18		Live Load	L/360	7,806	5,568	4,054	2,954	2,007	1,410	1,028	772	595	468	375	305	
			L/480	7,806	5,568	3,568	2,247	1,505	1,057	771	579	446	351	281	228	
		Total Load	L/240	7,806	5,568	4,054	2,954	2,226	1,733	1,384	1,128	868	677	537	432	
7		9 1/4	Live Load	L/360	2,805	1,436	831	523	351	246	180	135	104	82	65	53
				L/480	2,104	1,077	623	393	263	185	135	101	78	61	-	-
			Total Load	L/240	3,103	1,980	1,231	769	510	353	253	186	140	106	82	64
	9 1/2	Live Load	L/360	3,039	1,556	900	567	380	267	194	146	113	89	71	58	
			L/480	2,279	1,167	675	425	285	200	146	110	84	66	53	-	
		Total Load	L/240	3,274	2,089	1,334	834	553	384	275	203	152	116	90	70	
	11 1/4	Live Load	L/360	4,595	2,584	1,495	942	631	443	323	243	187	147	118	96	
			L/480	3,785	1,938	1,122	706	473	332	242	182	140	110	88	72	
		Total Load	L/240	4,595	2,933	2,031	1,393	927	645	465	344	261	201	157	124	
	11 7/8	Live Load	L/360	5,120	3,039	1,759	1,108	742	521	380	285	220	173	138	113	
			L/480	4,452	2,279	1,319	831	556	391	285	214	165	130	104	84	
		Total Load	L/240	5,120	3,270	2,264	1,640	1,092	761	549	407	309	239	187	148	
	14	Live Load	L/360	6,893	4,549	2,882	1,815	1,216	854	622	468	360	283	227	184	
			L/480	6,893	3,735	2,161	1,361	912	640	467	351	270	212	170	138	
		Total Load	L/240	6,893	4,549	3,151	2,295	1,728	1,256	909	677	516	400	316	252	
	16	Live Load	L/360	8,372	5,945	4,104	2,709	1,815	1,275	929	698	538	423	339	275	
			L/480	8,372	5,575	3,226	2,032	1,361	956	697	524	403	317	254	206	
		Total Load	L/240	8,372	5,945	4,104	2,961	2,230	1,735	1,366	1,019	779	606	480	385	
	18	Live Load	L/360	10,049	7,169	5,136	3,707	2,584	1,815	1,323	994	766	602	482	392	
			L/480	10,049	7,169	4,594	2,893	1,938	1,361	992	745	574	452	362	294	
		Total Load	L/240	10,049	7,169	5,136	3,707	2,793	2,174	1,736	1,416	1,117	872	692	557	

- Notes:
- (1) Applicable to dry-use service conditions.
 - (2) Tabulated live load is based on the deflection criterion of either span/360 or span/480.
 - (3) Tabulated total load is based on the deflection criterion of span/240.
 - (4) Tabulated total load is in addition to the beam weight (assumed 36 pcf).
 - (5) Selected beam size shall satisfy both live load and total load.



Roof Beams Allowable Loads Simple Span Snow (LDF = 1.15)

Width (in.)	Depth (in.)	Load Condition	Span (feet)													
			8	10	12	14	16	18	20	22	24	26	28	30		
3 1/2	9 1/4	Live Load	L/240	1,786	1,077	623	393	263	185	135	101	78	61	-	-	
			L/360	1,403	718	416	262	175	123	90	67	52	-	-	-	
		Total Load	L/180	1,786	1,140	789	515	343	238	171	127	96	74	57	-	
	9 1/2	Live Load	L/240	1,884	1,167	675	425	285	200	146	110	84	66	53	-	
			L/360	1,520	778	450	284	190	133	97	73	56	-	-	-	
		Total Load	L/180	1,884	1,203	833	559	372	258	186	138	104	80	63	-	
	11 1/4	Live Load	L/240	2,643	1,688	1,122	706	473	332	242	182	140	110	88	72	
			L/360	2,523	1,292	748	471	315	222	161	121	93	74	59	-	
		Total Load	L/180	2,643	1,688	1,169	857	621	433	313	233	177	137	108	86	
	11 7/8	Live Load	L/240	2,946	1,882	1,303	831	556	391	285	214	165	130	104	84	
			L/360	2,946	1,520	879	554	371	261	190	143	110	86	69	56	
		Total Load	L/180	2,946	1,882	1,303	955	729	511	369	275	209	163	128	102	
	14	Live Load	L/240	3,965	2,617	1,814	1,329	912	640	467	351	270	212	170	138	
			L/360	3,965	2,490	1,441	907	608	427	311	234	180	142	113	92	
		Total Load	L/180	3,965	2,617	1,814	1,329	1,015	799	610	455	348	271	215	172	
	16	Live Load	L/240	4,816	3,421	2,371	1,738	1,328	956	697	524	403	317	254	206	
			L/360	4,816	3,421	2,151	1,354	907	637	465	349	269	211	169	138	
		Total Load	L/180	4,816	3,421	2,371	1,738	1,328	1,046	845	684	524	409	325	261	
	18	Live Load	L/240	5,780	4,124	3,003	2,202	1,682	1,326	992	745	574	452	362	294	
			L/360	5,780	4,124	3,003	1,929	1,292	907	662	497	383	301	241	196	
		Total Load	L/180	5,780	4,124	3,003	2,202	1,682	1,326	1,071	876	727	586	466	376	
	5 7/16	9 1/4	Live Load	L/240	2,774	1,674	969	610	409	287	209	157	121	95	76	62
				L/360	2,179	1,116	646	407	272	191	139	105	81	63	51	-
			Total Load	L/180	2,774	1,771	1,226	801	532	370	266	197	149	114	89	70
9 1/2		Live Load	L/240	2,926	1,813	1,049	661	443	311	227	170	131	103	83	67	
			L/360	2,361	1,209	699	440	295	207	151	114	87	69	55	-	
		Total Load	L/180	2,926	1,868	1,293	868	577	402	289	214	162	125	97	77	
11 1/4		Live Load	L/240	4,107	2,623	1,742	1,097	735	516	376	283	218	171	137	112	
			L/360	3,920	2,007	1,162	731	490	344	251	189	145	114	91	74	
		Total Load	L/180	4,107	2,623	1,817	1,331	965	673	487	362	275	213	168	133	
11 7/8		Live Load	L/240	4,577	2,923	2,025	1,290	865	607	443	333	256	201	161	131	
			L/360	4,577	2,361	1,366	860	576	405	295	222	171	134	108	87	
		Total Load	L/180	4,577	2,923	2,025	1,483	1,132	793	574	427	325	252	199	159	
14		Live Load	L/240	6,161	4,066	2,818	2,065	1,417	995	725	545	420	330	264	215	
			L/360	6,161	3,868	2,239	1,410	944	663	484	363	280	220	176	143	
		Total Load	L/180	6,161	4,066	2,818	2,065	1,577	1,234	948	708	541	421	333	268	
16		Live Load	L/240	7,482	5,314	3,684	2,701	2,047	1,485	1,083	813	627	493	395	321	
			L/360	7,482	5,314	3,342	2,104	1,410	990	722	542	418	329	263	214	
		Total Load	L/180	7,482	5,314	3,684	2,701	2,047	1,594	1,273	1,038	814	635	504	406	
18		Live Load	L/240	8,980	6,407	4,665	3,401	2,563	1,996	1,542	1,158	892	702	562	457	
			L/360	8,980	6,407	4,665	2,996	2,007	1,410	1,028	772	595	468	375	305	
		Total Load	L/180	8,980	6,407	4,665	3,401	2,563	1,996	1,595	1,301	1,080	909	725	585	
7		9 1/4	Live Load	L/240	3,571	2,155	1,247	785	526	369	269	202	156	123	98	80
				L/360	2,805	1,436	831	523	351	246	180	135	104	82	65	53
			Total Load	L/180	3,571	2,280	1,578	1,031	685	476	343	254	192	147	115	90
	9 1/2	Live Load	L/240	3,767	2,334	1,351	851	570	400	292	219	169	133	106	86	
			L/360	3,039	1,556	900	567	380	267	194	146	113	89	71	58	
		Total Load	L/180	3,767	2,405	1,665	1,117	743	517	372	276	208	160	125	99	
	11 1/4	Live Load	L/240	5,287	3,376	2,243	1,413	946	665	484	364	280	221	177	144	
			L/360	5,047	2,584	1,495	942	631	443	323	243	187	147	118	96	
		Total Load	L/180	5,287	3,376	2,339	1,713	1,242	866	626	466	354	274	216	172	
	11 7/8	Live Load	L/240	5,892	3,763	2,607	1,661	1,113	782	570	428	330	259	208	169	
			L/360	5,892	3,039	1,759	1,108	742	521	380	285	220	173	138	113	
		Total Load	L/180	5,892	3,763	2,607	1,910	1,453	1,021	739	550	419	325	256	204	
	14	Live Load	L/240	7,931	5,235	3,628	2,643	1,824	1,281	934	702	540	425	340	277	
			L/360	7,931	4,980	2,882	1,815	1,216	854	622	468	360	283	227	184	
		Total Load	L/180	7,931	5,235	3,628	2,643	1,990	1,549	1,220	911	696	542	429	344	
	16	Live Load	L/240	9,632	6,841	4,723	3,409	2,569	1,912	1,394	1,047	807	634	508	413	
			L/360	9,632	6,841	4,302	2,709	1,815	1,275	929	698	538	423	339	275	
		Total Load	L/180	9,632	6,841	4,723	3,409	2,569	2,000	1,597	1,302	1,047	818	649	523	
	18	Live Load	L/240	11,561	8,249	5,912	4,268	3,217	2,505	1,985	1,491	1,148	903	723	588	
			L/360	11,561	8,249	5,912	3,857	2,584	1,815	1,323	994	766	602	482	392	
		Total Load	L/180	11,561	8,249	5,912	4,268	3,217	2,505	2,001	1,633	1,355	1,140	933	753	

Notes:

- (1) Applicable to dry-use service conditions.
- (2) Tabulated live load is based on the deflection criterion of either span/240 or span/360.
- (3) Tabulated total load is based on the deflection criterion of span/180.
- (4) Tabulated total load is in addition to the beam weight (assumed 36 pcf).
- (5) Selected beam size shall satisfy both live load and total load.



**Roof Beams
Allowable
Loads**
Simple Span
Non-Snow
(LDF = 1.25)

Width (in.)	Depth (in.)	Load Condition	Span (feet)													
			8	10	12	14	16	18	20	22	24	26	28	30		
3 1/2	9 1/4	Live Load	L/240	1,942	1,077	623	393	263	185	135	101	78	61	-	-	
			L/360	1,403	718	416	262	175	123	90	67	52	-	-	-	
		Total Load	L/180	1,942	1,240	823	515	343	238	171	127	96	74	57	-	
	9 1/2	Live Load	L/240	2,048	1,167	675	425	285	200	146	110	84	66	53	-	
			L/360	1,520	778	450	284	190	133	97	73	56	-	-	-	
		Total Load	L/180	2,048	1,308	892	559	372	258	186	138	104	80	63	-	
	11 1/4	Live Load	L/240	2,874	1,836	1,122	706	473	332	242	182	140	110	88	72	
			L/360	2,523	1,292	748	471	315	222	161	121	93	74	59	-	
		Total Load	L/180	2,874	1,836	1,272	932	621	433	313	233	177	137	108	86	
	11 7/8	Live Load	L/240	3,203	2,046	1,319	831	556	391	285	214	165	130	104	84	
			L/360	2,968	1,520	879	554	371	261	190	143	110	86	69	56	
		Total Load	L/180	3,203	2,046	1,418	1,039	732	511	369	275	209	163	128	102	
	14	Live Load	L/240	4,311	2,846	1,973	1,361	912	640	467	351	270	212	170	138	
			L/360	4,311	2,490	1,441	907	608	427	311	234	180	142	113	92	
		Total Load	L/180	4,311	2,846	1,973	1,446	1,104	842	610	455	348	271	215	172	
	16	Live Load	L/240	5,236	3,719	2,579	1,891	1,361	956	697	524	403	317	254	206	
			L/360	5,236	3,717	2,151	1,354	907	637	465	349	269	211	169	138	
		Total Load	L/180	5,236	3,719	2,579	1,891	1,444	1,138	915	684	524	409	325	261	
	18	Live Load	L/240	6,284	4,484	3,266	2,395	1,830	1,361	992	745	574	452	362	294	
			L/360	6,284	4,484	3,063	1,929	1,292	907	662	497	383	301	241	196	
		Total Load	L/180	6,284	4,484	3,266	2,395	1,830	1,443	1,166	954	750	586	466	376	
	5 7/16	9 1/4	Live Load	L/240	3,016	1,674	969	610	409	287	209	157	121	95	76	62
				L/360	2,179	1,116	646	407	272	191	139	105	81	63	51	-
			Total Load	L/180	3,016	1,926	1,279	801	532	370	266	197	149	114	89	70
9 1/2		Live Load	L/240	3,182	1,813	1,049	661	443	311	227	170	131	103	83	67	
			L/360	2,361	1,209	699	440	295	207	151	114	87	69	55	-	
		Total Load	L/180	3,182	2,032	1,386	868	577	402	289	214	162	125	97	77	
11 1/4		Live Load	L/240	4,465	2,852	1,742	1,097	735	516	376	283	218	171	137	112	
			L/360	3,920	2,007	1,162	731	490	344	251	189	145	114	91	74	
		Total Load	L/180	4,465	2,852	1,976	1,448	965	673	487	362	275	213	168	133	
11 7/8		Live Load	L/240	4,976	3,179	2,049	1,290	865	607	443	333	256	201	161	131	
			L/360	4,611	2,361	1,366	860	576	405	295	222	171	134	108	87	
		Total Load	L/180	4,976	3,179	2,203	1,614	1,137	793	574	427	325	252	199	159	
14		Live Load	L/240	6,698	4,422	3,065	2,115	1,417	995	725	545	420	330	264	215	
			L/360	6,698	3,868	2,239	1,410	944	663	484	363	280	220	176	143	
		Total Load	L/180	6,698	4,422	3,065	2,247	1,716	1,308	948	708	541	421	333	268	
16		Live Load	L/240	8,135	5,778	4,006	2,937	2,115	1,485	1,083	813	627	493	395	321	
			L/360	8,135	5,774	3,342	2,104	1,410	990	722	542	418	329	263	214	
		Total Load	L/180	8,135	5,778	4,006	2,937	2,227	1,734	1,386	1,063	814	635	504	406	
18		Live Load	L/240	9,763	6,967	5,073	3,699	2,788	2,115	1,542	1,158	892	702	562	457	
			L/360	9,763	6,967	4,758	2,996	2,007	1,410	1,028	772	595	468	375	305	
		Total Load	L/180	9,763	6,967	5,073	3,699	2,788	2,172	1,736	1,417	1,165	911	725	585	
7		9 1/4	Live Load	L/240	3,883	2,155	1,247	785	526	369	269	202	156	123	98	80
				L/360	2,805	1,436	831	523	351	246	180	135	104	82	65	53
			Total Load	L/180	3,883	2,479	1,646	1,031	685	476	343	254	192	147	115	90
	9 1/2	Live Load	L/240	4,096	2,334	1,351	851	570	400	292	219	169	133	106	86	
			L/360	3,039	1,556	900	567	380	267	194	146	113	89	71	58	
		Total Load	L/180	4,096	2,616	1,784	1,117	743	517	372	276	208	160	125	99	
	11 1/4	Live Load	L/240	5,748	3,672	2,243	1,413	946	665	484	364	280	221	177	144	
			L/360	5,047	2,584	1,495	942	631	443	323	243	187	147	118	96	
		Total Load	L/180	5,748	3,672	2,544	1,864	1,242	866	626	466	354	274	216	172	
	11 7/8	Live Load	L/240	6,406	4,092	2,638	1,661	1,113	782	570	428	330	259	208	169	
			L/360	5,936	3,039	1,759	1,108	742	521	380	285	220	173	138	113	
		Total Load	L/180	6,406	4,092	2,835	2,078	1,463	1,021	739	550	419	325	256	204	
	14	Live Load	L/240	8,623	5,692	3,945	2,722	1,824	1,281	934	702	540	425	340	277	
			L/360	8,623	4,980	2,882	1,815	1,216	854	622	468	360	283	227	184	
		Total Load	L/180	8,623	5,692	3,945	2,875	2,166	1,683	1,220	911	696	542	429	344	
	16	Live Load	L/240	10,472	7,439	5,137	3,708	2,722	1,912	1,394	1,047	807	634	508	413	
			L/360	10,472	7,433	4,302	2,709	1,815	1,275	929	698	538	423	339	275	
		Total Load	L/180	10,472	7,439	5,137	3,708	2,795	2,176	1,739	1,368	1,047	818	649	523	
	18	Live Load	L/240	12,569	8,969	6,428	4,642	3,499	2,722	1,985	1,491	1,148	903	723	588	
			L/360	12,569	8,969	6,125	3,857	2,584	1,815	1,323	994	766	602	482	392	
		Total Load	L/180	12,569	8,969	6,428	4,642	3,499	2,725	2,178	1,777	1,475	1,173	933	753	

- Notes:
- (1) Applicable to dry-use service conditions.
 - (2) Tabulated live load is based on the deflection criterion of either span/240 or span/360.
 - (3) Tabulated total load is based on the deflection criterion of span/180.
 - (4) Tabulated total load is in addition to the beam weight (assumed 36 pcf).
 - (5) Selected beam size shall satisfy both live load and total load.



High Performance 2.1E 1JG-Glulam

Floor Beams Specification Tables

Simple and Multiple Span.

	Floor Loading	Span (ft.)	Width of House (feet)						
			20	24	26	30	32	36	40
Simple Span Continuous Floor Joists Floor (100%) 	40 PSF Live 10 PSF Dead	8	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2
		10	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 11 7/8	3 1/2 x 11 7/8	3 1/2 x 11 7/8
	12	3 1/2 x 9 1/2	3 1/2 x 11 7/8	3 1/2 x 11 7/8	3 1/2 x 11 7/8	3 1/2 x 11 7/8	3 1/2 x 14	3 1/2 x 14	
	16	3 1/2 x 14	3 1/2 x 14	3 1/2 x 14	3 1/2 x 16	3 1/2 x 16	3 1/2 x 16	3 1/2 x 18	
	20	3 1/2 x 16	3 1/2 x 18	3 1/2 x 18	5 7/16 x 16	5 7/16 x 18	5 7/16 x 18	5 7/16 x 18	
Multiple Span Continuous Floor Joists Floor (100%) 	40 PSF Live 10 PSF Dead	8	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	
		10	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 11 7/8	3 1/2 x 11 7/8	
	12	3 1/2 x 9 1/2	3 1/2 x 11 7/8	3 1/2 x 11 7/8	3 1/2 x 11 7/8	3 1/2 x 11 7/8	3 1/2 x 14	3 1/2 x 14	
	16	3 1/2 x 14	3 1/2 x 14	3 1/2 x 14	3 1/2 x 16	3 1/2 x 16	3 1/2 x 16	3 1/2 x 18	
	20	3 1/2 x 16	3 1/2 x 18	3 1/2 x 18	5 7/16 x 16	5 7/16 x 16	5 7/16 x 16	5 7/16 x 18	
Simple Span Non-Continuous Floor Joists Floor (100%) 	40 PSF Live 10 PSF Dead	8	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	
		10	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 11 7/8	
	12	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 11 7/8	3 1/2 x 11 7/8	3 1/2 x 11 7/8	3 1/2 x 11 7/8	3 1/2 x 11 7/8	
	16	3 1/2 x 11 7/8	3 1/2 x 14	3 1/2 x 14	3 1/2 x 14	3 1/2 x 16	3 1/2 x 16	3 1/2 x 16	
	20	3 1/2 x 16	3 1/2 x 16	3 1/2 x 18	3 1/2 x 18	3 1/2 x 18	5 7/16 x 16	5 7/16 x 18	
Multiple Span Non-Continuous Floor Joists Floor (100%) 	40 PSF Live 10 PSF Dead	8	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	
		10	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	
	12	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 9 1/2	3 1/2 x 11 7/8	3 1/2 x 11 7/8	3 1/2 x 11 7/8	3 1/2 x 11 7/8	
	16	3 1/2 x 11 7/8	3 1/2 x 14	3 1/2 x 14	3 1/2 x 14	3 1/2 x 14	3 1/2 x 16	3 1/2 x 16	
	20	3 1/2 x 16	3 1/2 x 16	3 1/2 x 16	3 1/2 x 18	3 1/2 x 18	3 1/2 x 18	5 7/16 x 16	



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In addition to Treated Glulam, Rosboro manufactures a full line of laminated timber that fits any application.



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