

Design Values and Properties

Roshoro
GLULAM

Design Properties

$F_b = 2,400$ psi

$F_v = 265$ psi

$E = 1.8 \times 10^6$ psi

Width (in.)	Depth (in.)	Weight (lb/ft.)	Maximum Resistive Shear (lb)			Maximum Resistive Moment (ft.-lb)			EI (10 ⁶ in. ² - lb.)
			100%	115%	125%	100%	115%	125%	
3 1/8	6	4.6	3,313	3,809	4,141	3,750	4,313	4,688	101
	7 1/2	5.7	4,141	4,762	5,176	5,859	6,738	7,324	198
	9	6.8	4,969	5,714	6,211	8,438	9,703	10,547	342
	10 1/2	8.0	5,797	6,666	7,246	11,484	13,207	14,355	543
	12	9.1	6,625	7,619	8,281	15,000	17,250	18,750	810
	13 1/2	10.3	7,453	8,571	9,316	18,984	21,832	23,730	1,153
	15	11.4	8,281	9,523	10,352	23,438	26,953	29,297	1,582
	16 1/2	12.5	9,109	10,476	11,387	28,359	32,613	35,449	2,106
	18	13.7	9,938	11,428	12,422	33,750	38,813	42,188	2,734
	19 1/2	14.8	10,766	12,380	13,457	39,609	45,551	49,512	3,476
	21	16.0	11,594	13,333	14,492	45,938	52,828	57,422	4,341
	22 1/2	17.1	12,422	14,285	15,527	52,734	60,645	65,918	5,339
24	18.2	13,250	15,238	16,563	60,000	69,000	75,000	6,480	
Width (in.)	Depth (in.)	Weight (lb/ft.)	Maximum Resistive Shear (lb)			Maximum Resistive Moment (ft.-lb)			EI (10 ⁶ in. ² - lb.)
			100%	115%	125%	100%	115%	125%	
3 1/2	9	7.7	5,565	6,400	6,956	9,450	10,868	11,813	383
	10 1/2	8.9	6,493	7,466	8,116	12,863	14,792	16,078	608
	12	10.2	7,420	8,533	9,275	16,800	19,320	21,000	907
	13 1/2	11.5	8,348	9,600	10,434	21,263	24,452	26,578	1,292
	15	12.8	9,275	10,666	11,594	26,250	30,188	32,813	1,772
	16 1/2	14.0	10,203	11,733	12,753	31,763	36,527	39,703	2,358
Width (in.)	Depth (in.)	Weight (lb/ft.)	Maximum Resistive Shear (lb)			Maximum Resistive Moment (ft.-lb)			EI (10 ⁶ in. ² - lb.)
			100%	115%	125%	100%	115%	125%	
5 1/8	6	7.5	5,433	6,247	6,791	6,150	7,073	7,688	166
	7 1/2	9.3	6,791	7,809	8,488	9,609	11,051	12,012	324
	9	11.2	8,149	9,371	10,186	13,838	15,913	17,297	560
	10 1/2	13.1	9,507	10,933	11,884	18,834	21,660	23,543	890
	12	14.9	10,865	12,495	13,581	24,600	28,290	30,750	1,328
	13 1/2	16.8	12,223	14,057	15,279	31,134	35,805	38,918	1,891
	15	18.7	13,581	15,618	16,977	38,438	44,203	48,047	2,595
	16 1/2	20.6	14,939	17,180	18,674	46,509	53,486	58,137	3,453
	18	22.4	16,298	18,742	20,372	55,350	63,653	69,188	4,483
	19 1/2	24.3	17,656	20,304	22,070	64,959	74,703	81,199	5,700
	21	26.2	19,014	21,866	23,767	75,338	86,638	94,172	7,119
	22 1/2	28.0	20,372	23,428	25,465	86,484	99,457	108,105	8,757
	24	29.9	21,730	24,990	27,163	98,400	113,160	123,000	10,627
	25 1/2	31.8	23,088	26,551	28,860	111,084	127,747	138,855	12,747
	27	33.6	24,446	28,113	30,558	124,538	143,218	155,672	15,131
28 1/2	35.5	25,804	29,675	32,255	138,759	159,573	173,449	17,796	
30	37.4	27,163	31,237	33,953	153,750	176,813	192,188	20,756	

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Rosboro
GLULAM

Design Properties

$F_b = 2,400$ psi

$F_v = 265$ psi

$E = 1.8 \times 10^6$ psi

Width (in.)	Depth (in.)	Weight (lb/ft.)	Maximum Resistive Shear (lb)			Maximum Resistive Moment (ft.-lb)			EI (10 ⁶ in. ² - lb.)
			100%	115%	125%	100%	115%	125%	
6 ^{3/4}	9	14.8	10,733	12,342	13,416	18,225	20,959	22,781	738
	10 1/2	17.2	12,521	14,399	15,652	24,806	28,527	31,008	1,172
	12	19.7	14,310	16,457	17,888	32,400	37,260	40,500	1,750
	13 1/2	22.1	16,099	18,514	20,123	41,006	47,157	51,258	2,491
	15	24.6	17,888	20,571	22,359	50,625	58,219	63,281	3,417
	16 1/2	27.1	19,676	22,628	24,595	61,256	70,445	76,570	4,548
	18	29.5	21,465	24,685	26,831	72,900	83,835	91,125	5,905
	19 1/2	32.0	23,254	26,742	29,067	85,556	98,390	106,945	7,508
	21	34.5	25,043	28,799	31,303	99,225	114,109	124,031	9,377
	22 1/2	36.9	26,831	30,856	33,539	113,906	130,992	142,383	11,533
	24	39.4	28,620	32,913	35,775	129,600	149,040	162,000	13,997
	25 1/2	41.8	30,409	34,970	38,011	146,306	168,252	182,883	16,789
	27	44.3	32,198	37,027	40,247	164,025	188,629	205,031	19,929
	28 1/2	46.8	33,986	39,084	42,483	182,756	210,170	228,445	23,438
30	49.2	35,775	41,141	44,719	202,500	232,875	253,125	27,338	
Width (in.)	Depth (in.)	Weight (lb/ft.)	Maximum Resistive Shear (lb)			Maximum Resistive Moment (ft.-lb)			EI (10 ⁶ in. ² - lb.)
			100%	115%	125%	100%	115%	125%	
8 ^{3/4}	12	25.5	18,550	21,333	23,188	42,000	48,300	52,500	2,268
	13 1/2	28.7	20,869	23,999	26,086	53,156	61,130	66,445	3,229
	15	31.9	23,188	26,666	28,984	65,625	75,469	82,031	4,430
	16 1/2	35.1	25,506	29,332	31,883	79,406	91,317	99,258	5,896
	18	38.3	27,825	31,999	34,781	94,500	108,675	118,125	7,655
	19 1/2	41.5	30,144	34,665	37,680	110,906	127,542	138,633	9,732
	21	44.7	32,463	37,332	40,578	128,625	147,919	160,781	12,155
	22 1/2	47.9	34,781	39,998	43,477	147,656	169,805	184,570	14,950
	24	51.0	37,100	42,665	46,375	168,000	193,200	210,000	18,144
	25 1/2	54.2	39,419	45,332	49,273	189,656	218,105	237,070	21,763
	27	57.4	41,738	47,998	52,172	212,625	244,519	265,781	25,834
	28 1/2	60.6	44,056	50,665	55,070	236,906	272,442	296,133	30,383
30	63.8	46,375	53,331	57,969	262,500	301,875	328,125	35,438	

Notes for Stock Glulam Design Properties:

- (1) Beam weight is assumed to be 35 pcf.
- (2) Maximum resistive moment shall be adjusted by the volume factor based on NDS-05.