VERSA-LAM® Floor Load Tables

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
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3100Fb SP and 3080Fb DF (100% Load Duration)

KEY TO TABLE: Top figure = Allowable Total Load [plf] Middle figure = Allowable Live Load [plf]
Bottom figures = Minimum Required Bearing Length at End / Intermediate Supports [inches]

Design Span (ft)	Single Ply 1¾" Width - 3100 Fb SP				Double Ply 1¾" Width - 3100 Fb SP or 3½" Width - 3080 Fb DF							Triple Ply 1¾" Width - 3100 Fb SP or 5¼" Width - 3080 Fb DF						Quadruple Ply 1¾" Width - 3100 Fb SP or 7" Width - 3080 Fb DF				
	7¼"	9½"	11⅞"	14"	7¼"	9½"	11⅞"	14"	16"	18"	24"	9½"	11⅞"	14"	16"	18"	24"	11⅞"	14"	16"	18"	24"
6	776	1082	1450	1827	1525	2126	2849	3590	4387	5302	9096	3189	4274	5385	6581	7953	13645	5698	7180	8774	10605	18193
	762	-	-	-	1525	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1.6 / 3	2.2 / 3	2.9 / 3.7	3.7 / 4.6	1.5 / 3	2.2 / 3	2.9 / 3.6	3.6 / 4.5	4.4 / 5.5	5.4 / 6.7	9.2 / 11.5	2.2 / 3	2.9 / 3.6	3.6 / 4.5	4.4 / 5.5	5.4 / 6.7	9.2 / 11.5	2.9 / 3.6	3.6 / 4.5	4.4 / 5.5	5.4 / 6.7	9.2 / 11.5
8	479	759	996	1229	958	1492	1957	2415	2886	3402	5296	2238	2936	3622	4329	5103	7945	3915	4830	5772	6805	10593
	322	724	-	-	643	1447	-	-	-	-	-	2171	-	-	-	-	-	-	-	-	-	-
	1.5 / 3	2.1 / 3	2.7 / 3.4	3.3 / 4.2	1.5 / 3	2 / 3	2.6 / 3.3	3.3 / 4.1	3.9 / 4.9	4.6 / 5.7	7.2 / 8.9	2 / 3	2.6 / 3.3	3.3 / 4.1	3.9 / 4.9	4.6 / 5.7	7.2 / 8.9	2.6 / 3.3	3.3 / 4.1	3.9 / 4.9	4.6 / 5.7	7.2 / 8.9
10	243	551	758	925	487	1100	1490	1818	2148	2502	3732	1650	2234	2727	3223	3753	5598	2979	3635	4297	5005	7463
	165	370	724	-	329	741	1447	-	-	-	-	1111	2171	-	-	-	-	2894	-	-	-	-
	1.5 / 3	1.9 / 3	2.6 / 3.2	3.1 / 3.9	1.5 / 3	1.9 / 3	2.5 / 3.2	3.1 / 3.8	3.6 / 4.5	4.2 / 5.3	6.3 / 7.9	1.9 / 3	2.5 / 3.2	3.1 / 3.8	3.6 / 4.5	4.2 / 5.3	6.3 / 7.9	2.5 / 3.2	3.1 / 3.8	3.6 / 4.5	4.2 / 5.3	6.3 / 7.9
11	182	413	677	823	364	826	1330	1617	1904	2209	3250	1239	1995	2426	2856	3314	4875	2660	3234	3809	4419	6501
	124	278	544	-	247	557	1087	-	-	-	-	835	1631	-	-	-	-	2175	-	-	-	-
	1.5 / 3	1.5 / 3	2.5 / 3.2	3.1 / 3.8	1.5 / 3	1.5 / 3	2.5 / 3.1	3 / 3.8	3.5 / 4.4	4.1 / 5.1	6.1 / 7.6	1.5 / 3	2.5 / 3.1	3 / 3.8	3.5 / 4.4	4.1 / 5.1	6.1 / 7.6	2.5 / 3.1	3 / 3.8	3.5 / 4.4	4.1 / 5.1	6.1 / 7.6
12	139	317	585	741	279	634	1163	1456	1710	1977	2878	951	1744	2184	2565	2966	4317	2325	2913	3419	3955	5757
	95	214	419	686	191	429	837	1372	-	-	-	643	1256	2058	-	-	-	1675	2745	-	-	-
	1.5 / 3	1.5 / 3	2.4 / 3	3 / 3.8	1.5 / 3	1.5 / 3	2.4 / 3	3 / 3.7	3.5 / 4.3	4 / 5	5.9 / 7.3	1.5 / 3	2.4 / 3	3 / 3.7	3.5 / 4.3	4 / 5	5.9 / 7.3	2.4 / 3	3 / 3.7	3.5 / 4.3	4 / 5	5.9 / 7.3
13	109	248	488	674	218	497	976	1324	1551	1789	2582	745	1465	1986	2326	2684	3873	1953	2648	3102	3578	5164
	75	169	329	540	150	337	659	1079	-	-	-	506	988	1619	-	-	-	1317	2159	-	-	-
	1.5 / 3	1.5 / 3	2.2 / 3	3 / 3.7	1.5 / 3	1.5 / 3	2.2 / 3	2.9 / 3.7	3.4 / 4.3	3.9 / 4.9	5.7 / 7.1	1.5 / 3	2.2 / 3	2.9 / 3.7	3.4 / 4.3	3.9 / 4.9	5.7 / 7.1	2.2 / 3	2.9 / 3.7	3.4 / 4.3	3.9 / 4.9	5.7 / 7.1
14	86	198	390	586	173	396	779	1164	1419	1633	2341	594	1169	1746	2128	2450	3511	1559	2327	2838	3267	4682
	60	135	264	432	120	270	527	864	1290	-	-	405	791	1296	1935	-	-	1055	1728	2580	-	-
	1.5 / 3	1.5 / 3	1.9 / 3	2.8 / 3.5	1.5 / 3	1.5 / 3	1.9 / 3	2.8 / 3.5	3.4 / 4.2	3.9 / 4.9	5.6 / 7	1.5 / 3	1.9 / 3	2.8 / 3.5	3.4 / 4.2	3.9 / 4.9	5.6 / 7	1.9 / 3	2.8 / 3.5	3.4 / 4.2	3.9 / 4.9	5.6 / 7
15	70	160	316	509	139	320	632	1012	1304	1502	2141	480	947	1518	1956	2253	3211	1263	2024	2608	3005	4281
	49	110	214	351	98	220	429	703	1049	1493	-	329	643	1054	1573	2240	-	858	1405	2098	2987	-
	1.5 / 3	1.5 / 3	1.6 / 3	2.6 / 3.3	1.5 / 3	1.5 / 3	1.6 / 3	2.6 / 3.2	3.3 / 4.2	3.8 / 4.8	5.5 / 6.8	1.5 / 3	1.6 / 3	2.6 / 3.2	3.3 / 4.2	3.8 / 4.8	5.5 / 6.8	1.6 / 3	2.6 / 3.2	3.3 / 4.2	3.8 / 4.8	5.5 / 6.8
16	57	131	259	427	113	262	518	855	1144	1391	1971	393	777	1282	1717	2086	2957	1037	1709	2289	2781	3943
	40	90	177	289	80	181	353	579	864	1230	-	271	530	868	1296	1846	-	707	1158	1728	2461	-
	1.5 / 3	1.5 / 3	1.5 / 3	2.3 / 3	1.5 / 3	1.5 / 3	1.5 / 3	2.3 / 3	3.1 / 3.9	3.8 / 4.7	5.4 / 6.7	1.5 / 3	1.5 / 3	2.3 / 3	3.1 / 3.9	3.8 / 4.7	5.4 / 6.7	1.5 / 3	2.3 / 3	3.1 / 3.9	3.8 / 4.7	5.4 / 6.7
17	47	108	215	355	93	217	430	710	1012	1266	1827	325	645	1065	1518	1899	2740	860	1421	2024	2532	3654
	34	75	147	241	67	151	295	483	720	1026	-	226	442	724	1081	1539	-	589	965	1441	2052	-
	1.5 / 3	1.5 / 3	1.5 / 3	2.1 / 3	1.5 / 3	1.5 / 3	1.5 / 3	2.1 / 3	2.9 / 3.7	3.7 / 4.6	5.3 / 6.6	1.5 / 3	1.5 / 3	2.1 / 3	2.9 / 3.7	3.7 / 4.6	5.3 / 6.6	1.5 / 3	2.1 / 3	2.9 / 3.7	3.7 / 4.6	5.3 / 6.6
18	39	91	180	298	78	181	361	596	895	1127	1702	272	541	894	1342	1691	2553	721	1192	1789	2255	3404
	28	64	124	203	56	127	248	407	607	864	-	191	372	610	910	1296	-	496	813	1214	1728	-
	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 3	2.8 / 3.4	3.5 / 4.3	5.2 / 6.5	1.5 / 3	1.5 / 3	1.8 / 3	2.8 / 3.4	3.5 / 4.3	5.2 / 6.5	1.5 / 3	1.8 / 3	2.8 / 3.4	3.5 / 4.3	5.2 / 6.5
19	32	76	152	252	65	153	305	505	758	1010	1593	229	457	757	1138	1515	2389	610	1010	1517	2020	3185
	24	54	105	173	48	108	211	346	516	735	-	162	316	519	774	1102	-	422	691	1032	1470	-
	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.7 / 3	2.5 / 3.1	3.3 / 4.1	5.2 / 6.5	1.5 / 3	1.5 / 3	1.7 / 3	2.5 / 3.1	3.3 / 4.1	5.2 / 6.5	1.5 / 3	1.7 / 3	2.5 / 3.1	3.3 / 4.1	5.2 / 6.5
20	27	65	130	215	55	130	260	431	648	910	1496	194	390	646	972	1365	2245	519	862	1296	1820	2993
	21	46	90	148	41	93	181	296	442	630	1493	139	271	445	664	945	2240	362	593	885	1260	2987
	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	2.2 / 3	3.1 / 3.9	5.1 / 6.4	1.5 / 3	1.5 / 3	1.5 / 3	2.2 / 3	3.1 / 3.9	5.1 / 6.4	1.5 / 3	1.5 / 3	2.2 / 3	3.1 / 3.9	5.1 / 6.4
22	20	48	96	160	39	95	192	320	483	692	1296	143	288	480	724	1038	1944	384	641	966	1385	2592
	15	35	68	111	31	70	136	223	332	473	1122	104	204	334	499	710	1683	272	445	665	947	2244
	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 3	2.6 / 3.3	4.9 / 6.1	1.5 / 3	1.5 / 3	1.5 / 3	1.8 / 3	2.6 / 3.3	4.9 / 6.1	1.5 / 3	1.5 / 3	1.8 / 3	2.6 / 3.3	4.9 / 6.1
24	14	36	73	122	29	71	145	244	368	529	1085	107	218	365	553	794	1628	291	487	737	1058	2171
	12	27	52	86	24	54	105	172	256	365	864	80	157	257	384	547	1296	209	343	512	729	1728
	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	2.2 / 3	4.5 / 5.6	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	2.2 / 3	4.5 / 5.6	1.5 / 3	1.5 / 3	1.5 / 3	2.2 / 3	4.5 / 5.6
26	10	27	56	94	21	54	112	189	286	412	921	81	168	283	430	619	1382	224	377	573	825	1843
	9	21	41	67	19	42	82	135	201	287	680	63	124	202	302	430	1020	165	270	403	574	1359
	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 3	4.1 / 5.2	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 3	4.1 / 5.2	1.5 / 3	1.5 / 3	1.5 / 3	1.9 / 3	4.1 / 5.2
28	8	21	44	74	15	41	87	148	226	327	791	62	131	222	339	490	1187	174	297	452	653	1582
	8	17	33	54	15	34	66	108	161	230	544	51	99	162	242	344	816	132	216	322	459	1088
	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.6 / 3	3.8 / 4.8	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.6 / 3	3.8 / 4.8	1.5 / 3	1.5 / 3	1.5 / 3	1.6 / 3	3.8 / 4.8
30	6	16	34	59	11	32	69	118	181	262	640	48	103	177	271	393	960	137	236	362	525	1280
	-	14	27	44	-	27	54	88	131	187	442	41	80	132	197	280	664	107	176	262	373	885
	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	3.3 / 4.2	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	3.3 / 4.2	1.5 / 3	1.5 / 3	1.5 / 3	1.5 / 3	3.3 / 4.2

- Total Load values are limited by shear, moment or deflection equal to L/240. Total Load values are the capacity of the beam in addition to its own weight.
- Live Load values are limited by deflection equal to L/360.
- Both the Total Load and Live Load values must be checked. Where a Live Load value is not shown, the Total Load value will control.
- Table values apply to either simple or multiple span beams. Span is measured center to center of supports. Analyze multiple span beams with the BC CALC® software if the length of any span is less than half the length of an adjacent span.
- Table values assume that lateral support is provided at each support and continuously along the compression edge of the beam.
- Table values for Minimum Required Bearing Lengths are based on the allowable compression design value perpendicular to grain for the beam and the Total Load value shown. Other design considerations, such as a weaker support material, may warrant longer bearing lengths. Table values assume that support is provided across the full width of the beam.
- 1¾" members deeper than 14 inches are to be used as multiple-ply beams only.
- This table was designed to apply to a broad range of applications. It may be possible to exceed the limitations of this table by analyzing a specific application with the BC CALC® software.