

TWO SPAN ROOF LAY-UP WITH END JOINTS OVER SUPPORTS

Pounds per square foot includes live and dead loads and weight of decking Loads limited by deflection*

SIZE	SPAN FEET	DOUGLAS FIR/LARCH E = 1,800,000 psi F _b = 2,585 psi F _v = 165 psi		PONDEROSA PINE E = 1,150,000 psi F _b = 1,485 psi F _v = 150 psi		PONDEROSA PINE ACE E = 1,500,000 psi ** F _b = 1,720 psi F _v = 150 psi		INLAND RED CEDAR ACE E = 1,250,000 psi F _b = 1,485 psi F _v = 130 psi		ALASKAN YELLOW CEDAR ACE E = 1,450,000 psi F _b = 1,700 psi F _v = 165 psi		
		L/180 PSF	L/240 PSF	L/180 PSF	L/240 PSF	L/180 PSF	L/240 PSF	L/180 PSF	L/240 PSF	L/180 PSF	L/240 PSF	
2 x 6"	3	793	793	455	455	528	528	455	455	521	521	
	4	446	446	256	256	297	297	256	256	293	293	
	5	285	229	164	146	190	190	164	159	187	184	
	6	177	132	113	85	132	110	114	92	130	107	
	7	111	83	71	53	93	70	77	58	90	67	
	8	75	56	48	36	62	47	52	39	60	45	
	9	52	39	33	25	44	33	36	27	42	32	
	10	38	29	24	18	32	24	26	20	31	23	
	11	29	22	18	14	24	18	20	15	23	17	
	12	22	17	14	11	18	14	15	12	18	13	
	3 x 6"	4	1011	1011	581	581	673	673	581	581	678	678
		5	647	647	372	372	431	431	372	372	434	434
6		450	450	258	258	299	299	258	258	301	301	
7		330	289	190	185	220	270	190	190	221	221	
8		253	194	145	124	168	161	145	134	169	159	
9		181	136	115	87	133	113	115	94	134	111	
10		132	99	84	63	108	83	92	69	108	81	
11		99	74	63	48	83	62	69	52	81	61	
12		77	57	49	37	64	48	53	40	63	47	
4 x 6"		4	1718	1718	1008	1008	1168	1168	1008	1008	1171	1171
		5	1124	1124	645	645	748	748	645	645	749	749
		6	780	780	448	448	519	519	448	448	520	520
	7	573	573	329	329	382	382	329	329	382	382	
	8	439	439	252	252	292	292	252	252	293	293	
	9	347	310	199	198	231	231	199	199	231	231	
	10	281	226	161	144	187	187	161	157	187	184	
	11	226	170	133	108	155	141	133	118	155	139	
	12	174	131	111	84	130	109	112	91	130	107	
	5 x 6"	4	2182	2182	1624	1624	1495	1495	1495	1495	1894	1894
		5	1746	1746	1040	1040	1196	1196	1040	1040	1212	1212
		6	1257	1257	722	722	837	837	722	722	842	842
7		924	924	530	530	615	615	530	530	618	618	
8		707	707	406	406	471	471	406	406	473	473	
9		559	559	321	321	372	372	321	321	374	374	
10		453	453	260	260	301	301	260	260	303	303	
11		374	348	215	215	249	249	215	215	250	250	
12		314	268	180	171	209	209	180	180	210	210	

* = controlled by bending
= controlled by shear

** Douglas Fir/Larch centers and backs

Loads controlled by bending (b) or shear (v) are based on a Two-Month Duration of Load factor of 1.15. For Normal Duration of Loading or floor loads, values must be divided by 1.15. For floor loads based on deflection using L/360, use 1/2 of L/180 values.

THERMAL INSULATION VALUES

Laminated wood decking typically has an R-Value of approximately 1 per inch of net wood thickness. When using laminated roof decking in conjunction with a rigid insulation, roof assemblies of nearly any desired thermal performance are achievable. Consult your design professional to determine the roof assembly necessary to arrive at the desired thermal resistance.

Published rigid insulation R-values vary by manufacturer.

A typical roof assembly can include:

- Shingles or roof covering
- Roof paper
- Sheathing or nail base
- Vapor barrier
- Rigid insulation
- Laminated decking
- Roof framing members

Solid 2x6 Decking is available. See separate flyer for performance ratings.

TECHNICAL MEMO

Because of possible shrinkage, as decking reaches an equilibrium with the moisture levels of the surrounding environment, FILLER KING® strongly encourages that decking be manufactured with an edge vee. This will take the "eye" away from any separations that may occur between the decking faces. Decking manufactured without the edge vee, i.e. square edges or channel groove, has the appearance of planking for the "rustic" look of old. Separations between faces will be highly visible and will be difficult, if not impossible, to close. Filler King® will not be responsible for the edge appearance of the decking installed due to gaps or separations between faces.

ALLOWABLE UNIFORMLY DISTRIBUTED ROOF LOADS IN A SIMPLE OR RANDOM LAY-UP SYSTEM

Pounds per square foot includes live and dead loads and weight of decking Loads limited by deflection*

SPAN FEET	DOUGLAS FIR/LARCH E = 1,800,000 psi F _b = 2,585 psi F _v = 165 psi		PONDEROSA PINE E = 1,150,000 psi F _b = 1,485 psi F _v = 150 psi		PONDEROSA PINE FACE E = 1,500,000 psi ** F _b = 1,720 psi F _v = 150 psi		INLAND RED CEDAR FACE E = 1,250,000 psi F _b = 1,485 psi F _v = 130 psi		ALASKAN YELLOW CEDAR FACE E = 1,450,000 psi F _b = 1,700 psi F _v = 165 psi											
	SIMPLE SPAN	RANDOM LENGTH CONTINUOUS	SIMPLE SPAN	RANDOM LENGTH CONTINUOUS	SIMPLE SPAN	RANDOM LENGTH CONTINUOUS	SIMPLE SPAN	RANDOM LENGTH CONTINUOUS	SIMPLE SPAN	RANDOM LENGTH CONTINUOUS										
2	1783	1485	1139	1138	1024	949	854	854	1187	1187	867	867	1024	1024	854	854	1171	1171	976	976
3	587	440	660	660	374	281	379	379	489	367	440	440	407	305	379	379	473	355	434	434
4	248	186	371	315	158	119	213	201	206	155	247	247	172	129	213	213	199	150	244	253
5	127	95	215	161	81	61	137	103	106	79	158	134	88	66	137	112	102	77	156	130
6	73	55	124	93	47	35	79	60	61	46	103	78	51	38	86	65	59	44	100	75
7	46	35	78	59	29	22	50	38	38	29	65	49	32	24	54	41	37	28	63	47
8	31	23	52	39	20	15	33	25	26	19	44	33	22	16	36	27	25	19	42	32
9	22	17	37	28	14	11	24	17	18	14	31	23	15	12	26	19	18	13	30	22
10	16	12	27	20	10	7	17	13	13	10	12	17	11	8	19	14	13	10	22	16
4	858	643	844	844	547	410	484	484	536	536	561	561	581	446	484	484	678	527	565	565
5	439	329	539	539	281	210	316	316	366	274	359	359	305	228	316	316	360	270	362	362
6	254	191	375	323	162	122	216	206	212	159	249	249	176	133	216	216	208	156	251	251
7	160	120	271	203	102	76	158	130	133	100	183	169	111	83	158	141	131	98	184	166
8	107	80	181	136	68	52	116	86	89	67	140	113	74	56	121	94	88	66	141	112
9	75	56	127	95	48	36	81	61	63	47	106	80	52	39	88	66	62	46	104	78
10	55	41	93	70	35	26	60	45	46	34	77	58	38	28	65	49	45	34	76	57
11	41	31	69	52	26	20	44	33	34	26	58	44	28	22	48	36	34	25	57	43
12	32	24	54	41	20	16	34	26	26	20	45	34	22	17	37	28	26	20	44	33
13	25	19	42	32	16	12	27	20	21	16	35	26	17	13	29	22	20	15	35	26
14	20	15	34	26	13	9	22	17	17	12	28	21	14	10	24	18	16	12	28	21
6	579	434	651	651	370	277	379	379	482	362	519	519	402	301	379	379	473	354	434	434
7	364	273	479	462	233	174	278	278	304	228	382	382	253	189	278	278	298	223	319	319
8	244	183	366	310	155	117	213	198	203	153	292	258	169	127	213	213	199	150	244	244
9	171	128	289	218	109	82	168	139	143	107	231	181	119	89	168	151	140	105	193	178
10	125	94	212	159	80	60	136	101	104	78	176	132	87	65	136	110	102	77	156	130
11	94	71	159	119	60	45	101	76	78	59	132	99	65	49	110	83	77	58	129	97
12	72	54	122	92	46	34	78	59	60	45	102	77	50	37	85	64	59	44	100	75
13	57	43	97	73	37	28	62	47	47	36	80	60	40	30	67	51	46	35	79	59
14	46	35	78	59	29	22	50	38	38	28	64	48	32	24	54	41	37	28	63	47
15	37	28	63	47	24	17	40	30	31	23	52	39	26	19	44	33	30	23	51	38
16	31	23	52	39	20	15	33	25	25	19	43	32	22	16	36	27	25	19	42	32
17	25	19	42	32	16	12	27	20	21	16	36	27	17	13	29	22	21	16	35	26
18	21	16	36	27	14	10	23	17	18	13	30	23	15	11	25	19	18	13	30	22
8	501	376	589	589	320	239	345	345	417	313	471	471	348	260	345	345	410	308	395	395
9	352	264	474	454	224	168	272	272	293	220	372	372	244	183	272	272	288	216	312	312
10	256	192	378	366	164	122	221	208	214	160	301	271	178	133	221	221	210	158	253	253
11	193	146	312	245	123	93	182	156	161	120	249	204	134	101	182	170	158	118	209	200
12	148	111	251	188	95	71	153	120	124	93	209	157	103	77	153	130	122	91	175	154
13	117	88	198	149	75	56	126	95	97	73	165	123	81	61	131	103	96	72	149	121
14	93	70	157	118	60	45	100	75	78	58	132	99	65	49	109	82	77	57	129	97
15	76	57	129	97	49	37	83	62	63	47	107	80	53	40	90	67	62	47	105	79
16	63	47	107	80	40	30	68	52	52	39	88	66	44	33	74	56	51	38	87	65
17	52	39	88	66	33	25	56	42	43	33	74	55	36	27	61	46	43	32	72	54
18	44	33	74	56	28	21														