

Sloped Roof Deck -- Load Adjustment Factors¹

To calculate the allowable load for a sloped roof deck, apply the coefficient for the pitch to the load for a flat roof listed in the Allowable Load table below.

Slope	Slope
4:12 -- 1.05	9:12 -- 1.25
4 1/2:12 -- 1.07	9 1/2:12 -- 1.28
5:12 -- 1.08	10:12 -- 1.30
5 1/2:12 -- 1.10	10 1/2:12 -- 1.33
6:12 -- 1.12	11:12 -- 1.36
6 1/2:12 -- 1.14	11 1/2:12 -- 1.39
7:12 -- 1.16	12:12 -- 1.41
7 1/2:12 -- 1.18	12 1/2:12 -- 1.44
8:12 -- 1.20	14:12 -- 1.54
8 1/2:12 -- 1.23	16:12 -- 1.67

1. Estimated



Deck House, Inc.

Allowable Total Uniform Roof Load¹

Lock-Deck	Span	Douglas Fir, Larch ⁴ , Southern Pine E1.8 F _b =2640 ²				Idaho White Pine ⁵ , White Fir E1.5 F _b =1850 ²				Ponderosa Pine, Western Red Cedar Face E1.3 F _b =1590 ²				Western Red Cedar All Laminations E1.2 F _b =1590 ²			
		Simple		Continuous ³		Simple		Continuous ³		Simple		Continuous ³		Simple		Continuous ³	
		1/180	1/240	1/180	1/240	1/180	1/240	1/180	1/240	1/180	1/240	1/180	1/240	1/180	1/240	1/180	1/240
2"	4'	245	183	368(f)	309(f)	206	155	247(f)	247(f)	176	132	252(f)	223	162	122	274(f)	206
	5'	125	93	212	158	106	79	158	134	90	68	152	114	83	63	180	105
	6'	72	54	123	92	61	46	103	78	52	39	88	66	48	36	81	61
	7'	46	34	77	58	38	29	65	49	33	25	56	42	30	23	52	39
	8'	31	23	52	39	26	19	44	33	22	16	37	28	20	15	34	26
3"	9'	21	16	36	27	18	14	31	23	15	12	26	20	14	11	24	18
	8'	107	80	181	136	89	67	151	113	77	58	127(f)	98	71	54	121	91
	9'	75	56	127	96	63	47	106	80	54	41	92	69	50	38	85	64
	10'	55	41	93	70	46	34	77	58	40	30	67	50	37	27	62	46
	11'	41	31	70	52	34	26	58	44	30	22	50	38	27	21	47	35
4"	12'	32	24	54	40	26	20	45	34	23	17	39	29	21	16	36	27
	13'	25	19	42	32	21	16	35	26	18	14	31	23	17	12	28	21
	10'	125	94	212	159	104	78	168(f)	132	90	68	144(f)	115	83	63	141	106
	11'	94	70	159	119	78	59	132(f)	99	68	51	115	86	63	47	106	79
	12'	72	54	122	92	60	45	102	77	52	39	88	66	48	36	82	61
	13'	57	43	96	72	47	36	80	60	41	31	70	52	38	28	64	48
5"	14'	46	34	77	58	38	28	64	48	33	25	56	42	30	23	51	39
	15'	37	28	63	47	31	23	52	39	27	20	45	34	25	19	42	31
	16'	31	23	52	39	25	19	43	32	22	17	37	28	20	15	34	26
	15'	72	54	121	91	63	47	107	80	55	41	93	70	51	38	86	64
	16'	60	44	100	75	52	39	88	66	45	34	76	57	42	31	71	53
	17'	49	37	83	62	43	33	74	55	38	28	64	48	35	26	59	44
5"	18'	42	31	70	53	37	27	62	46	32	24	54	40	29	22	50	37
	19'	35	26	59	44	31	23	53	40	27	20	46	34	25	19	42	32
	20'	30	23	51	39	27	20	45	34	23	17	39	29	21	16	36	27

Footnotes:

1. Values followed by (f) are governed by bending stress. Allowable loads for floors where governed by deflection are half of those listed in the 1/180 column.
2. Bending stress relates to 2-month duration. It is not exceeded when the listed loads are applied based on recognized decking formulas.
3. Span/loads shown assume compliance to layout rules described elsewhere. Longer spans may require specific lengths differing from the standard shipment--consult your Disdero representative.
4. Nominal 5" Fir/Larch will have a MOE of 1.7 x 10⁶ psi unless special arrangements are made prior to manufacture.
5. Comparable values are obtained with Ponderosa Pine face and Douglas Fir/Larch centers and back.