

Data Base - Type B, F, N, J

Note:  
Fy = 40 ksi

ROOF DECK DATA BASE E																
ATT RIBUT E		TYP E B DECK (B, BI, BA, BIA)				TYP E F DECK			TYP E N DECK (NS, NI, NSA, NIA)				TYP E J DECK (J, JA)			
Note	Gage	22	20	18	16	22	20	18	22	20	18	16	20	19	18	16
	Thickness	.0295	.0358	.0474	.0598	.0295	.0358	.0474	.0295	.0358	.0474	.0598	.0358	.0418	.0474	.0598
	Weight, psf	1.6	1.9	2.6	3.3	1.6	2.0	2.6	2.0	2.4	3.2	4.1	2.8	3.3	3.8	4.8
1	I <sub>p</sub> , in. <sup>4</sup>	0.16	0.20	0.29	0.38	0.13	0.16	0.24	0.61	0.79	1.14	1.56	2.28	2.79	3.31	4.42
1	I <sub>n</sub> , in. <sup>4</sup>	0.18	0.23	0.30	0.38	0.15	0.18	0.24	0.82	1.02	1.35	1.70	2.73	3.20	3.63	4.57
1	S <sub>p</sub> , in. <sup>3</sup>	0.19	0.23	0.32	0.41	0.13	0.16	0.22	0.36	0.47	0.65	0.85	0.88	1.10	1.27	1.64
1	S <sub>n</sub> , in. <sup>3</sup>	0.19	0.24	0.32	0.41	0.14	0.17	0.23	0.40	0.51	0.70	0.90	0.97	1.17	1.35	1.71
2	Ext.R, lbs.	710	1010	1680	2560	710	1010	1680	510	730	1230	1900	460	620	780	1210
3	Ext.R, lbs.	820	1160	1920	2910	820	1160	1910	590	840	1400	2150	530	710	890	1380
4	Int.R, lbs.	1130	1640	2780	4300	1340	1900	3170	1010	1450	2430	3720	970	1290	1620	2480
5	Int.R, lbs.	1130	1640	2780	4300	1340	1910	3180	1090	1560	2600	3980	1040	1380	1740	2650
6	V, lbs.	1860	2250	2960	3700	2250	2730	3590	2430	3580	5620	7060	2000	3190	4230	6730
7	Max.1 span	5'9"	6'5"	7'9"	8'10"	5'2"	5'9"	7'0"	11'2"	12'9"	15'3"	17'11"	19'6"	20'8"	21'7"	23'2"
8	Max.2 span	6'9"	7'6"	9'1"	10'5"	6'1"	6'9"	8'3"	13'2"	15'0"	18'0"	20'8"	23'0"	24'3"	25'3"	27'2"
9	Max. Cant.	1'8"	1'10"	2'2"	2'8"	1'6"	1'8"	1'11"	3'4"	3'8"	4'4"	4'10"	5'9"	6'2"	6'6"	7'2"
10	FM span	6'0"	6'6"	7'5"	9'6"	4'11"	5'5"	6'3"	10'10"	12'3"	14'7"	16'6"				
10	FM Acoustic span	5'11"	6'6"	7'5"	9'3"				10'7"	11'11"	14'3"	16'1"				



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Note	Gage	22	20	18	16	22	20	18	22	20	18	16	20	19	18	16
	Thickness	.0295	.0358	.0474	.0598	.0295	.0358	.0474	.0295	.0358	.0474	.0598	.0358	.0418	.0474	.0598
	Weight, psf	1.6	1.9	2.6	3.3	1.6	2.0	2.6	2.0	2.4	3.2	4.1	2.8	3.3	3.8	4.8
1	I <sub>p</sub> , in. <sup>4</sup>	0.16	0.20	0.29	0.38	0.13	0.16	0.24	0.61	0.79	1.14	1.56	2.28	2.79	3.31	4.42
1	I <sub>n</sub> , in. <sup>4</sup>	0.18	0.23	0.30	0.38	0.15	0.18	0.24	0.82	1.02	1.35	1.70	2.73	3.20	3.63	4.57
1	S <sub>p</sub> , in. <sup>3</sup>	0.19	0.23	0.32	0.41	0.13	0.16	0.22	0.36	0.47	0.65	0.85	0.88	1.10	1.27	1.64
1	S <sub>n</sub> , in. <sup>3</sup>	0.19	0.24	0.32	0.41	0.14	0.17	0.23	0.40	0.51	0.70	0.90	0.97	1.17	1.35	1.71
2	Ext.R, lbs.	1080	1540	2570	3920	1090	1550	2570	780	1120	1890	2900	700	950	1200	1860
3	Ext.R, lbs.	1250	1770	2930	4450	1250	1770	2930	900	1290	2150	3280	810	1080	1370	2100
4	Int.R, lbs.	1690	2440	4140	6390	1990	2830	4720	1510	2160	3610	5530	1440	1910	2410	3700
5	Int.R, lbs.	1690	2440	4140	6390	2000	2850	4730	1620	2320	3870	5910	1550	2050	2580	3950
6	V, lbs.	2830	3420	4500	5620	3430	4140	5450	3700	5450	8540	10730	3040	4840	6430	10230
7	Max.1 span	5'9"	6'5"	7'9"	8'10"	5'2"	5'9"	7'0"	11'2"	12'9"	15'3"	17'11"	19'6"	20'8"	21'7"	23'2"
8	Max.2 span	6'9"	7'6"	9'1"	10'5"	6'1"	6'9"	8'3"	13'2"	15'0"	18'0"	20'8"	23'0"	24'3"	25'3"	27'2"
9	Max. Cant.	1'8"	1'10"	2'2"	2'8"	1'6"	1'8"	1'11"	3'4"	3'8"	4'4"	4'10"	5'9"	6'2"	6'6"	7'2"
10	FM span	6'0"	6'6"	7'5"	9'6"	4'11"	5'5"	6'3"	10'10"	12'3"	14'7"	16'6"				
10	FM Acoustic span	5'11"	6'6"	7'5"	9'3"				10'7"	11'11"	14'3"	16'1"				

ROOF DECK DATABASE NOTES:

- I<sub>p</sub>, I<sub>n</sub>, S<sub>p</sub> and S<sub>n</sub> are the section properties per foot of width. These values were calculated using the AISI Specifications. The subscripts denote positive or negative bending.
- Allowable end reaction per foot of deck width with 2" bearing for ASD and the factored nominal reaction for LRFD.
- Allowable end reaction per foot of deck width with 3" bearing for ASD and the factored nominal reaction for LRFD.
- Allowable interior reaction per foot of deck width with 4" bearing for ASD and the factored nominal reaction for LRFD.
- Allowable interior reaction per foot of deck width with 5" bearing for ASD and the factored nominal reaction for LRFD.
- Allowable vertical shear per foot of width and the factored nominal shear for LRFD. Do not confuse this with horizontal diaphragm shear strength. Table values of 2, 3, 4, 5 and 6 have been multiplied by the appropriate factor for the LRFD tables.
- Maximum recommended single span for roofs.
- Maximum recommended multi span for roofs.
- Maximum recommended cantilever span based on SDI criteria. Values are sensitive to adjacent spans as they are controlled by deflection. For this table, adjacent spans are assumed to be at least 2 times greater than the cantilever span. Call if you need a more precise calculation.
- Maximum spans for Factory Mutual Class 1 construction. Refer to the FM Approval Guide and FM 1-29 for fastening requirements and span restrictions at perimeter.

GENERAL NOTES:

- B is generally known as "wide rib" deck; F is "intermediate rib", the 3" N is "deep rib" and the 4 1/2" J is one of the "deep long span" decks.
- The deck type B means flat side lap; BI is "interlocking" side lap - BI is only available on special order in 16 gage; BA and BIA means the decks are acoustical. F deck is only available with the flat side lap. F is only available on special order in 16 gage. NS is flat side lap and NI is interlocking. J deck is only available with interlocking side laps. NA, NIA and JA are acoustical decks. Better side lap connections are obtained by screwing or welding through the flat side laps and this is the recommended type. Side lap screws are not possible for J Deck. Both sides of interlocking side lap must be fastened at supports.
- Information not provided on this chart may be obtained from Canam Engineering offices.
- 21 gage and 19 gage are available on special order for all 1 1/2" and 3" roof decks.

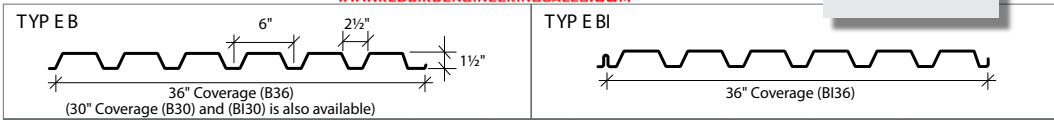
DATA BASE E





Type B, BI, BA, BIA Wide Rib Deck

Note:  
Fy = 40 ksi



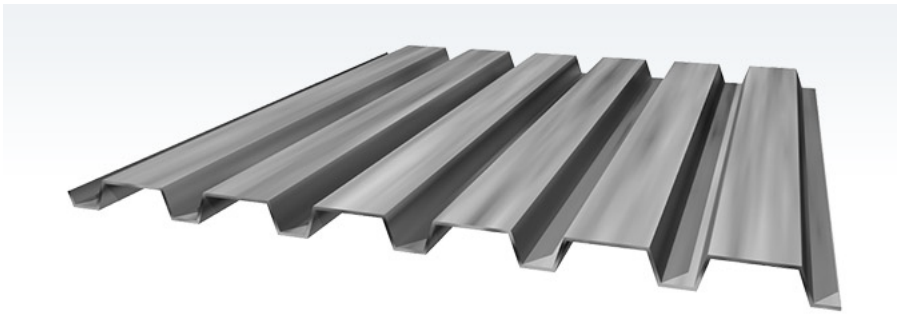
(Uniform Total Load, psf/Load Producing L/240 or 1", psf)

Span Condition	Gage	Span (ft. - in.) C. to C. of Support											
		5'0"	5'6"	6'0"	6'6"	7'0"	7'6"	8'0"	8'6"	9'0"	9'6"	10'0"	
Single	22	122/84	100/63	84/49									
	20	147/105	122/79	102/61	87/48								
	18	205/152	169/114	142/88	121/69	104/56	91/45	80/37					
	16	262/200	217/150	182/116	155/91	134/73	117/59	103/49	91/41	81/34			
Double	22	119/202	99/152	83/117	71/92	61/74							
	20	150/253	125/190	105/146	90/115	77/92	68/75						
	18	200/367	166/276	140/212	120/167	103/134	90/109	79/90	70/75	63/63	56/53		
	16	256/481	213/361	179/278	153/219	132/175	115/142	102/117	90/98	80/82	72/70	65/60	
Triple	22	148/158	123/119	103/92	88/72	76/58							
	20	186/198	155/149	130/115	111/90	96/72	84/59						
	18	248/287	206/216	174/166	149/131	128/105	112/85	99/70	88/58	78/49	70/42		
	16	317/376	263/283	222/218	190/171	164/137	144/111	126/92	112/77	100/64	90/55	81/47	

(Uniform Total Load, psf/Load Producing L/240 or 1", psf)

Span Condition	Gage	Span (ft. - in.) C. to C. of Support											
		5'0"	5'6"	6'0"	6'6"	7'0"	7'6"	8'0"	8'6"	9'0"	9'6"	10'0"	
Single	22	193/84	159/63	134/49									
	20	233/105	193/79	162/61	138/48								
	18	324/152	268/114	225/88	192/69	165/56	144/45	127/37					
	16	415/200	343/150	289/116	246/91	212/73	185/59	162/49	144/41	128/34			
Double	22	188/202	156/152	132/117	112/92	97/74							
	20	237/253	197/190	166/146	142/115	123/92	107/75						
	18	316/367	263/276	221/212	189/167	163/134	143/109	125/90	111/75	99/63	89/53		
	16	405/481	336/361	283/278	242/219	209/175	183/142	161/117	142/98	127/82	114/70	103/60	
Triple	22	233/158	194/119	163/92	140/72	121/58							
	20	294/198	244/149	206/115	176/90	152/72	133/59						
	18	391/287	325/216	275/166	235/131	203/105	177/85	156/70	139/58	124/49	111/42		
	16	500/376	416/283	351/218	301/171	260/137	227/111	200/92	177/77	158/64	142/55	129/47	

Areas marked with this symbol exceed SDI recommended maximum spans. (see database)



LOAD TABLES