

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:

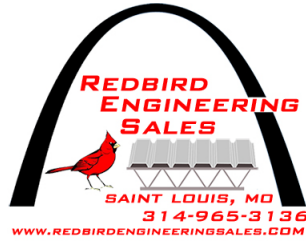
- I<sub>p</sub>, I<sub>n</sub>, S<sub>px</sub> and S<sub>ny</sub> are the section properties per foot of width. These values were calculated using the AISI Specifications. The subscripts denote positive or negative bending.
- Allowable end reaction per foot of deck width with 2" bearing for ASD and the 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 acoustic 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 F, Intermediate Rib Deck

TYPE F

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

Span Condition	Gage	Span (ft. - in.) C. to C. of Support										
		4'0"	4'6"	5'0"	5'6"	6'0"	6'6"	7'0"	7'6"	8'0"	8'6"	
Single	22	130/133	103/94	83/68	69/51	71/49						
	20	160/164	126/115	102/84	85/63	71/49						
	18	220/246	174/173	141/126	116/95	98/73	83/57	72/46				
Double	22	138/321	110/226	89/164	74/124	62/95	53/75					
	20	168/395	133/278	108/202	89/152	75/117	64/92	55/74				
	18	227/593	180/416	146/303	121/228	102/176	87/138	75/111	65/90	57/74	51/62	
Triple	22	172/251	136/176	111/129	92/97	77/74	66/59					
	20	209/309	166/217	135/158	111/119	94/92	80/72	69/58				
	18	282/464	224/326	182/238	151/178	127/137	108/108	93/87	81/70	72/58	63/48	

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

Span Condition	Gage	Span (ft. - in.) C. to C. of Support										
		4'0"	4'6"	5'0"	5'6"	6'0"	6'6"	7'0"	7'6"	8'0"	8'6"	
Single	22	206/133	163/94	132/68	109/51							
	20	253/164	200/115	162/84	134/63	113/49						
	18	348/246	275/173	223/126	184/95	155/73	132/57	114/46				
Double	22	219/321	173/226	141/164	116/124	98/95	84/75					
	20	266/395	210/278	171/202	141/152	119/117	101/92	88/74				
	18	359/593	285/416	231/303	191/228	161/176	137/138	118/111	103/90	91/74	80/62	
Triple	22	272/251	216/176	175/129	145/97	122/74	104/59					
	20	330/309	262/217	213/158	176/119	148/92	127/72	109/58				
	18	446/464	354/326	288/238	238/178	201/137	171/108	148/87	129/70	113/58	100/48	

