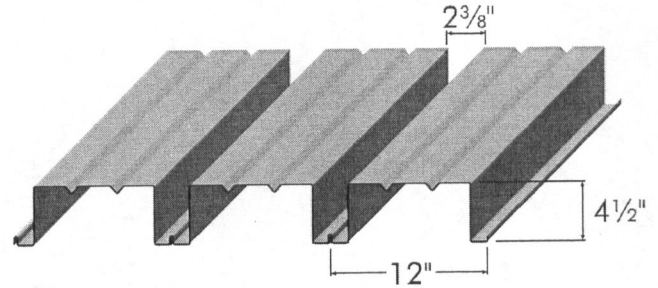


D4.5 ROOF DECK

4.5" high x 12" pitch x 12" wide

SECTION PROPERTIES $f_y = 33 \text{ ksi}$

GAGE	Wd (psf)	Ip (in ⁴)	In (in ⁴)	Sp (in ³)	Sn (in ³)
20	2.82	2.559	2.564	0.912	0.928
18	3.73	3.395	3.395	1.229	1.229
16	4.71	4.283	4.283	1.551	1.551
14	5.88	5.350	5.350	1.937	1.937

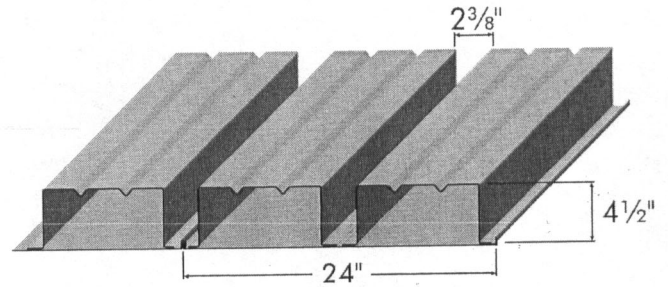


DC4.5 ROOF DECK

4.5" high x 24" pitch x 24" wide

SECTION PROPERTIES $f_y = 33 \text{ ksi}$

GAGE	Wd (psf)	Ip (in ⁴)	In (in ⁴)	Sp (in ³)	Sn (in ³)
20/20	4.08	4.335	3.174	1.546	1.202
20/18	4.58	4.796	3.743	1.579	1.548
18/20	4.87	5.316	3.780	2.106	1.360
18/18	5.38	5.953	4.421	2.157	1.706
18/16	5.94	6.461	5.123	2.196	2.133
16/18	6.24	6.862	5.096	2.784	1.875
16/16	6.79	7.510	5.841	2.839	2.302
14/14	8.45	9.382	7.650	3.582	3.092



MAXIMUM ALLOWABLE UNIFORM TOTAL LOADS, (psf) **

GAGE	D4.5 - SINGLE SPAN								DC4.5 - SINGLE SPAN															
	20		18		16		14		20/20		20/18		18/20		18/18		18/16		16/18		16/16		14/14	
	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD
9'-0"	108	78	222	160	383	253	492	316	109	78	108	78	222	160	222	160	222	160	383	276	383	276	628	453
10'-0"	97	70	200	144	291	205	361	256	98	71	97	70	200	144	200	144	200	144	344	248	344	248	565	408
11'-0"	88	64	177	131	221	169	274	211	89	64	88	64	182	131	182	131	182	131	313	226	313	226	473	371
12'-0"	81	57	139	113	173	142	213	178	81	59	81	58	166	120	166	120	166	120	271	207	287	207	366	328
13'-0"	75	54	111	96	138	121	170	151	75	54	75	54	154	111	154	111	154	111	215	191	234	191	290	280
14'-0"	69	50	91	83	112	104	168	130	70	50	69	50	137	103	143	103	143	103	174	174	190	177	234	234
15'-0"	60	47	76	72	93	91	114	114	65	47	65	47	113	96	126	96	133	96	143	143	156	156	193	193
16'-0"	51	44	64	63	79	79	96	96	61	44	61	44	95	90	105	90	114	90	120	120	130	130	160	160
17'-0"	44	41	55	55	67	67	82	82	58	41	57	41	81	81	90	85	96	85	102	102	110	110	135	135
18'-0"	39	37	48	48	58	58	70	70	54	39	54	39	70	70	77	77	83	80	87	87	95	95	116	116
19'-0"	34	33	43	43	51	51	61	61	51	37	51	37	61	61	67	67	72	72	76	76	82	82	100	100
20'-0"	31	30	38	38	45	45	54	54	46	35	49	35	54	54	59	59	63	63	66	66	72	72	87	87
21'-0"	28	27	34	34	40	40	48	48	41	34	44	33	48	48	52	52	56	56	59	59	63	63	77	77
22'-0"	26	25	31	31	36	36	43	43	37	32	40	32	43	43	47	47	50	50	52	52	56	56	68	68
23'-0"	24	23	28	28	33	33	39	39	33	31	36	30	39	39	42	42	45	45	47	47	51	51	61	61
24'-0"	22	21	26	26	30	30	35	35	31	29	33	29	35	35	38	38	41	41	43	43	46	46	55	55
25'-0"	21	19	24	24	28	28	32	32	28	28	30	28	32	32	35	35	37	37	39	39	42	42	49	49

WEB CRIPPLING & SHEAR VALUES - D4.5 & DC4.5

GAGE	t (in)	Rbe (lb/ft)		Rbi (lb/ft)		Vn (lb/ft)	
		LRFD	ASD	LRFD	ASD	LRFD	ASD
20	0.0295	485	350	1457	1051	2770	1803
18	0.0358	999	720	2406	1735	5901	3893
16	0.0474	1722	1242	3616	2608	9393	6197
14	0.0598	2826	2038	5476	3949	12090	8381

- Wd Weight of deck (uncoated)
- Ip Moment of inertia of deck for positive bending
- In Moment of inertia of deck for negative bending

- ** An assumed 10 psf dead load is added to deflection
- Sp Section modulus of deck for positive bending
- Sn Section modulus of deck for negative bending

The section property table is based on AISI's Cold Formed Steel Design Manual, 1996 Edition.

The loads and maximum construction spans are based on the Design Manual for Composite Decks, Form Decks, Roof Decks and Cellular Deck Floor Systems with Electrical Distribution, Pub No. 29. Available as acoustical, see page 37 for additional information.