

SD DECK

1-1/2" high x 6" pitch x 30" wide (26 and 24 gage)
x 36" wide (22 gage and thicker)

SECTION PROPERTIES

GAGE	t (in)	Wd (psf)	As (in ²)	Ip (in ⁴)	In (in ⁴)	Sp (in ³)	Sn (in ³)
26	0.0179	1.00	0.294	0.077	0.100	0.087	0.098
24	0.0238	1.33	0.391	0.111	0.141	0.128	0.141
22	0.0295	1.65	0.484	0.162	0.187	0.194	0.202
20	0.0358	2.00	0.588	0.209	0.227	0.240	0.250

MAXIMUM ALLOWABLE UNIFORM TOTAL LOADS, (psf)

GAGE	SINGLE SPAN								DOUBLE SPAN								TRIPLE SPAN							
	26		24		22		20		26		24		22		20		26		24		22		20	
	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD	LRFD	ASD		
span	206	130	305	192	253	160	314	198	234	147	335	212	264	167	326	206	292	184	419	265	330	209	407	257
L/240	79		113		166		214		190		273		399		516		149		214		312		404	
L/180	105		151		221		286		254		364		532		688		199		285		416		539	
4'-0"	163	103	241	152	200	126	248	157	185	117	265	167	209	132	258	163	231	146	331	209	261	165	322	203
L/240	56		80		116		151		134		192		280		363		105		150		219		284	
L/180	74		106		155		201		178		256		374		483		140		200		292		378	
5'-0"	132	83	195	123	162	102	201	127	149	94	215	135	169	107	209	132	187	118	268	169	211	133	261	165
L/240	41		58		85		110		98		140		204		264		76		109		160		207	
L/180	54		77		113		146		130		186		272		352		102		146		213		276	
5'-6"	109	69	161	102	134	85	166	105	124	78	177	112	140	88	172	109	154	98	222	140	175	110	215	136
L/240	30		44		64		82		73		105		154		199		57		82		120		155	
L/180	41		58		85		110		98		140		205		265		76		110		160		207	
6'-0"	92	58	135	86	112	71	139	88	104	66	149	94	117	74	145	91	130	82	186	118	147	93	181	114
L/240	23		34		49		64		56		81		118		153		44		63		93		120	
L/180	31		45		65		85		75		108		158		204		59		84		123		160	
6'-6"	78	49	115	73	96	61	119	75	88	56	127	80	100	63	123	78	111	70	159	100	125	79	154	97
L/240	18		26		39		50		44		64		93		120		35		50		73		94	
L/180	25		35		52		67		59		85		124		160		46		66		97		126	
7'-0"	67	42	99	63	83	52	102	65	76	48	109	69	86	54	106	67	95	60	137	86	108	68	133	84
L/240	15		21		31		40		36		51		74		96		28		40		58		75	
L/180	20		28		41		53		47		68		99		128		37		53		78		100	
7'-6"	59	37	87	55	72	45	89	56	66	42	95	60	75	47	93	59	83	52	119	75	94	59	116	73
L/240	12		17		25		33		29		41		61		78		23		32		47		61	
L/180	16		23		34		43		39		55		81		104		30		43		63		82	
8'-0"	52	33	76	48	63	40	78	50	58	37	84	53	66	42	81	51	73	46	105	66	83	52	102	64
L/240	10		14		21		27		24		34		50		65		19		27		39		50	
L/180	13		19		28		36		32		46		67		86		25		36		52		67	
8'-6"	46	29	67	43	56	35	69	44	52	33	74	47	58	37	72	46	65	41	93	59	73	46	90	57
L/240	8		12		17		22		20		28		42		54		16		22		33		42	
L/180	11		16		23		30		26		38		55		72		21		30		43		56	
9'-0"	41	26	60	38	50	32	62	39	46	29	66	42	52	33	64	41	58	36	83	52	65	41	80	51
L/240	7		10		15		19		17		24		35		45		13		19		27		35	
L/180	9		13		19		25		22		32		47		60		17		25		37		47	

MAXIMUM CONSTRUCTION SPANS (center-to-center of supports)

span	3'-11"	4'-9"	5'-9"	6'-6"	4'-8"	5'-7"	6'-9"	7'-8"	4'-8"	5'-7"	6'-9"	7'-8"
cantilever	1'-6"	1'-10"	2'-0"	2'-4"	1'-6"	1'-10"	2'-0"	2'-4"	1'-6"	1'-10"	2'-0"	2'-4"

span	LRFD	ASD	design method
4'-0"	206	130	maximum allowable uniform TOTAL (dead+live) load based on stress
L/240	79		maximum allowable uniform LIVE load based L/240 roof deck deflection
L/180	105		maximum allowable uniform LIVE load based L/180 form deck deflection
			span (center-to-center of supports) and deflection restriction

t Design thickness of deck
Wd Weight of deck (uncoated)
As Average area of steel of deck per foot width
Ip Moment of inertia of deck for positive bending
In Moment of inertia of deck for negative bending
Sp Section modulus of deck for positive bending
Sn Section modulus of deck for negative bending

span Maximum single or multiple span during construction
cantilever Maximum cantilever during construction
fy 80 ksi for 26 and 24 gages (30" cover width)
33 ksi for 22 gage and thicker (36" cover width)

The section property table is based on AISI's Cold Formed Steel Design Manual, 1996 Edition. Venting is available up to 1-1/2% if specified. 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. The above maximum spans are based on SDI roof deck loading criteria. Deck with light weight insulating fill will have significantly larger spans during construction. Contact CSI for additional information.