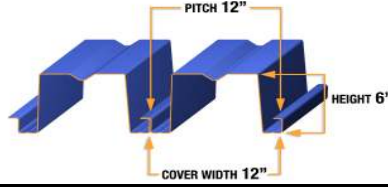


SECTION PROPERTIES

fy=40 ksi

GAGE	Wd	Ip	In	Sp	Sn	Rbe			Rbi			Va
						4"	5"	6"	4"	5"	6"	
20	3.45	5.537	5.637	1.570	1.715	751	815	873	1326	1426	1517	1783
18	4.56	7.569	7.609	2.292	2.363	1279	1384	1479	2208	2367	2511	4147
16	5.75	9.589	9.589	2.943	2.978	1975	2131	2273	3366	3598	3807	8344
14	7.18	11.963	11.963	3.713	3.713	2982	3210	3416	5041	5371	5669	13447



LSD DESIGN		MAXIMUM SUPERIMPOSED UNIFORM LSD LOADS (psf)											
Span	Load Combinations	SINGLE SPAN				DOUBLE SPAN				TRIPLE SPAN			
		GAGE											
		20	18	16	14	20	18	16	14	20	18	16	14
15' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	96*	165*	256*	387	77*	128*	196*	287**	88*	146*	224*	335*
	D+L (Deflection)	96	143	181	226	77	128	196	287	88	146	224	335
	L (Deflection)	72	98	124	155	77	128	196	287	88	146	224	292
16' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	90*	154*	240*	339	72*	120*	183**	257**	82*	137*	209*	313*
	D+L (Deflection)	85	117	148	185	72	120	183	257	82	137	209	313
	L (Deflection)	59	81	102	128	72	120	183	257	82	137	193	241
17' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	84*	145*	225*	299	67*	112*	165**	232**				
	D+L (Deflection)	71	97	122	153	67	112	165	232				
	L (Deflection)	49	67	85	107	67	112	165	232				
18' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	79*	136*	211	266	63*	104**	149**	209**				
	D+L (Deflection)	59	81	102	128	63	104	149	209				
	L (Deflection)	42	57	72	90	63	104	149	209				
19' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	75*	129*	188	238	59**	95**	136**	190**				
	D+L (Deflection)	50	68	86	107	59	95	136	190				
	L (Deflection)	35	48	61	76	59	95	136	181				
20' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	71*	122*	169	214	54**	87**	124**	173**				
	D+L (Deflection)	42	58	73	91	54	87	124	173				
	L (Deflection)	30	41	52	65	54	87	124	156				
21' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	67*	116*	153	193	50**	80**	114**	158**				
	D+L (Deflection)	36	49	62	78	50	80	114	158				
	L (Deflection)	26	36	45	57	50	80	108	134				
22' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	64*	108	139	175	46**	73**	105**	145**				
	D+L (Deflection)	31	42	53	67	46	73	105	145				
	L (Deflection)	23	31	39	49	46	73	94	117				
23' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	61*	98	126	159	42**	68**	96**	134**				
	D+L (Deflection)	26	36	46	57	42	68	96	134				
	L (Deflection)	20	27	34	43	42	65	82	102				
24' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	58*	90	115	146	39**	63**	89**	123**				
	D+L (Deflection)	23	31	40	50	39	63	89	123				
	L (Deflection)	18	24	30	38	39	57	72	90				
25' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	56*	82	106	134								
	D+L (Deflection)	20	27	35	43								
	L (Deflection)	16	21	27	34								
26' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	51	76	97	123								
	D+L (Deflection)	17	24	30	38								
	L (Deflection)	14	19	24	30								
27' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	47	70	90	113								
	D+L (Deflection)	15	21	26	33								
	L (Deflection)	12	17	21	27								
28' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	44	64	83	105								
	D+L (Deflection)	13	18	23	29								
	L (Deflection)	11	15	19	24								

15' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	96*	← Max. superimposed factored LSD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	96	← Max. superimposed unfactored LSD dead + live load (psf) (governed by deflection limitation of L/240)
	L (Deflection)	72	← Max. superimposed unfactored LSD live load (psf) (governed by deflection limitation of L/360)
			↑ Vertical load span (center to center spacing)

Wd Weight of deck (uncoated), psf

Ip Moment of inertia for positive bending per foot of deck width, (in<sup>4</sup>)/ft

In Moment of inertia for negative bending per foot of deck width, (in<sup>4</sup>)/ft

Sp Section modulus for positive bending per foot of deck width, (in<sup>3</sup>)/ft

Sn Section modulus for negative bending per foot of deck width, (in<sup>3</sup>)/ft

$\alpha_D, \alpha_L$  Load factors for D & L loads to be applied by Engineer in accordance with Building Codes.

Rbe Allowable exterior web crippling value per foot of deck width, plf

Rbi Allowable interior web crippling value per foot of deck width, plf

Va Allowable shear value per foot of deck width, plf

D Uniform dead load, psf

L Uniform live load, psf

- Notes:**
- Bending strength based on allowable flexural stress of 36 ksi.
  - Loads marked with asterisk (\*) are governed by interior (6" bearing) or exterior (4" bearing) reactions (web crippling).
  - Loads marked with two asterisks (\*\*) are governed by moment & shear or moment & reactions (web crippling) assuming 6" of interior bearing.
  - An upper limit of 400 psf has been applied to the loads.
  - Deck length over 45'-0" require inquiry and special accommodations. Please contact the Metal-Dek Group® for further information.

The section properties table is based on 2001 AISI's North American Specification for the Design of Cold-Formed Steel Structural Members (2004 Supplement).

Loads are calculated in accordance with requirements of CSSBI 10M-06. *Standard for Steel Roof Deck*.

Acoustical profile is also available.