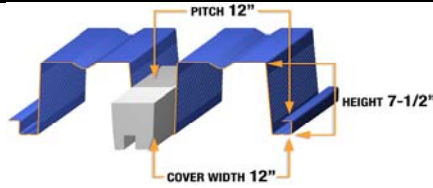


SECTION PROPERTIES

fy=40 ksi

GAGE	Wd	Ip	In	Sp	Sn	Rbe			Rbi			Va
						4"	5"	6"	4"	5"	6"	
20	3.52	8.324	8.134	1.702	1.900	575	588	600	963	1037	1104	1420
18	4.66	11.399	11.157	2.754	2.722	1098	1121	1142	1595	1712	1817	3300
16	5.87	14.454	14.454	3.568	3.616	1849	1884	1916	2422	2591	2744	6637
14	7.33	18.042	18.042	4.512	4.512	2880	3068	3115	3614	3855	4072	12962



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
17' - 0"	$\alpha_D + \alpha_L$ (Strength)	63*	123*	210*	330*	48*	80*	122*	182*				
	D+L (Deflection)	63	123	187	234	48	80	122	182				
	L (Deflection)	63	102	129	161	48	80	122	182				
18' - 0"	$\alpha_D + \alpha_L$ (Strength)	59*	116*	198*	311*	45*	75*	115*	172*				
	D+L (Deflection)	59	116	157	196	45	75	115	172				
	L (Deflection)	59	86	108	135	45	75	115	172				
19' - 0"	$\alpha_D + \alpha_L$ (Strength)	56*	110*	187*	291	42*	71*	108*	162*				
	D+L (Deflection)	56	104	132	165	42	71	108	162				
	L (Deflection)	53	73	92	115	42	71	108	162				
20' - 0"	$\alpha_D + \alpha_L$ (Strength)	53*	104*	178*	262	40*	67*	102*	154*				
	D+L (Deflection)	53	89	113	141	40	67	102	154				
	L (Deflection)	46	62	79	99	40	67	102	154				
21' - 0"	$\alpha_D + \alpha_L$ (Strength)	50*	99*	169*	236	38*	63*	97*	146*				
	D+L (Deflection)	50	76	97	121	38	63	97	146				
	L (Deflection)	39	54	68	85	38	63	97	146				
22' - 0"	$\alpha_D + \alpha_L$ (Strength)	48*	94*	161*	215	36*	60*	92*	137**				
	D+L (Deflection)	48	66	83	104	36	60	92	137				
	L (Deflection)	34	47	59	74	36	60	92	137				
23' - 0"	$\alpha_D + \alpha_L$ (Strength)	46*	90*	153*	196	34*	57*	88*	127**				
	D+L (Deflection)	41	57	72	90	34	57	88	127				
	L (Deflection)	30	41	52	65	34	57	88	127				
24' - 0"	$\alpha_D + \alpha_L$ (Strength)	43*	86*	141	179	32*	55*	83**	118**				
	D+L (Deflection)	36	49	63	78	32	55	83	118				
	L (Deflection)	26	36	46	57	32	55	83	118				
25' - 0"	$\alpha_D + \alpha_L$ (Strength)	42*	82*	130	164								
	D+L (Deflection)	31	43	55	68								
	L (Deflection)	23	32	40	51								
26' - 0"	$\alpha_D + \alpha_L$ (Strength)	40*	79*	119	151								
	D+L (Deflection)	28	38	48	60								
	L (Deflection)	21	28	36	45								
27' - 0"	$\alpha_D + \alpha_L$ (Strength)	38*	76*	110	139								
	D+L (Deflection)	24	33	42	53								
	L (Deflection)	19	25	32	40								
28' - 0"	$\alpha_D + \alpha_L$ (Strength)	37*	73*	102	129								
	D+L (Deflection)	21	29	37	47								
	L (Deflection)	17	23	29	36								
29' - 0"	$\alpha_D + \alpha_L$ (Strength)	35*	70*	94	120								
	D+L (Deflection)	19	26	33	41								
	L (Deflection)	15	20	26	32								
30' - 0"	$\alpha_D + \alpha_L$ (Strength)	34*	67*	88	111								
	D+L (Deflection)	17	23	29	37								
	L (Deflection)	13	18	23	29								

17' - 0"	$\alpha_D + \alpha_L$ (Strength)	63*	← Max. superimposed factored LSD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	63	← Max. superimposed unfactored LSD dead + live load (psf) (governed by deflection limitation of L/240)
	L (Deflection)	63	← 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, pif

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

Va Allowable shear value per foot of deck width, pif

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.