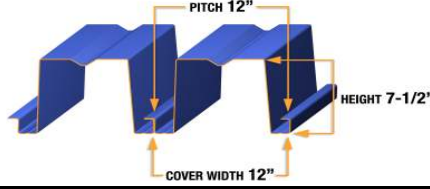


SECTION PROPERTIES

fy=40 ksi

GAGE	Wd	Ip	In	Sp	Sn	Rbe			Rbi			Va
						4"	5"	6"	4"	5"	6"	
20	3.80	9.262	9.141	1.967	2.165	708	769	824	1317	1417	1507	1420
18	5.02	12.639	12.445	3.097	3.061	1219	1319	1410	2196	2354	2497	3300
16	6.33	16.014	16.014	3.973	4.020	1896	2046	2182	3350	3580	3788	6637
14	7.90	19.979	19.979	5.013	5.013	2880	3100	3298	5019	5347	5644	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"	$\alpha_D D + \alpha_L L$ (Strength)	79*	137*	215*	329*	66*	111*	170*	256*				
	D+L (Deflection)	79	137	208	259	66	111	170	256				
	L (Deflection)	79	113	143	178	66	111	170	256				
18' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	74*	129*	203*	310*	62*	105*	160*	241*				
	D+L (Deflection)	74	129	174	217	62	105	160	241				
	L (Deflection)	70	95	120	150	62	105	160	241				
19' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	70*	122*	192*	293*	59*	99*	152*	227**				
	D+L (Deflection)	70	116	147	183	59	99	152	227				
	L (Deflection)	59	81	102	128	59	99	152	227				
20' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	66*	116*	182*	278*	56*	94*	144*	207**				
	D+L (Deflection)	66	99	125	156	56	94	144	207				
	L (Deflection)	51	69	88	109	56	94	144	207				
21' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	63*	110*	173*	263	53*	89*	135**	191**				
	D+L (Deflection)	62	85	107	134	53	89	135	191				
	L (Deflection)	44	60	76	94	53	89	135	191				
22' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	60*	105*	164*	239	50*	84**	124**	176**				
	D+L (Deflection)	53	73	92	115	50	84	124	176				
	L (Deflection)	38	52	66	82	50	84	124	176				
23' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	57*	100*	157*	218	47**	78**	115**	162**				
	D+L (Deflection)	46	63	80	100	47	78	115	162				
	L (Deflection)	33	45	58	72	47	78	115	162				
24' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	54*	95*	150*	199	44**	72**	107**	150**				
	D+L (Deflection)	40	55	70	87	44	72	107	150				
	L (Deflection)	29	40	51	63	44	72	107	150				
25' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	52*	91*	144*	183								
	D+L (Deflection)	35	48	61	76								
	L (Deflection)	26	35	45	56								
26' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	50*	88*	133	168								
	D+L (Deflection)	31	42	53	67								
	L (Deflection)	23	31	40	50								
27' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	48*	84*	123	155								
	D+L (Deflection)	27	37	47	59								
	L (Deflection)	21	28	36	44								
28' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	46*	81*	114	144								
	D+L (Deflection)	24	33	42	52								
	L (Deflection)	18	25	32	40								
29' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	44*	78*	105	133								
	D+L (Deflection)	21	29	37	46								
	L (Deflection)	17	23	29	36								
30' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	42*	75*	98	124								
	D+L (Deflection)	19	26	33	41								
	L (Deflection)	15	20	26	32								

17' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	79*	← Max. superimposed factored LSD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	79	← Max. superimposed unfactored LSD dead + live load (psf) (governed by deflection limitation of L/240)
	L (Deflection)	79	← 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, (in⁴)/ft
In Moment of inertia for negative bending per foot of deck width, (in⁴)/ft
Sp Section modulus for positive bending per foot of deck width, (in³)/ft
Sn Section modulus for negative bending per foot of deck width, (in³)/ft
 α_D, α_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.