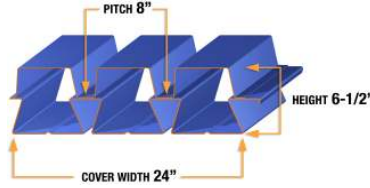


SECTION PROPERTIES

fy=40 ksi

GAGE	Wd	Ip	Sp	Sn	Rbe			Rbi			Va
					2"	3"	4"	3"	4"	5"	
20/20	5.81	7.320	1.581	2.068	927	1062	1177	1724	1886	2029	4633
18/18	7.70	10.811	2.489	2.993	1565	1783	1966	2880	3136	3362	8121
16/16	9.72	14.486	3.564	4.138	2409	2729	2999	4403	4776	5103	11349



LSD DESIGN		MAXIMUM SUPERIMPOSED UNIFORM LSD LOADS (psf)								
Span	Load Combinations	SINGLE SPAN			DOUBLE SPAN			TRIPLE SPAN		
		GAGE								
		20/20	18/18	16/16	20/20	18/18	16/16	20/20	18/18	16/16
13' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	135*	231*	358*	109*	183*	282*	125*	210*	322*
	D+L (Deflection)	135	231	358	109	183	282	125	210	322
	L (Deflection)	135	215	289	109	183	282	125	210	322
14' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	125*	214*	332*	101*	170*	261*	115*	194*	298*
	D+L (Deflection)	125	214	332	101	170	261	115	194	298
	L (Deflection)	117	172	231	101	170	261	115	194	298
15' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	116*	199*	309*	93*	158*	243*	107*	180*	277*
	D+L (Deflection)	116	199	272	93	158	243	107	180	277
	L (Deflection)	95	140	188	93	158	243	107	180	277
16' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	109*	186*	289*	87*	147*	227*			
	D+L (Deflection)	109	166	222	87	147	227			
	L (Deflection)	78	116	155	87	147	227			
17' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	102*	175*	271*	82*	138*	213*			
	D+L (Deflection)	92	137	184	82	138	213			
	L (Deflection)	65	96	129	82	138	213			
18' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	96*	164*	252*	77*	130*	200**			
	D+L (Deflection)	77	114	153	77	130	200			
	L (Deflection)	55	81	109	77	130	200			
19' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	90*	155*	225*	72**	119**	182**			
	D+L (Deflection)	64	96	129	72	119	182			
	L (Deflection)	47	69	92	72	119	182			
20' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	85*	140	202	66**	109**	166**			
	D+L (Deflection)	54	81	109	66	109	166			
	L (Deflection)	40	59	79	66	109	166			
21' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	79	126	182	60**	100**	152**			
	D+L (Deflection)	46	69	93	60	100	152			
	L (Deflection)	35	51	68	60	100	152			
22' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	71	114	165	55**	92**	140**			
	D+L (Deflection)	39	59	80	55	92	140			
	L (Deflection)	30	44	60	55	92	140			
23' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	64	103	150	51**	85**	129**			
	D+L (Deflection)	34	51	68	51	85	129			
	L (Deflection)	26	39	52	51	85	124			
24' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	59	94	136						
	D+L (Deflection)	29	44	59						
	L (Deflection)	23	34	46						
25' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	53	86	125						
	D+L (Deflection)	25	38	51						
	L (Deflection)	21	30	41						
26' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	49	79	114						
	D+L (Deflection)	22	33	44						
	L (Deflection)	18	27	36						

13' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	135*	← Max. superimposed factored LSD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	135	← Max. superimposed unfactored LSD dead + live load (psf) (governed by deflection limitation of L/240)
	L (Deflection)	135	← 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	Rbe	Allowable exterior web crippling value per foot of deck width, plf
Ip	Moment of inertia for positive bending per foot of deck width, (in ⁴)/ft	Rbi	Allowable interior web crippling value per foot of deck width, plf
Sp	Section modulus for positive bending per foot of deck width, (in ³)/ft	Va	Allowable shear value per foot of deck width, plf
Sn	Section modulus for negative bending per foot of deck width, (in ³)/ft	D	Uniform dead load, psf
α_D, α_L	Load factors for D & L loads to be applied by Engineer in accordance with Building Codes.	L	Uniform live load, psf

- Notes:**
- Bending strength based on allowable flexural stress of 36 ksi.
 - Loads marked with asterisk (*) are governed by interior reactions (web crippling) assuming 4" of interior bearing.
 - Loads marked with two asterisks (**) are governed by moment & shear or moment & reactions (web crippling) assuming 4" 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.