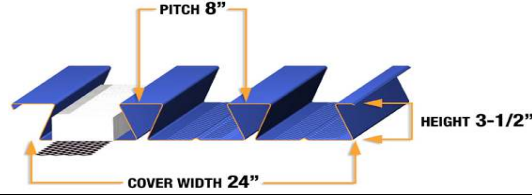


SECTION PROPERTIES

fy=40 ksi

GAGE	Wd	I _b (DEFLECTION)	Sp	Sn	Rbe			Rbi			Va
					2"	3"	4"	3"	4"	5"	
20	3.07	1.809	0.747	0.803	1043	1195	1324	1954	2138	2300	5501
18	4.06	2.450	1.080	1.181	1761	2006	2212	3264	3554	3810	9644
16	5.12	3.122	1.466	1.522	2710	3070	3374	4990	5412	5784	13477



LRFD DESIGN		MAXIMUM SUPERIMPOSED UNIFORM LRFD LOADS (psf)								
Span	Load Combinations	SINGLE SPAN			DOUBLE SPAN			TRIPLE SPAN		
		GAGE								
		20	18	16	20	18	16	20	18	16
10' - 0"	$\lambda_D D + \lambda_L L$ (Strength)	185	269	365	167*	279*	373*	191*	318*	400*
	D+L (Deflection)	115	157	200	167	279	373	191	299	381
	L (Deflection)	79	107	137	167	258	329	149	202	257
11' - 0"	$\lambda_D D + \lambda_L L$ (Strength)	153	221	301	152*	239*	308*	173*	289*	385*
	D+L (Deflection)	86	117	149	152	239	308	165	224	285
	L (Deflection)	59	81	103	143	194	247	112	152	193
12' - 0"	$\lambda_D D + \lambda_L L$ (Strength)	128	185	252	135*	200*	259*	158*	250*	323*
	D+L (Deflection)	65	89	113	135	200	259	126	171	218
	L (Deflection)	46	62	79	110	149	190	86	117	149
13' - 0"	$\lambda_D D + \lambda_L L$ (Strength)	108	157	214	115*	170*	220*	143*	213*	275*
	D+L (Deflection)	51	69	88	115	170	219	99	134	171
	L (Deflection)	36	49	62	87	118	150	68	92	117
14' - 0"	$\lambda_D D + \lambda_L L$ (Strength)	93	135	183	99*	146*	189*	124*	183*	237*
	D+L (Deflection)	40	55	70	99	137	175	78	106	136
	L (Deflection)	29	39	50	69	94	120	54	74	94
15' - 0"	$\lambda_D D + \lambda_L L$ (Strength)	80	117	159	86*	127*	164*	107*	159*	206*
	D+L (Deflection)	32	44	56	82	111	141	63	86	109
	L (Deflection)	23	32	40	56	77	97	44	60	76
16' - 0"	$\lambda_D D + \lambda_L L$ (Strength)	70	102	139	75*	111*	144*	94*	140*	180*
	D+L (Deflection)	26	35	45	67	91	115	52	70	89
	L (Deflection)	19	26	33	47	63	80	36	49	63
17' - 0"	$\lambda_D D + \lambda_L L$ (Strength)	62	90	122	66*	98*	127*			
	D+L (Deflection)	21	29	37	55	75	95			
	L (Deflection)	16	22	28	39	53	67			
18' - 0"	$\lambda_D D + \lambda_L L$ (Strength)	55	80	108	59*	87*	112*			
	D+L (Deflection)	17	24	30	46	62	79			
	L (Deflection)	14	18	23	33	44	56			
19' - 0"	$\lambda_D D + \lambda_L L$ (Strength)	49	71	97	52*	78*	100*			
	D+L (Deflection)	14	19	25	39	52	67			
	L (Deflection)	12	16	20	28	38	48			
20' - 0"	$\lambda_D D + \lambda_L L$ (Strength)	44	64	87	47*	70*	90*			
	D+L (Deflection)	12	16	21	33	44	57			
	L (Deflection)	10	13	17	24	32	41			
21' - 0"	$\lambda_D D + \lambda_L L$ (Strength)	39	57	78	42*	63*	81*			
	D+L (Deflection)	9	12	16	26	36	46			
	L (Deflection)	9	12	15	21	28	36			
22' - 0"	$\lambda_D D + \lambda_L L$ (Strength)	35	52	71	38*	57*	73*			
	D+L (Deflection)	7	10	12	21	29	37			
	L (Deflection)	7	10	12	18	24	31			
23' - 0"	$\lambda_D D + \lambda_L L$ (Strength)	32	47	64	34*	51*	67*			
	D+L (Deflection)	5	7	10	17	24	30			
	L (Deflection)	5	7	10	16	21	27			

10' - 0"	$\lambda_D D + \lambda_L L$ (Strength)	185	← Max. superimposed factored LRFD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	115	← Max. superimposed unfactored LRFD dead + live load (psf) (governed by deflection limitation of L/240 or 1")
	L (Deflection)	79	← Max. superimposed unfactored LRFD live load (psf) (governed by deflection limitation of L/360 or 1")

Vertical load span (center to center spacing)

- Wd** Weight of deck (uncoated), psf
- I_b** Moment of inertia for deflection 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)
- λ_D, λ_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 38 ksi.
 - Loads marked with asterisk (*) are governed by moment & shear, interior reactions (web crippling) or applied moment & reactions 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).