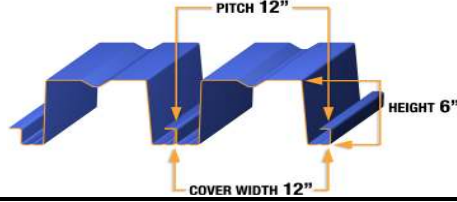


**SECTION PROPERTIES**  $f_y = 40 \text{ ksi}$

GAGE	Wd	I <sub>b</sub> (DEFLECTION)	Sp	Sn	Rbe			Rbi		Va
					4"	5"	6"	5"	6"	
20	3.49	5.701	1.563	1.727	845	917	983	1616	1719	2118
18	4.61	7.651	2.309	2.322	1439	1557	1664	2683	2845	4925
16	5.82	9.642	2.974	3.011	2221	2398	2557	4077	4314	9909
14	7.26	12.028	3.755	3.755	3355	3611	3843	6087	6425	15968



LRFD DESIGN		MAXIMUM SUPERIMPOSED UNIFORM LRFD LOADS, psf											
Span	Load Combinations	SINGLE SPAN				DOUBLE SPAN				TRIPLE SPAN			
		20	18	16	14	20	18	16	14	20	18	16	14
15'-0"	$\lambda_D D + \lambda_L L$ (Strength)	108*	186*	289*	400	88*	146*	223*	334*	100*	167*	254*	381*
	D+L (Deflection)	106	144	182	227	88	146	223	334	100	167	254	381
	L (Deflection)	73	99	125	156	88	146	223	334	100	167	236	294
16'-0"	$\lambda_D D + \lambda_L L$ (Strength)	101*	174*	271*	363	82*	137*	209*	313*	94*	156*	238*	356*
	D+L (Deflection)	87	118	149	186	82	137	209	313	94	156	238	356
	L (Deflection)	60	81	103	129	82	137	209	309	94	154	194	242
17'-0"	$\lambda_D D + \lambda_L L$ (Strength)	95*	164*	254	320	77*	128*	196*	294*				
	D+L (Deflection)	72	97	123	153	77	128	196	294				
	L (Deflection)	50	68	86	107	77	128	196	258				
18'-0"	$\lambda_D D + \lambda_L L$ (Strength)	90*	154*	226	285	72*	121*	185*	277*				
	D+L (Deflection)	60	81	103	128	72	121	185	277				
	L (Deflection)	42	57	72	90	72	121	174	217				
19'-0"	$\lambda_D D + \lambda_L L$ (Strength)	85*	146*	202	255	68*	114*	175*	250*				
	D+L (Deflection)	50	68	86	108	68	114	175	250				
	L (Deflection)	36	49	62	77	68	114	148	185				
20'-0"	$\lambda_D D + \lambda_L L$ (Strength)	80*	138*	181	229	65*	108*	166*	225*				
	D+L (Deflection)	43	58	73	91	65	108	166	225				
	L (Deflection)	31	42	53	66	65	101	127	158				
21'-0"	$\lambda_D D + \lambda_L L$ (Strength)	76*	127	164	207	61*	103*	157*	204*				
	D+L (Deflection)	35	47	59	74	61	103	151	188				
	L (Deflection)	27	36	46	57	61	87	110	137				
22'-0"	$\lambda_D D + \lambda_L L$ (Strength)	73*	115	149	188	58*	98*	147*	185*				
	D+L (Deflection)	28	38	48	60	58	98	124	155				
	L (Deflection)	23	31	40	49	56	76	95	119				
23'-0"	$\lambda_D D + \lambda_L L$ (Strength)	69*	105	135	171	56*	93*	134*	169*				
	D+L (Deflection)	23	31	39	49	56	82	103	129				
	L (Deflection)	20	27	35	43	49	66	84	104				
24'-0"	$\lambda_D D + \lambda_L L$ (Strength)	65	96	124	156	53*	89*	123*	154*				
	D+L (Deflection)	19	26	32	40	51	68	86	107				
	L (Deflection)	18	24	31	38	43	58	73	92				
25'-0"	$\lambda_D D + \lambda_L L$ (Strength)	59	88	114	143								
	D+L (Deflection)	15	21	27	33								
	L (Deflection)	15	21	27	33								
26'-0"	$\lambda_D D + \lambda_L L$ (Strength)	54	81	104	132								
	D+L (Deflection)	13	17	22	27								
	L (Deflection)	13	17	22	27								
27'-0"	$\lambda_D D + \lambda_L L$ (Strength)	50	75	96	122								
	D+L (Deflection)	10	14	18	22								
	L (Deflection)	10	14	18	22								
28'-0"	$\lambda_D D + \lambda_L L$ (Strength)	46	69	89	113								
	D+L (Deflection)	9	12	15	18								
	L (Deflection)	9	12	15	18								

15'-0"	$\lambda_D D + \lambda_L L$ (Strength)	108*	← Max. superimposed factored LRFD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	106	← Max. superimposed unfactored LRFD dead + live load (psf) (governed by deflection limitation)
	L (Deflection)	73	← Max. superimposed unfactored LRFD live load (psf) (governed by deflection limitation)

Vertical load span (center to center spacing)

**Wd** Weight of deck (uncoated), psf

**I<sub>b</sub>** Moment of inertia for deflection 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)

$\lambda_D, \lambda_L$  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, pif

**Rbi** Allowable interior web crippling value per foot of deck, 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 flexural stress limit of 38 ksi.
  - Loads marked with asterisk (\*) are governed by moment & shear, interior (6" bearing) and exterior (4" bearing) reactions (web crippling) or moment & reactions.
  - Deflection based on maximum dead + live load deflection of L/240 or 1 in. and on maximum live load deflection of L/360 or 1 in.
  - 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). Acoustical profile is also available.