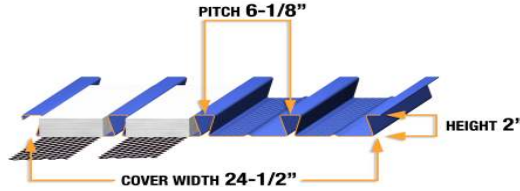


**SECTION PROPERTIES**

fy=40 ksi

GAGE	Wd	I <sub>b</sub> (DEFLECTION)	Sp	Sn	Rbe			Rbi			Va
					2"	3"	4"	3"	4"	5"	
22	2.06	0.383	0.283	0.288	1089	1254	1393	1891	2076	2239	4482
20	2.50	0.466	0.355	0.355	1550	1777	1969	2693	2947	3170	5414
18	3.31	0.620	0.474	0.480	2583	2942	3245	4493	4892	5245	7107
16	4.17	0.784	0.603	0.606	3937	4461	4902	6862	7441	7952	8884



LRFD DESIGN		MAXIMUM SUPERIMPOSED UNIFORM LRFD LOADS (psf)											
Span	Load Combinations	SINGLE SPAN				DOUBLE SPAN				TRIPLE SPAN			
		22	20	18	16	22	20	18	16	22	20	18	16
8' - 6"	λ <sub>D</sub> D+λ <sub>L</sub> L (Strength)	97	121	162	206	98*	121*	163*	206*	122*	151*	204*	257*
	D+L (Deflection)	39	47	63	80	97	117	156	198	75	91	122	154
	L (Deflection)	27	33	44	56	66	80	106	135	51	63	83	105
9' - 0"	λ <sub>D</sub> D+λ <sub>L</sub> L (Strength)	86	108	144	184	87*	107*	145*	183*	109*	135*	182*	229*
	D+L (Deflection)	32	39	52	66	81	99	131	166	63	77	102	129
	L (Deflection)	23	28	37	47	55	67	90	113	43	53	70	89
9' - 6"	λ <sub>D</sub> D+λ <sub>L</sub> L (Strength)	77	97	129	164	78*	96*	130*	164*	98*	121*	163*	206*
	D+L (Deflection)	27	33	44	56	69	83	111	140	53	65	86	109
	L (Deflection)	20	24	32	40	47	57	76	96	37	45	60	75
10' - 0"	λ <sub>D</sub> D+λ <sub>L</sub> L (Strength)	69	87	116	148	70*	87*	117*	148*	88*	109*	147*	185*
	D+L (Deflection)	23	28	37	47	58	71	95	120	45	55	73	93
	L (Deflection)	17	20	27	34	40	49	65	83	32	38	51	65
10' - 6"	λ <sub>D</sub> D+λ <sub>L</sub> L (Strength)	63	78	105	134	63*	78*	106*	133*	80*	98*	133*	168*
	D+L (Deflection)	20	24	32	40	50	61	81	103	39	47	63	80
	L (Deflection)	14	18	23	30	35	42	56	71	27	33	44	56
11' - 0"	λ <sub>D</sub> D+λ <sub>L</sub> L (Strength)	57	71	95	121	58*	71*	96*	121*	72*	89*	121*	152*
	D+L (Deflection)	17	20	27	35	43	53	70	89	34	41	54	69
	L (Deflection)	13	15	20	26	30	37	49	62	24	29	38	49
11' - 6"	λ <sub>D</sub> D+λ <sub>L</sub> L (Strength)	52	65	87	111	52*	65*	88*	111*	66*	82*	110*	139*
	D+L (Deflection)	14	18	23	30	38	46	61	77	29	35	47	60
	L (Deflection)	11	13	18	23	27	32	43	54	21	25	34	43
12' - 0"	λ <sub>D</sub> D+λ <sub>L</sub> L (Strength)	47	59	79	101	48*	59*	80*	101*	61*	75*	101*	127*
	D+L (Deflection)	12	15	20	26	33	40	53	68	25	31	41	52
	L (Deflection)	10	12	16	20	23	28	38	48	18	22	30	37
12' - 6"	λ <sub>D</sub> D+λ <sub>L</sub> L (Strength)	43	55	73	93	44*	54*	74*	93*	56*	69*	93*	117*
	D+L (Deflection)	11	13	18	22	29	35	47	59	22	27	36	45
	L (Deflection)	9	10	14	18	21	25	33	42	16	20	26	33
13' - 0"	λ <sub>D</sub> D+λ <sub>L</sub> L (Strength)	40	50	67	85	41*	50*	68*	85*	51*	63*	85*	108*
	D+L (Deflection)	9	11	15	19	25	31	41	52	20	24	32	40
	L (Deflection)	8	9	12	16	18	22	30	38	14	17	23	29
13' - 6"	λ <sub>D</sub> D+λ <sub>L</sub> L (Strength)	37	46	62	79	37*	46*	63*	79*	47*	58*	79*	100*
	D+L (Deflection)	8	10	13	17	23	27	36	46	17	21	28	35
	L (Deflection)	7	8	11	14	16	20	27	34	13	16	21	26
14' - 0"	λ <sub>D</sub> D+λ <sub>L</sub> L (Strength)	34	43	57	73	35*	43*	58*	73*	44*	54*	73*	92*
	D+L (Deflection)	7	9	12	15	20	24	32	41	15	19	25	31
	L (Deflection)	6	7	10	13	15	18	24	30	12	14	19	24
14' - 6"	λ <sub>D</sub> D+λ <sub>L</sub> L (Strength)	32	40	53	68	32*	40*	54*	68*	41*	50*	68*	86*
	D+L (Deflection)	6	8	10	13	18	22	29	36	13	16	22	28
	L (Deflection)	6	7	9	11	13	16	21	27	10	13	17	21
15' - 0"	λ <sub>D</sub> D+λ <sub>L</sub> L (Strength)	29	37	49	63	30*	37*	50*	63*	38*	47*	63*	80*
	D+L (Deflection)	5	7	9	11	16	19	26	33	12	15	19	25
	L (Deflection)	5	6	8	10	12	15	19	24	9	11	15	19

8' - 6"	λ <sub>D</sub> D+λ <sub>L</sub> L (Strength)	97	← Max. superimposed factored LRFD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	39	← Max. superimposed unfactored LRFD dead + live load (psf) (governed by deflection limitation of L/240 or 1")
	L (Deflection)	27	← Max. superimposed unfactored LRFD live load (psf) (governed by deflection limitation of L/360 or 1")

↑ Vertical load span (center to center spacing)

- |                                 |   |            |  |
|---------------------------------|---|------------|--|
| <b>Wd</b>                       | Weight of deck (uncoated), psf  | <b>Rbe</b> | Allowable exterior web crippling value per foot of deck width, plf |
| <b>I<sub>b</sub></b>            | Moment of inertia for deflection per foot of deck width (in <sup>4</sup> /ft)             | <b>Rbi</b> | Allowable interior web crippling value per foot of deck width, plf |
| <b>Sp</b>                       | Section modulus for positive bending per foot of deck width, (in <sup>3</sup> /ft)        | <b>Va</b>  | Allowable shear value per foot of deck width, plf                  |
| <b>Sn</b>                       | Section modulus for negative bending per foot of deck width, (in <sup>3</sup> /ft)        | <b>D</b>   | Uniform dead load, psf   |
| λ <sub>D</sub> , λ <sub>L</sub> | Load factors for D & L loads to be applied by Engineer in accordance with Building Codes. | <b>L</b>   | 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).