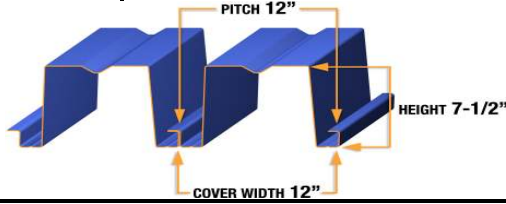


**SECTION PROPERTIES**  $f_y = 40 \text{ ksi}$

GAGE	Wd	I <sub>b</sub> (DEFLECTION)	S <sub>p</sub>	S <sub>n</sub>	Rbe			Rbi		Va
					4"	5"	6"	5"	6"	
20	3.83	9.435	1.961	2.178	797	865	927	1606	1708	1686
18	5.07	12.745	3.108	3.111	1372	1484	1586	2668	2829	3919
16	6.39	16.125	4.022	4.073	2133	2302	2455	4057	4293	7881
14	7.98	20.118	5.079	5.079	3240	3487	3710	6060	6397	15392



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
17'-0"	$\lambda_D D + \lambda_L L$ (Strength)	89*	155*	243*	372*	76*	127*	194*	291*				
	D+L (Deflection)	89	155	209	261	76	127	194	291				
	L (Deflection)	84	114	144	179	76	127	194	291				
18'-0"	$\lambda_D D + \lambda_L L$ (Strength)	84*	146*	229*	350*	71*	120*	183*	275*				
	D+L (Deflection)	84	138	175	219	71	120	183	275				
	L (Deflection)	71	96	121	151	71	120	183	275				
19'-0"	$\lambda_D D + \lambda_L L$ (Strength)	79*	138*	217*	331*	67*	113*	173*	260*				
	D+L (Deflection)	79	117	148	185	67	113	173	260				
	L (Deflection)	60	81	103	128	67	113	173	260				
20'-0"	$\lambda_D D + \lambda_L L$ (Strength)	75*	131*	206*	312	64*	107*	164*	246*				
	D+L (Deflection)	74	100	126	157	64	107	164	246				
	L (Deflection)	52	70	88	110	64	107	164	246				
21'-0"	$\lambda_D D + \lambda_L L$ (Strength)	71*	125*	195*	282	60*	102*	156*	234*				
	D+L (Deflection)	60	81	102	128	60	102	156	234				
	L (Deflection)	45	60	76	95	60	102	156	229				
22'-0"	$\lambda_D D + \lambda_L L$ (Strength)	68*	119*	186*	256	58*	97*	148*	223*				
	D+L (Deflection)	49	66	84	105	58	97	148	223				
	L (Deflection)	39	52	66	83	58	97	148	199				
23'-0"	$\lambda_D D + \lambda_L L$ (Strength)	65*	113*	178*	234	55*	92*	142*	213*				
	D+L (Deflection)	40	55	69	86	55	92	142	213				
	L (Deflection)	34	46	58	72	55	92	140	174				
24'-0"	$\lambda_D D + \lambda_L L$ (Strength)	62*	108*	169	214	52*	88*	135*	204*				
	D+L (Deflection)	34	45	57	72	52	88	135	184				
	L (Deflection)	30	40	51	64	52	88	123	153				
25'-0"	$\lambda_D D + \lambda_L L$ (Strength)	59*	104*	155	196								
	D+L (Deflection)	28	38	48	60								
	L (Deflection)	26	36	45	56								
26'-0"	$\lambda_D D + \lambda_L L$ (Strength)	57*	99*	143	181								
	D+L (Deflection)	23	32	40	50								
	L (Deflection)	23	32	40	50								
27'-0"	$\lambda_D D + \lambda_L L$ (Strength)	54*	96*	132	167								
	D+L (Deflection)	19	26	33	42								
	L (Deflection)	19	26	33	42								
28'-0"	$\lambda_D D + \lambda_L L$ (Strength)	52*	92*	122	155								
	D+L (Deflection)	16	22	28	35								
	L (Deflection)	16	22	28	35								
29'-0"	$\lambda_D D + \lambda_L L$ (Strength)	50*	88	113	143								
	D+L (Deflection)	14	19	24	29								
	L (Deflection)	14	19	24	29								
30'-0"	$\lambda_D D + \lambda_L L$ (Strength)	49*	81	106	133								
	D+L (Deflection)	11	16	20	25								
	L (Deflection)	11	16	20	25								

17'-0"	$\lambda_D D + \lambda_L L$ (Strength)	89*	← Max. superimposed factored LRFD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	89	← Max. superimposed unfactored LRFD dead + live load (psf) (governed by deflection limitation)
	L (Deflection)	84	← Max. superimposed unfactored LRFD live load (psf) (governed by deflection limitation)

↑ Vertical load span (center to center spacing)

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