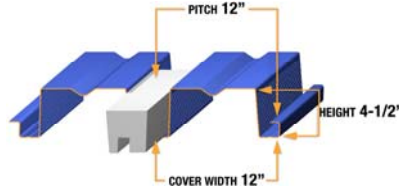


SECTION PROPERTIES

fy=40 ksi

GAGE	Wd	I <sub>b</sub> (DEFLECTION)	Sp	Sn	Rbe			Rbi			Va
					4"	5"	6"	4"	5"	6"	
20	2.94	2.791	1.020	1.129	900	977	1046	1097	1181	1258	2847
18	3.89	3.692	1.443	1.493	1515	1639	1752	1816	1949	2068	6429
16	4.91	4.655	1.859	1.882	2322	2506	2673	2756	2948	3122	10233
14	6.13	5.810	2.347	2.347	3487	3753	3994	4110	4384	4631	14726



LRFD DESIGN		MAXIMUM SUPERIMPOSED UNIFORM LRFD LOADS (psf)											
Span	Load Combinations	SINGLE SPAN				DOUBLE SPAN				TRIPLE SPAN			
		GAGE											
		20	18	16	14	20	18	16	14	20	18	16	14
11' - 0"	λ <sub>p</sub> D+λ <sub>L</sub> L (Strength)	160*	271*	383	400	88*	146*	221*	329*	100*	166*	252*	375*
	D+L (Deflection)	131	178	225	280	88	146	221	329	100	166	252	375
	L (Deflection)	89	121	153	191	88	146	221	329	100	166	252	360
12' - 0"	λ <sub>p</sub> D+λ <sub>L</sub> L (Strength)	146*	248*	321	400	80*	133*	202*	301*	92*	152*	231*	343*
	D+L (Deflection)	100	136	172	215	80	133	202	301	92	152	231	343
	L (Deflection)	69	93	118	147	80	133	202	301	92	152	222	277
13' - 0"	λ <sub>p</sub> D+λ <sub>L</sub> L (Strength)	135*	212	273	345	74*	123*	186*	278*	84*	140*	212*	316*
	D+L (Deflection)	78	106	134	168	74	123	186	278	84	140	212	316
	L (Deflection)	54	73	93	116	74	123	186	278	84	139	175	218
14' - 0"	λ <sub>p</sub> D+λ <sub>L</sub> L (Strength)	125*	182	234	296	68*	114*	173*	257*	78*	130*	197*	293*
	D+L (Deflection)	62	84	106	133	68	114	173	257	78	130	197	256
	L (Deflection)	43	59	74	93	68	114	173	223	78	111	140	175
15' - 0"	λ <sub>p</sub> D+λ <sub>L</sub> L (Strength)	111	158	203	257	64*	106*	161*	240*	73*	121*	183*	273*
	D+L (Deflection)	50	68	86	107	64	106	161	240	73	121	166	207
	L (Deflection)	35	48	60	75	64	106	145	181	68	90	114	142
16' - 0"	λ <sub>p</sub> D+λ <sub>L</sub> L (Strength)	97	138	178	225	59*	99*	150*	222*	68*	113*	171*	256*
	D+L (Deflection)	41	55	70	87	59	99	150	218	68	108	136	169
	L (Deflection)	29	39	50	62	59	95	120	149	56	74	94	117
17' - 0"	λ <sub>p</sub> D+λ <sub>L</sub> L (Strength)	86	122	157	198	56*	93*	141*	196*				
	D+L (Deflection)	33	45	57	72	56	93	141	181				
	L (Deflection)	24	33	41	52	56	79	100	125				
18' - 0"	λ <sub>p</sub> D+λ <sub>L</sub> L (Strength)	76	108	139	176	52*	87*	133*	174*				
	D+L (Deflection)	28	38	48	59	52	87	121	151				
	L (Deflection)	20	28	35	44	50	67	84	105				
19' - 0"	λ <sub>p</sub> D+λ <sub>L</sub> L (Strength)	68	97	125	157	49*	82*	125*	156*				
	D+L (Deflection)	23	31	40	49	49	81	102	128				
	L (Deflection)	17	23	30	37	43	57	72	89				
20' - 0"	λ <sub>p</sub> D+λ <sub>L</sub> L (Strength)	61	87	112	141	46*	78*	112*	140*				
	D+L (Deflection)	19	26	33	42	46	69	87	109				
	L (Deflection)	15	20	25	32	37	49	61	77				
21' - 0"	λ <sub>p</sub> D+λ <sub>L</sub> L (Strength)	55	78	101	127	42*	71*	101*	127*				
	D+L (Deflection)	15	21	27	33	42	56	71	88				
	L (Deflection)	13	17	22	27	32	42	53	66				
22' - 0"	λ <sub>p</sub> D+λ <sub>L</sub> L (Strength)	50	71	91	116	38*	64*	92*	115*				
	D+L (Deflection)	12	17	21	26	35	46	58	72				
	L (Deflection)	11	15	19	24	28	37	46	57				
23' - 0"	λ <sub>p</sub> D+λ <sub>L</sub> L (Strength)	45	64	83	105	34*	58*	84*	104*				
	D+L (Deflection)	10	13	17	21	29	38	48	60				
	L (Deflection)	10	13	17	21	24	32	40	50				
24' - 0"	λ <sub>p</sub> D+λ <sub>L</sub> L (Strength)	41	59	76	96	31*	53*	76*	95*				
	D+L (Deflection)	8	11	14	17	24	31	39	49				
	L (Deflection)	8	11	14	17	21	28	35	44				

11' - 0"	λ <sub>p</sub> D+λ <sub>L</sub> L (Strength)	160*	← Max. superimposed factored LRFD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	131	← Max. superimposed unfactored LRFD dead + live load (psf) (governed by deflection limitation of L/240 or 1")
	L (Deflection)	89	← 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<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  
 λ<sub>p</sub>, λ<sub>L</sub> 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, pif  
 Rbi Allowable interior web crippling value per foot of deck width, 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 allowable flexural stress of 38 ksi.
  - Loads marked with asterisk (\*) are governed by moment & shear, interior (6" bearing) and exterior (4" bearing) reactions (web crippling) or applied moment & reactions.
  - 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).