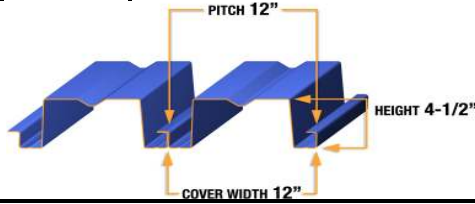


SECTION PROPERTIES $f_y = 40 \text{ ksi}$

GAGE	Wd	I _b (DEFLECTION)	Sp	Sn	Rbe			Rbi		Va
					4"	5"	6"	5"	6"	
20	3.14	2.962	1.099	1.181	900	977	1046	1628	1732	2847
18	4.15	3.954	1.560	1.611	1515	1639	1752	2700	2864	6429
16	5.23	4.982	2.005	2.030	2322	2506	2673	4100	4339	10233
14	6.53	6.215	2.531	2.531	3487	3753	3994	6118	6458	14726



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
11'-0"	$\lambda_D D + \lambda_L L$ (Strength)	160*	270*	400	400	122*	203*	309*	400*	139*	232*	352*	400*
	D+L (Deflection)	140	190	241	300	122	203	309	400	139	232	352	400
	L (Deflection)	96	130	164	204	122	203	309	400	139	232	309	385
12'-0"	$\lambda_D D + \lambda_L L$ (Strength)	146*	247*	347	400	112*	186*	283*	400*	127*	212*	322*	400*
	D+L (Deflection)	107	146	184	230	112	186	283	400	127	212	322	400
	L (Deflection)	74	100	126	157	112	186	283	379	127	189	238	297
13'-0"	$\lambda_D D + \lambda_L L$ (Strength)	135*	228*	294	372	103*	171*	261*	364*	117*	195*	297*	400*
	D+L (Deflection)	84	114	144	179	103	171	261	364	117	195	275	343
	L (Deflection)	58	79	99	124	103	171	239	298	111	148	187	233
14'-0"	$\lambda_D D + \lambda_L L$ (Strength)	125*	197	253	319	95*	159*	242*	313*	109*	181*	275*	390*
	D+L (Deflection)	67	90	114	142	95	159	242	313	109	174	219	274
	L (Deflection)	46	63	79	99	95	152	191	239	89	119	150	187
15'-0"	$\lambda_D D + \lambda_L L$ (Strength)	116*	171	220	277	89*	148*	217*	273*	101*	169*	257*	340*
	D+L (Deflection)	54	73	92	114	89	148	217	273	101	141	177	221
	L (Deflection)	38	51	65	81	89	123	156	194	72	97	122	152
16'-0"	$\lambda_D D + \lambda_L L$ (Strength)	105	149	192	243	83*	138*	191*	239*	95*	158*	238*	299*
	D+L (Deflection)	44	59	75	93	83	138	187	233	86	115	145	181
	L (Deflection)	31	42	53	66	76	102	128	160	60	80	100	125
17'-0"	$\lambda_D D + \lambda_L L$ (Strength)	93	132	170	214	78*	130*	169*	211*				
	D+L (Deflection)	36	49	61	77	78	123	155	193				
	L (Deflection)	26	35	44	55	64	85	107	133				
18'-0"	$\lambda_D D + \lambda_L L$ (Strength)	82	117	151	190	73*	118*	150*	188*				
	D+L (Deflection)	30	40	51	63	73	103	130	162				
	L (Deflection)	22	30	37	47	54	71	90	112				
19'-0"	$\lambda_D D + \lambda_L L$ (Strength)	73	104	134	170	66*	106*	134*	168*				
	D+L (Deflection)	25	34	42	53	65	87	110	137				
	L (Deflection)	19	25	32	40	46	61	77	95				
20'-0"	$\lambda_D D + \lambda_L L$ (Strength)	66	94	121	152	60*	95*	121*	151*				
	D+L (Deflection)	21	28	36	44	55	74	93	116				
	L (Deflection)	16	22	27	34	39	52	66	82				
21'-0"	$\lambda_D D + \lambda_L L$ (Strength)	59	85	109	138	54*	86*	109*	136*				
	D+L (Deflection)	17	22	28	35	45	60	76	94				
	L (Deflection)	14	19	24	29	34	45	57	71				
22'-0"	$\lambda_D D + \lambda_L L$ (Strength)	54	77	99	125	48*	78*	99*	124*				
	D+L (Deflection)	13	18	23	28	37	49	62	77				
	L (Deflection)	12	16	20	26	29	39	49	62				
23'-0"	$\lambda_D D + \lambda_L L$ (Strength)	49	70	90	113	44*	71*	90*	113*				
	D+L (Deflection)	11	14	18	23	30	41	51	64				
	L (Deflection)	10	14	18	22	26	34	43	54				
24'-0"	$\lambda_D D + \lambda_L L$ (Strength)	45	64	82	103	40*	65*	82*	103*				
	D+L (Deflection)	8	11	14	18	25	34	42	53				
	L (Deflection)	8	11	14	18	23	30	38	47				

11'-0"	$\lambda_D D + \lambda_L L$ (Strength)	160*	← Max. superimposed factored LRFD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	140	← Max. superimposed unfactored LRFD dead + live load (psf) (governed by deflection limitation)
	L (Deflection)	96	← 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_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, plf

Rbi Allowable interior web crippling value per foot of deck, 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 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.