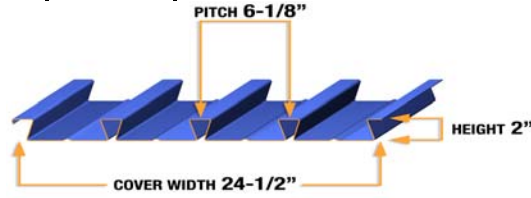


SECTION PROPERTIES $f_y = 40 \text{ ksi}$

GAGE	Wd	I_D (DEFLECTION)	Sp	Sn	Rbe			Rbi		Va
					2"	3"	4"	3"	4"	
22	2.23	0.407	0.288	0.281	1089	1254	1393	1891	2076	4482
20	2.71	0.495	0.361	0.347	1550	1777	1969	2693	2947	5414
18	3.58	0.658	0.483	0.484	2583	2942	3245	4493	4892	7107
16	4.51	0.832	0.614	0.617	3937	4461	4902	6862	7441	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"	$\lambda_D D + \lambda_L L$ (Strength)	98	123	165	210	95*	117*	164*	209*	119*	147*	206*	262*
	D+L (Deflection)	41	50	67	84	95	117	164	209	80	97	129	163
	L (Deflection)	29	35	47	59	70	85	113	143	55	66	88	112
9'-0"	$\lambda_D D + \lambda_L L$ (Strength)	87	110	147	187	85*	105*	146*	186*	106*	131*	183*	233*
	D+L (Deflection)	34	42	56	70	85	105	139	176	67	81	108	137
	L (Deflection)	24	30	39	50	59	72	95	120	46	56	74	94
9'-6"	$\lambda_D D + \lambda_L L$ (Strength)	78	98	131	167	76*	94*	131*	167*	95*	117*	164*	209*
	D+L (Deflection)	29	35	47	59	73	88	118	149	56	69	91	116
	L (Deflection)	21	25	34	42	50	61	81	102	39	48	63	80
10'-0"	$\lambda_D D + \lambda_L L$ (Strength)	70	88	118	150	68*	84*	118*	150*	86*	106*	148*	188*
	D+L (Deflection)	24	30	40	50	62	75	100	127	48	58	78	98
	L (Deflection)	18	22	29	36	43	52	69	88	34	41	54	69
10'-6"	$\lambda_D D + \lambda_L L$ (Strength)	63	80	107	136	62*	76*	106*	136*	78*	96*	134*	171*
	D+L (Deflection)	21	25	34	43	53	65	86	109	41	50	67	84
	L (Deflection)	15	19	25	31	37	45	60	76	29	35	47	59
11'-0"	$\lambda_D D + \lambda_L L$ (Strength)	58	72	97	123	56*	69*	97*	123*	70*	87*	122*	155*
	D+L (Deflection)	18	22	29	37	46	56	75	94	36	43	58	73
	L (Deflection)	13	16	22	27	32	39	52	66	25	31	41	52
11'-6"	$\lambda_D D + \lambda_L L$ (Strength)	52	66	88	112	51*	63*	88*	112*	64*	79*	111*	141*
	D+L (Deflection)	15	19	25	31	40	49	65	82	31	38	50	63
	L (Deflection)	12	14	19	24	28	34	46	58	22	27	36	45
12'-0"	$\lambda_D D + \lambda_L L$ (Strength)	48	60	81	103	47*	58*	81*	103*	59*	73*	102*	130*
	D+L (Deflection)	13	16	21	27	35	43	57	72	27	33	43	55
	L (Deflection)	10	13	17	21	25	30	40	51	19	24	31	40
12'-6"	$\lambda_D D + \lambda_L L$ (Strength)	44	55	74	94	43*	53*	74*	94*	54*	67*	93*	119*
	D+L (Deflection)	11	14	19	23	31	37	50	63	24	29	38	48
	L (Deflection)	9	11	15	19	22	27	35	45	17	21	28	35
13'-0"	$\lambda_D D + \lambda_L L$ (Strength)	40	51	68	87	39*	49*	68*	87*	50*	61*	86*	110*
	D+L (Deflection)	10	12	16	20	27	33	44	55	21	25	33	42
	L (Deflection)	8	10	13	17	19	24	32	40	15	19	25	31
13'-6"	$\lambda_D D + \lambda_L L$ (Strength)	37	47	63	80	36*	45*	63*	80*	46*	57*	79*	101*
	D+L (Deflection)	9	10	14	18	24	29	39	49	18	22	29	37
	L (Deflection)	7	9	12	15	17	21	28	36	14	17	22	28
14'-0"	$\lambda_D D + \lambda_L L$ (Strength)	35	43	58	74	34*	41*	58*	74*	43*	53*	74*	94*
	D+L (Deflection)	7	9	12	15	21	26	34	43	16	20	26	33
	L (Deflection)	6	8	10	13	16	19	25	32	12	15	20	25
14'-6"	$\lambda_D D + \lambda_L L$ (Strength)	32	40	54	69	31*	38*	54*	69*	40*	49*	68*	87*
	D+L (Deflection)	7	8	11	13	19	23	31	39	14	17	23	29
	L (Deflection)	6	7	9	12	14	17	23	29	11	13	18	23
15'-0"	$\lambda_D D + \lambda_L L$ (Strength)	30	37	50	64	29*	36*	50*	64*	37*	45*	64*	81*
	D+L (Deflection)	6	7	9	12	17	20	27	34	13	15	21	26
	L (Deflection)	5	6	9	11	13	15	21	26	10	12	16	20

8'-6"	$\lambda_D D + \lambda_L L$ (Strength)	98	← Max. superimposed factored LRFD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	41	← Max. superimposed unfactored LRFD dead + live load (psf) (governed by deflection limitation)
	L (Deflection)	29	← 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_D Moment of inertia for deflection per foot of deck width (in^4/ft)

Sp Section modulus for positive bending per foot of deck width, (in^3/ft)

Sn Section modulus for negative bending per foot of deck width, (in^3/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: 1. Bending strength based on flexural stress limit of 38 ksi.

2. Loads marked with asterisk (*) are governed by moment & shear, interior reactions (web crippling) or applied moment & reactions assuming 4" of interior bearing.

3. 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.

4. An upper limit of 400 psf has been applied to the loads.

5. 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.