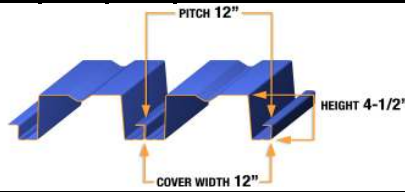


SECTION PROPERTIES fy=40 ksi

GAGE	Wd	Ip	In	Sp	Sn	Rbe			Rbi			Va
						4"	5"	6"	4"	5"	6"	
20	3.10	2.866	2.980	1.101	1.209	800	868	930	1336	1437	1528	2398
18	4.10	3.923	3.941	1.549	1.599	1347	1457	1557	2222	2382	2527	5414
16	5.17	4.966	4.966	1.991	2.014	2064	2228	2376	3386	3618	3828	8618
14	6.45	6.195	6.195	2.511	2.511	3099	3336	3550	5067	5398	5698	12401



LSD DESIGN		MAXIMUM SUPERIMPOSED UNIFORM LSD 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"	$\alpha_D D + \alpha_L L$ (Strength)	142*	240*	369*	400	107*	179*	272*	391**	122*	204*	310*	400*
	D+L (Deflection)	138	189	240	299	107	179	272	391	122	204	310	400
	L (Deflection)	94	129	163	204	107	179	272	391	122	204	308	384
12' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	129*	219*	325	400	98*	163*	240**	336**	112*	186*	284*	400**
	D+L (Deflection)	106	145	184	229	98	163	240	336	112	186	284	400
	L (Deflection)	73	99	126	157	98	163	240	336	112	186	237	296
13' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	119*	202*	276	349	90*	147**	210**	292**	103*	172*	256**	358**
	D+L (Deflection)	83	113	143	179	90	147	210	292	103	172	256	342
	L (Deflection)	57	78	99	123	90	147	210	292	103	147	186	233
14' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	110*	185	237	299	83**	129**	184**	256**	95*	158**	225**	314**
	D+L (Deflection)	65	90	114	142	83	129	184	256	95	158	219	273
	L (Deflection)	46	63	79	99	83	129	184	235	86	118	149	186
15' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	103*	160	206	260	74**	115**	163**	226**	89*	140**	200**	278**
	D+L (Deflection)	53	72	91	114	74	115	163	226	89	140	177	221
	L (Deflection)	37	51	64	80	74	115	153	191	70	96	121	151
16' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	96*	140	180	227	66**	103**	145**	201**	81**	126**	179**	248**
	D+L (Deflection)	43	59	74	93	66	103	145	201	81	114	145	181
	L (Deflection)	31	42	53	66	66	100	126	157	58	79	100	125
17' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	88	124	159	200	60**	92**	130**	179**				
	D+L (Deflection)	35	48	61	76	60	92	130	179				
	L (Deflection)	26	35	44	55	60	83	105	131				
18' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	78	110	141	178	54**	83**	117**	161**				
	D+L (Deflection)	29	40	51	63	54	83	117	159				
	L (Deflection)	22	29	37	46	51	70	89	111				
19' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	69	98	126	159	49**	75**	106**	145**				
	D+L (Deflection)	24	33	42	53	49	75	106	135				
	L (Deflection)	18	25	32	40	43	60	75	94				
20' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	62	88	113	143	45**	68**	96**	131**				
	D+L (Deflection)	20	28	36	44	45	68	92	114				
	L (Deflection)	16	21	27	34	37	51	65	81				
21' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	56	79	102	129	41**	62**	87**	119**				
	D+L (Deflection)	17	24	30	37	41	62	79	98				
	L (Deflection)	14	19	23	29	32	44	56	70				
22' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	51	72	92	116	38**	57**	80**	109**				
	D+L (Deflection)	15	20	25	32	38	53	68	84				
	L (Deflection)	12	16	20	25	28	38	49	61				
23' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	46	65	84	106	35**	52**	73**	100**				
	D+L (Deflection)	12	17	22	27	34	46	59	73				
	L (Deflection)	10	14	18	22	25	34	42	53				
24' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	42	59	77	97	32**	48**	67**	91**				
	D+L (Deflection)	11	15	18	23	29	40	51	63				
	L (Deflection)	9	12	16	20	22	30	37	47				

11' - 0"	$\alpha_D D + \alpha_L L$ (Strength)	142*	← Max. superimposed factored LSD dead + live load (psf) (governed by strength limitation)
	D+L (Deflection)	138	← Max. superimposed unfactored LSD dead + live load (psf) (governed by deflection limitation of L/240)
	L (Deflection)	94	← Max. superimposed unfactored LSD live load (psf) (governed by deflection limitation of L/360)
			← Vertical load span (center to center spacing)

- Wd** Weight of deck (uncoated), psf
Ip Moment of inertia for positive bending per foot of deck width, (in⁴)/ft
In Moment of inertia for negative bending 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
 α_D, α_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 width, plf
Rbi Allowable interior web crippling value per foot of deck width, 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 allowable flexural stress of 36 ksi.
 - Loads marked with asterisk (*) are governed by interior (6" bearing) or exterior (4" bearing) reactions (web crippling).
 - Loads marked with two asterisks (**) are governed by moment & shear or moment & reactions (web crippling) assuming 6" 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).

Loads are calculated in accordance with requirements of CSSBI 10M-06. *Standard for Steel Roof Deck*.

Acoustical profile is also available.