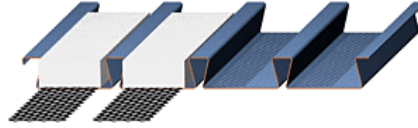


SECTION PROPERTIES

Fy = 276 MPa

GAGE	Wd	Ip	In	Sp	Sn	Rbe			Rbi			Va
						51 mm	76 mm	102 mm	102 mm	127 mm	152 mm	
22	10.00	520442	443003	15288	14341	14.13	16.26	18.07	26.73	28.82	30.72	55.08
20	12.13	634616	571856	19172	18090	20.11	23.06	25.54	37.95	40.82	43.43	66.53
18	16.04	846461	814777	25628	24907	33.50	38.16	42.09	63.00	67.53	71.63	87.34
16	20.20	1074170	1067902	32599	32210	51.08	57.86	63.58	95.82	102.40	108.34	109.17



LSD DESIGN		MAXIMUM SUPERIMPOSED UNIFORM LSD LOADS (kPa)											
Span (mm)	Load Combinations	SINGLE SPAN				DOUBLE SPAN				TRIPLE SPAN			
		GAGE											
		22	20	18	16	22	20	18	16	22	20	18	16
2590	$\alpha_D D + \alpha_L L$ (Strength)	4.40	5.52	7.39	9.40	3.93**	5.16**	7.1**	9.19**	4.9**	6.46**	8.89**	11.5**
	D+L (Deflection)	1.85	2.26	3.02	3.83	3.93	5.16	7.10	9.19	3.58	4.36	5.82	7.39
	L (Deflection)	1.30	1.59	2.12	2.68	3.09	3.77	5.03	6.38	2.45	2.99	3.99	5.06
2740	$\alpha_D D + \alpha_L L$ (Strength)	3.91	4.91	6.57	8.35	3.52**	4.59**	6.32**	8.18**	4.39**	5.75**	7.92**	10.24**
	D+L (Deflection)	1.55	1.89	2.52	3.19	3.52	4.59	6.20	7.87	3.00	3.66	4.88	6.19
	L (Deflection)	1.10	1.34	1.78	2.26	2.60	3.18	4.24	5.38	2.06	2.52	3.36	4.26
2890	$\alpha_D D + \alpha_L L$ (Strength)	3.50	4.39	5.87	7.47	3.16**	4.11**	5.66**	7.32**	3.96**	5.16**	7.1**	9.18**
	D+L (Deflection)	1.30	1.59	2.12	2.69	3.16	3.93	5.25	6.66	2.53	3.09	4.12	5.24
	L (Deflection)	0.93	1.14	1.52	1.92	2.21	2.70	3.60	4.57	1.76	2.14	2.85	3.62
3040	$\alpha_D D + \alpha_L L$ (Strength)	3.14	3.95	5.28	6.72	2.85**	3.69**	5.09**	6.59**	3.58**	4.64**	6.39**	8.27**
	D+L (Deflection)	1.10	1.34	1.79	2.27	2.75	3.35	4.48	5.68	2.16	2.63	3.51	4.46
	L (Deflection)	0.80	0.97	1.30	1.65	1.90	2.32	3.09	3.92	1.50	1.83	2.45	3.11
3200	$\alpha_D D + \alpha_L L$ (Strength)	2.84	3.57	4.77	6.07	2.58**	3.34**	4.6**	5.96**	3.25**	4.2**	5.79**	7.49**
	D+L (Deflection)	0.94	1.14	1.53	1.94	2.36	2.88	3.84	4.88	1.85	2.26	3.01	3.83
	L (Deflection)	0.69	0.84	1.12	1.42	1.64	2.00	2.67	3.39	1.30	1.58	2.11	2.68
3350	$\alpha_D D + \alpha_L L$ (Strength)	2.58	3.24	4.33	5.51	2.35**	3.03**	4.18**	5.41**	2.96**	3.82**	5.26**	6.8**
	D+L (Deflection)	0.80	0.98	1.31	1.66	2.04	2.49	3.32	4.22	1.60	1.95	2.60	3.30
	L (Deflection)	0.60	0.73	0.98	1.24	1.43	1.74	2.32	2.94	1.13	1.38	1.84	2.33
3500	$\alpha_D D + \alpha_L L$ (Strength)	2.35	2.95	3.95	5.02	2.15**	2.76**	3.81**	4.93**	2.71**	3.48**	4.8**	6.21**
	D+L (Deflection)	0.69	0.84	1.12	1.43	1.77	2.16	2.89	3.67	1.39	1.69	2.26	2.86
	L (Deflection)	0.53	0.64	0.85	1.08	1.25	1.52	2.03	2.58	0.99	1.21	1.61	2.04
3650	$\alpha_D D + \alpha_L L$ (Strength)	2.15	2.70	3.61	4.59	1.97**	2.53**	3.48**	4.51**	2.48**	3.19**	4.39**	5.69**
	D+L (Deflection)	0.60	0.73	0.97	1.23	1.55	1.89	2.52	3.20	1.21	1.47	1.97	2.50
	L (Deflection)	0.46	0.56	0.75	0.95	1.10	1.34	1.79	2.27	0.87	1.06	1.42	1.80
3800	$\alpha_D D + \alpha_L L$ (Strength)	1.97	2.47	3.31	4.21	1.8**	2.32**	3.2**	4.14**	2.28**	2.93**	4.04**	5.22**
	D+L (Deflection)	0.52	0.63	0.84	1.07	1.36	1.66	2.21	2.81	1.06	1.29	1.72	2.19
	L (Deflection)	0.41	0.50	0.67	0.84	0.97	1.19	1.58	2.01	0.77	0.94	1.25	1.59
3960	$\alpha_D D + \alpha_L L$ (Strength)	1.81	2.28	3.04	3.88	1.66**	2.13**	2.94**	3.81**	2.11**	2.7**	3.72**	4.81**
	D+L (Deflection)	0.45	0.55	0.73	0.93	1.20	1.46	1.95	2.48	0.93	1.13	1.51	1.92
	L (Deflection)	0.36	0.44	0.59	0.75	0.86	1.05	1.41	1.78	0.68	0.84	1.11	1.41
4110	$\alpha_D D + \alpha_L L$ (Strength)	1.67	2.10	2.81	3.58	1.53**	1.97**	2.71**	3.52**	1.95**	2.49**	3.44**	4.45**
	D+L (Deflection)	0.39	0.47	0.63	0.81	1.06	1.29	1.73	2.19	0.82	1.00	1.33	1.70
	L (Deflection)	0.32	0.40	0.53	0.67	0.77	0.94	1.26	1.59	0.61	0.75	0.99	1.26
4260	$\alpha_D D + \alpha_L L$ (Strength)	1.54	1.94	2.60	3.31	1.42**	1.82**	2.51**	3.25**	1.8**	2.31**	3.18**	4.12**
	D+L (Deflection)	0.34	0.41	0.55	0.70	0.94	1.15	1.53	1.94	0.72	0.88	1.18	1.50
	L (Deflection)	0.29	0.35	0.47	0.60	0.69	0.84	1.13	1.43	0.55	0.67	0.89	1.13
4410	$\alpha_D D + \alpha_L L$ (Strength)	1.43	1.80	2.41	3.07	1.31**	1.69**	2.33**	3.02**	1.68**	2.14**	2.95**	3.83**
	D+L (Deflection)	0.29	0.36	0.48	0.61	0.84	1.02	1.36	1.73	0.64	0.78	1.05	1.33
	L (Deflection)	0.26	0.32	0.43	0.54	0.62	0.76	1.01	1.29	0.49	0.60	0.80	1.02
4570	$\alpha_D D + \alpha_L L$ (Strength)	1.33	1.67	2.24	2.85	1.22**	1.57**	2.16**	2.8**	1.56**	1.99**	2.75**	3.56**
	D+L (Deflection)	0.26	0.31	0.42	0.53	0.75	0.91	1.22	1.54	0.57	0.70	0.93	1.18
	L (Deflection)	0.24	0.29	0.38	0.49	0.56	0.69	0.92	1.16	0.45	0.54	0.73	0.92

2590	$\alpha_D D + \alpha_L L$ (Strength)	4.40	← Max. superimposed factored LSD dead + live load (kPa) (governed by strength limitation)
	D+L (Deflection)	1.85	← Max. superimposed unfactored LSD dead + live load (kPa) (governed by deflection limitation of L/240)
	L (Deflection)	1.30	← Max. superimposed unfactored LSD live load (kPa) (governed by deflection limitation of L/360)
			← Vertical load span (center to center spacing)

Wd Weight of deck (uncoated), kg/m²

Ip

In

Sp

Sn

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, kN/in

Rbi Allowable interior web crippling value per foot of deck width, kN/in

Va Allowable shear value per foot of deck width, kN/m

D Uniform dead load, kPa

L Uniform live load, kPa

Notes: 1. Bending strength based on allowable flexural stress of 248 MPa.

2. Loads marked with asterisk (*) are governed by interior reactions (web crippling) assuming 102 mm of interior bearing.

3. Loads marked with two asterisks (**) are governed by moment & shear or moment & reactions (web crippling) assuming 102 mm of interior bearing.

4. An upper limit of 19.15 kPa has been applied to the loads.

5. Deck length over 13.72 m 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.