

Section Properties

(Per Foot of Width)

Base Steel Thickness (in.)	Weight G90 (psf)	Yield Stress (ksi)	Section Modulus		Deflection Moment of Inertia Mid Span (in ⁴)	Specified Web Crippling Data (lb)			
			Mid Span (in ³)	Support (in ³)		End Pe1	End Pe2	Interior Pi1	Interior Pi2
0.0120	0.64	33	0.0108	0.0091	0.0078	13.5	3.37	20.8	3.53
0.0135	0.71	80	0.0121	0.0099	0.0088	31.6	7.89	49.7	8.45
0.0180	0.93	33	0.0161	0.0144	0.0117	33.0	8.26	54.1	9.19
0.0240	1.22	33	0.0213	0.0199	0.0155	61.8	15.5	104	17.7

Live Load Factor = 1.5; Importance Factor (I_{W-SLS}) = 0.90; Importance Factor (I_{W-ULS}) = 0.80

Load Table

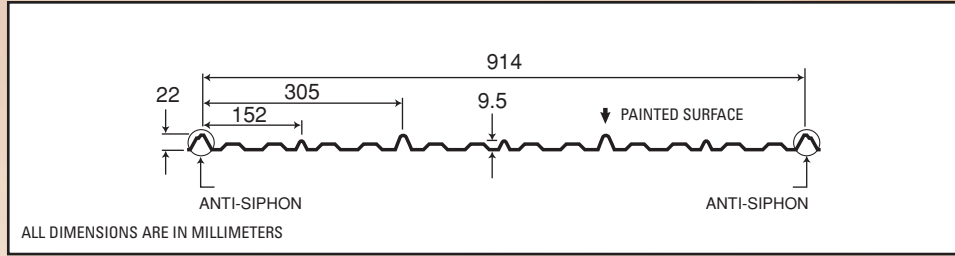
Maximum Specified Uniformly Distributed Loads in psf

Span (in.)		1-Span Base Steel Thickness (in.)				2-Span Base Steel Thickness (in.)				3-Span Base Steel Thickness (in.)			
		0.0120	0.0135	0.0180	0.0240	0.0120	0.0135	0.0180	0.0240	0.0120	0.0135	0.0180	0.0240
16	S	100	203	149	197	84	165	133	184	105	206	166	230
	D	320	360	479	636	769	864	1149	1526	606	681	905	1202
20	S	64	130	96	126	54	105	85	118	67	132	106	147
	D	164	184	245	326	394	443	588	781	310	349	463	615
24	S	45	90	66	88	37	73	59	82	47	91	74	102
	D	95	107	142	188	228	256	340	452	179	202	268	356
30	S	29	58	42	56	24	47	38	52	30	59	47	65
	D	49	55	73	96	117	131	174	231	92	103	137	182
36	S	20	40	29	39	17	33	26	36	21	41	33	45
	D	28	32	42	56	68	76	101	134	53	60	79	105
42	S	15	29	22	29	12	24	19	27	15	30	24	33
	D	18	20	26	35	43	48	64	84	33	38	50	66
48	S	11	23	17	22		18	15	20	12	23	18	26
	D	12	13	18	24		32	43	57	22	25	34	45
54	S			13	17		14	12	16		18	15	20
	D			12	17		22	30	40		18	24	31
60	S				14		12		13		15	12	16
	D				12		16		29		13	17	23
66	S								11				14
	D								22				17
72	S												11
	D												13

Notes:

- Steel conforms to ASTM A653.
- Section properties are in accordance with CSA-S136-07.
- Values in row "S" are based on strength.
- Values in row "D" are based on a deflection limit of 1/180 of the span.
- Web crippling not included in strength values. See example calculation in notes to designer.
- Contact the sales department for stocked colours and gauges.
- The load table contained on this data sheet was prepared by Dr. R.M. Schuster P.Eng. Professor Emeritus of Structural Engineering, University of Waterloo, Ontario, Canada.





Section Properties

(Per Metre of Width)

Base Steel Thickness (mm)	Mass Z275 (kg/m ²)	Yield Stress (MPa)	Section Modulus		Deflection Moment of Inertia Mid Span (x 10 ⁶ mm ⁴)	Specified Web Crippling Data (kN)			
			Mid Span (x 10 ³ mm ³)	Support (x 10 ³ mm ³)		End Pe1	End Pe2	Interior Pi1	Interior Pi2
0.305	3.11	230	0.581	0.487	0.0102	0.199	0.050	0.307	0.052
0.343	3.46	550	0.653	0.530	0.0115	0.461	0.115	0.726	0.123
0.457	4.52	230	0.865	0.775	0.0153	0.488	0.122	0.798	0.136
0.610	5.94	230	1.14	1.07	0.0204	0.912	0.228	1.53	0.261

Load Table

Live Load Factor = 1.5; Importance Factor (I_{W-SLS}) = 0.90; Importance Factor (I_{W-ULS}) = 0.80

Maximum Specified Uniformly Distributed Loads in kPa

Span (mm)		1-Span Base Steel Thickness (mm)				2-Span Base Steel Thickness (mm)				3-Span Base Steel Thickness (mm)			
		0.305	0.343	0.457	0.610	0.305	0.343	0.457	0.610	0.305	0.343	0.457	0.610
400	S	5.01	10.0	7.46	9.86	4.20	8.14	6.68	9.20	5.24	10.2	8.34	11.5
	D	15.4	17.3	23.0	30.6	36.9	41.5	55.3	73.5	29.1	32.7	43.5	57.9
500	S	3.21	6.42	4.77	6.31	2.68	5.21	4.27	5.89	3.36	6.52	5.34	7.36
	D	7.87	8.85	11.8	15.7	18.9	21.2	28.3	37.7	14.9	16.7	22.3	29.7
600	S	2.23	4.46	3.31	4.38	1.86	3.62	2.97	4.09	2.33	4.52	3.71	5.11
	D	4.55	5.12	6.82	9.08	10.9	12.3	16.4	21.8	8.61	9.68	12.9	17.2
700	S	1.64	3.28	2.44	3.22	1.37	2.66	2.18	3.00	1.71	3.32	2.72	3.75
	D	2.87	3.23	4.30	5.72	6.88	7.74	10.3	13.7	5.42	6.10	8.12	10.8
800	S	1.25	2.51	1.86	2.46	1.05	2.04	1.67	2.30	1.31	2.55	2.09	2.87
	D	1.92	2.16	2.88	3.83	4.61	5.19	6.91	9.19	3.63	4.08	5.44	7.24
900	S	0.99	1.98	1.47	1.95	0.83	1.61	1.32	1.82	1.04	2.01	1.65	2.27
	D	1.35	1.52	2.02	2.69	3.24	3.64	4.85	6.46	2.55	2.87	3.82	5.08
1000	S	0.80	1.61	1.19	1.58	0.67	1.30	1.07	1.47	0.84	1.63	1.34	1.84
	D	0.98	1.11	1.47	1.96	2.36	2.66	3.54	4.71	1.86	2.09	2.78	3.71
1200	S	0.56	1.12	0.83	1.10	0.90	0.74	1.02		0.58	1.13	0.93	1.28
	D	0.57	0.64	0.85	1.13	1.54	2.05	2.72		1.08	1.21	1.61	2.14
1400	S			0.61	0.80	0.66	0.54	0.75		0.83	0.68	0.94	
	D			0.54	0.71	0.97	1.29	1.72		0.76	1.01	1.35	
1600	S					0.51		0.57		0.64	0.52	0.72	
	D					0.65		1.15		0.51	0.68	0.90	
1800	S											0.57	
	D											0.64	

Notes:

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