

**SECTION PROPERTIES (PER METRE OF WIDTH)**

METRIC	Base Steel Thickness (mm)	Coated Steel Thickness (Z275) (mm)	Coated Mass (kg/m <sup>2</sup> )	Sec. Modulus		Deflection Moment of Inertia (10 <sup>6</sup> mm <sup>4</sup> )	Specified Web Crippling Data			
				Midspan	Support		P <sub>e1</sub> End (kN)	P <sub>e2</sub> End (kN)	P <sub>i1</sub> Interior (kN)	P <sub>i2</sub> Interior (kN)
				(10 <sup>3</sup> mm <sup>3</sup> )	(10 <sup>3</sup> mm <sup>3</sup> )					
	0.610	0.650	7.57	17.5	17.5	0.775	0.733	0.183	1.46	0.249
	0.762	0.802	9.39	23.6	23.6	1.01	1.21	0.302	2.39	0.407
	0.914	0.954	11.2	30.0	30.2	1.26	1.80	0.451	3.56	0.605
	1.22	1.26	14.9	43.0	42.9	1.67	3.37	0.843	6.61	1.12

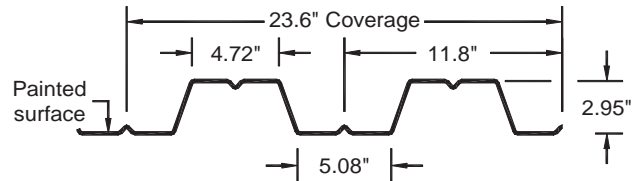
**MAXIMUM UNIFORMLY DISTRIBUTED SPECIFIED LOAD (kPa)**

SPAN LENGTH (m)		1-SPAN				2-SPAN				3-SPAN			
		BASE STEEL THICKNESS (mm)				BASE STEEL THICKNESS (mm)				BASE STEEL THICKNESS (mm)			
		0.610	0.762	0.914	1.22	0.610	0.762	0.914	1.22	0.610	0.762	0.914	1.22
1.5	S	8.59	11.6	14.7	21.1	8.58	11.6	14.8	21.0	10.7	14.5	18.5	26.3
	D	19.9	26.0	32.2	42.9	47.7	62.4	77.3	103	37.6	49.1	60.9	81.1
1.6	S	7.55	10.2	12.9	18.5	7.54	10.2	13.0	18.5	9.42	12.7	16.3	23.1
	D	16.4	21.4	26.5	35.3	39.3	51.4	63.7	84.8	31.0	40.5	50.2	66.8
1.8	S	5.96	8.03	10.2	14.6	5.96	8.04	10.3	14.6	7.44	10.1	12.9	18.2
	D	11.5	15.0	18.6	24.8	27.6	36.1	44.7	59.6	21.7	28.4	35.2	46.9
2.0	S	4.83	6.50	8.27	11.9	4.82	6.51	8.33	11.8	6.03	8.14	10.4	14.8
	D	8.39	11.0	13.6	18.1	20.1	26.3	32.6	43.4	15.9	20.7	25.7	34.2
2.2	S	3.99	5.37	6.84	9.80	3.99	5.38	6.88	9.77	4.98	6.73	8.60	12.2
	D	6.30	8.24	10.2	13.6	15.1	19.8	24.5	32.6	11.9	15.6	19.3	25.7
2.4	S	3.36	4.51	5.75	8.23	3.35	4.52	5.78	8.21	4.19	5.66	7.23	10.3
	D	4.85	6.35	7.86	10.5	11.7	15.2	18.9	25.1	9.17	12.0	14.9	19.8
2.5	S	3.09	4.16	5.30	7.59	3.09	4.17	5.33	7.57	3.86	5.21	6.66	9.46
	D	4.29	5.61	6.96	9.26	10.3	13.5	16.7	22.2	8.11	10.6	13.2	17.5
2.6	S	2.86	3.85	4.90	7.02	2.85	3.85	4.93	7.00	3.57	4.82	6.16	8.74
	D	3.82	4.99	6.19	8.23	9.16	12.0	14.8	19.8	7.21	9.43	11.7	15.6
2.8	S	2.46	3.32	4.22	6.05	2.46	3.32	4.25	6.03	3.08	4.15	5.31	7.54
	D	3.06	4.00	4.95	6.59	7.33	9.59	11.9	15.8	5.78	7.55	9.36	12.5
3.0	S	2.15	2.89	3.68	5.27	2.14	2.90	3.70	5.25	2.68	3.62	4.63	6.57
	D	2.48	3.25	4.03	5.36	5.96	7.80	9.66	12.9	4.70	6.14	7.61	10.1
3.2	S	1.89	2.54	3.23	4.63	1.88	2.54	3.25	4.62	2.36	3.18	4.07	5.77
	D	2.05	2.68	3.32	4.42	4.91	6.43	7.96	10.6	3.87	5.06	6.27	8.35
3.4	S	1.67	2.25	2.86	4.10	1.67	2.25	2.88	4.09	2.09	2.82	3.60	5.11
	D	1.71	2.23	2.77	3.68	4.10	5.36	6.64	8.84	3.23	4.22	5.23	6.96
3.5	S	1.58	2.12	2.70	3.87	1.58	2.13	2.72	3.86	1.97	2.66	3.40	4.83
	D	1.56	2.05	2.54	3.38	3.76	4.91	6.09	8.10	2.96	3.87	4.79	6.38
3.6	S	1.49	2.01	2.55	3.66	1.49	2.01	2.57	3.65	1.86	2.51	3.21	4.56
	D	1.44	1.88	2.33	3.10	3.45	4.51	5.59	7.45	2.72	3.55	4.40	5.86
3.8	S	1.34	1.80	2.29	3.28	1.34	1.80	2.31	3.27	1.67	2.26	2.88	4.09
	D	1.22	1.60	1.98	2.64	2.93	3.84	4.75	6.33	2.31	3.02	3.74	4.99
4.0	S	1.21	1.63	2.07	2.96	1.21	1.63	2.08	2.96	1.51	2.04	2.60	3.69
	D	1.05	1.37	1.70	2.26	2.52	3.29	4.08	5.43	1.98	2.59	3.21	4.27

- Notes:**
- 1 Based on ASTM A 653 Grade 230 structural steel.
  - 2 Values in row "S" are based on strength.
  - 3 Values in row "D" are based on deflection of 1/180th span.
  - 4 Web crippling not included in strength calculations. See Example.

Limit States Design principles were used in accordance with CSA Standard S136-01





**SECTION PROPERTIES (PER FOOT OF WIDTH)**

IMPERIAL	Base Steel Thickness (in.)	Coated Steel Thickness (G90) (in.)	Coated Weight (psf)	Sec. Modulus		Deflection Moment of Inertia (in. <sup>4</sup> )	Specified Web Crippling Data			
				Midspan	Support		P <sub>e1</sub> End (lb)	P <sub>e2</sub> End (lb)	P <sub>i1</sub> Interior (lb)	P <sub>i2</sub> Interior (lb)
				(in. <sup>3</sup> )	(in. <sup>3</sup> )					
	0.024	0.0255	1.55	0.326	0.326	0.568	49.7	12.4	99.2	16.9
	0.030	0.0315	1.92	0.439	0.440	0.743	81.8	20.4	162	27.6
	0.036	0.0375	2.30	0.559	0.562	0.920	122	30.6	241	41.0
	0.048	0.0495	3.04	0.800	0.798	1.23	229	57.2	448	76.1

**MAXIMUM UNIFORMLY DISTRIBUTED SPECIFIED LOAD (PSF)**

SPAN LENGTH (ft)		1-SPAN				2-SPAN				3-SPAN			
		BASE STEEL THICKNESS (inches)				BASE STEEL THICKNESS (inches)				BASE STEEL THICKNESS (inches)			
		0.024	0.030	0.036	0.048	0.024	0.030	0.036	0.048	0.024	0.030	0.036	0.048
5.0	S	172	232	295	422	172	232	297	420	215	290	371	525
	D	397	519	642	855	952	1245	1541	2052	750	980	1214	1616
5.5	S	142	192	244	349	142	192	245	347	178	240	307	434
	D	298	390	483	642	715	935	1158	1542	563	736	912	1214
6.0	S	120	161	205	293	119	161	206	292	149	202	258	365
	D	230	300	372	495	551	720	892	1188	434	567	703	935
6.5	S	102	137	175	250	102	137	176	249	127	172	220	311
	D	181	236	292	389	433	567	702	934	341	446	553	736
7.0	S	88	118	151	216	88	119	151	214	110	148	189	268
	D	145	189	234	312	347	454	562	748	273	357	442	589
7.5	S	77	103	131	188	76	103	132	187	96	129	165	233
	D	118	154	190	253	282	369	457	608	222	290	360	479
8.0	S	67	91	115	165	67	91	116	164	84	113	145	205
	D	97	127	157	209	232	304	376	501	183	239	296	395
8.5	S	60	80	102	146	60	80	103	145	74	101	128	182
	D	81	106	131	174	194	253	314	418	153	199	247	329
9.0	S	53	72	91	130	53	72	92	130	66	90	115	162
	D	68	89	110	147	163	213	264	352	129	168	208	277
9.5	S	48	64	82	117	48	64	82	116	60	80	103	146
	D	58	76	94	125	139	181	225	299	109	143	177	236
10.0	S	43	58	74	106	43	58	74	105	54	73	93	131
	D	50	65	80	107	119	156	193	257	94	123	152	202
10.5	S	39	53	67	96	39	53	67	95	49	66	84	119
	D	43	56	69	92	103	134	166	222	81	106	131	174
11.0	S	36	48	61	87	36	48	61	87	44	60	77	109
	D	37	49	60	80	89	117	145	193	70	92	114	152
11.5	S	33	44	56	80	33	44	56	79	41	55	70	99
	D	33	43	53	70	78	102	127	169	62	81	100	133
12.0	S	30	40	51	73	30	40	52	73	37	50	64	91
	D	29	38	46	62	69	90	112	148	54	71	88	117
12.5	S	28	37	47	68	28	37	48	67	34	46	59	84
	D	25	33	41	55	61	80	99	131	48	63	78	103
13.0	S	25	34	44	62	25	34	44	62	32	43	55	78
	D	23	30	37	49	54	71	88	117	43	56	69	92

- Notes:**
- 1 Based on ASTM A 653 Grade 33 structural steel.
  - 2 Values in row "S" are based on strength.
  - 3 Values in row "D" are based on deflection of 1/180th span.
  - 4 Web crippling not included in strength calculations. See Example.

Limit States Design principles were used in accordance with CSA Standard S136-01

