

SECTION PROPERTIES (PER METRE OF WIDTH)

METRIC	Base Steel Thickness (mm)	Coated Steel Thickness (Z275) (mm)	Coated Mass (kg/m ²)	Sec. Modulus		Deflection Moment of Inertia (10 ⁶ mm ⁴)	Specified Web Crippling Data			
				Midspan	Support		P _{e1} End (kN)	P _{e2} End (kN)	P _{i1} Interior (kN)	P _{i2} Interior (kN)
				(10 ³ mm ³)	(10 ³ mm ³)					
	0.457	0.497	5.14	4.88	5.10	0.118	0.904	0.226	1.72	0.293
	0.610	0.650	6.76	7.39	7.55	0.179	1.70	0.424	3.22	0.548
	0.762	0.802	8.38	10.3	10.2	0.239	2.74	0.686	5.21	0.886
	0.914	0.954	10.0	12.6	13.0	0.300	4.05	1.01	7.69	1.31
	1.22	1.26	13.2	17.2	17.7	0.414	7.46	1.87	14.1	2.40

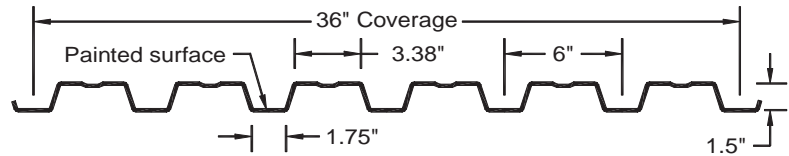
MAXIMUM UNIFORMLY DISTRIBUTED SPECIFIED LOAD (kPa)

SPAN LENGTH (m)		1-SPAN															2-SPAN					3-SPAN				
		BASE STEEL THICKNESS (mm)					BASE STEEL THICKNESS (mm)					BASE STEEL THICKNESS (mm)					BASE STEEL THICKNESS (mm)									
		0.457	0.610	0.762	0.914	1.22	0.457	0.610	0.762	0.914	1.22	0.457	0.610	0.762	0.914	1.22										
1.0	S	5.39	8.16	11.3	13.9	19.0	5.64	8.33	11.3	14.4	19.5	7.04	10.4	14.1	17.9	24.4										
	D	10.2	15.5	20.7	26.0	35.9	24.5	37.2	49.8	62.4	86.1	19.3	29.3	39.2	49.1	67.8										
1.2	S	3.74	5.66	7.86	9.67	13.2	3.91	5.79	7.83	10.0	13.5	4.89	7.23	9.79	12.5	16.9										
	D	5.92	8.97	12.0	15.0	20.8	14.2	21.5	28.8	36.1	49.8	11.2	17.0	22.7	28.4	39.2										
1.4	S	2.75	4.16	5.78	7.10	9.67	2.88	4.25	5.75	7.32	9.94	3.59	5.32	7.19	9.15	12.4										
	D	3.73	5.65	7.56	9.47	13.1	8.94	13.6	18.1	22.7	31.4	7.04	10.7	14.3	17.9	24.7										
1.6	S	2.10	3.19	4.42	5.44	7.40	2.20	3.26	4.40	5.60	7.61	2.75	4.07	5.50	7.01	9.51										
	D	2.50	3.78	5.06	6.34	8.76	5.99	9.08	12.2	15.2	21.0	4.72	7.15	9.57	12.0	16.6										
1.8	S	1.66	2.52	3.50	4.30	5.85	1.74	2.57	3.48	4.43	6.01	2.17	3.22	4.35	5.54	7.52										
	D	1.75	2.66	3.56	4.45	6.15	4.21	6.38	8.53	10.7	14.8	3.31	5.02	6.72	8.42	11.6										
2.0	S	1.35	2.04	2.83	3.48	4.74	1.41	2.08	2.82	3.59	4.87	1.76	2.60	3.52	4.48	6.09										
	D	1.28	1.94	2.59	3.25	4.48	3.07	4.65	6.22	7.79	10.8	2.42	3.66	4.90	6.14	8.47										
2.2	S	1.11	1.69	2.34	2.88	3.91	1.16	1.72	2.33	2.96	4.03	1.46	2.15	2.91	3.71	5.03										
	D	0.96	1.46	1.95	2.44	3.37	2.30	3.49	4.67	5.86	8.08	1.82	2.75	3.68	4.61	6.37										
2.4	S	0.94	1.42	1.97	2.42	3.29	0.98	1.45	1.96	2.49	3.38	1.22	1.81	2.45	3.11	4.23										
	D	0.74	1.12	1.50	1.88	2.59	1.78	2.69	3.60	4.51	6.23	1.40	2.12	2.83	3.55	4.90										
2.6	S	0.80	1.21	1.68	2.06	2.80	0.83	1.23	1.67	2.12	2.88	1.04	1.54	2.08	2.65	3.60										
	D	0.58	0.88	1.18	1.48	2.04	1.40	2.12	2.83	3.55	4.90	1.10	1.67	2.23	2.79	3.86										
2.8	S	0.69	1.04	1.44	1.78	2.42	0.72	1.06	1.44	1.83	2.49	0.90	1.33	1.80	2.29	3.11										
	D	0.47	0.71	0.94	1.18	1.63	1.12	1.69	2.27	2.84	3.92	0.88	1.33	1.79	2.24	3.09										
3.0	S	0.60	0.91	1.26	1.55	2.11	0.63	0.93	1.25	1.59	2.17	0.78	1.16	1.57	1.99	2.71										
	D	0.38	0.57	0.77	0.96	1.33	0.91	1.38	1.84	2.31	3.19	0.72	1.08	1.45	1.82	2.51										
3.2	S	0.53	0.80	1.11	1.36	1.85	0.55	0.81	1.10	1.40	1.90	0.69	1.02	1.38	1.75	2.38										
	D	0.31	0.47	0.63	0.79	1.09	0.75	1.14	1.52	1.90	2.63	0.59	0.89	1.20	1.50	2.07										
3.4	S	0.47	0.71	0.98	1.20	1.64	0.49	0.72	0.98	1.24	1.69	0.61	0.90	1.22	1.55	2.11										
	D	0.26	0.39	0.53	0.66	0.91	0.62	0.95	1.27	1.59	2.19	0.49	0.75	1.00	1.25	1.72										
3.6	S	0.42	0.63	0.87	1.07	1.46	0.43	0.64	0.87	1.11	1.50	0.54	0.80	1.09	1.38	1.88										
	D	0.22	0.33	0.44	0.56	0.77	0.53	0.80	1.07	1.34	1.85	0.41	0.63	0.84	1.05	1.45										
3.8	S	0.37	0.56	0.78	0.96	1.31	0.39	0.58	0.78	0.99	1.35	0.49	0.72	0.98	1.24	1.69										
	D	0.19	0.28	0.38	0.47	0.65	0.45	0.68	0.91	1.14	1.57	0.35	0.53	0.71	0.89	1.24										
4.0	S	0.34	0.51	0.71	0.87	1.18	0.35	0.52	0.70	0.90	1.22	0.44	0.65	0.88	1.12	1.52										
	D	0.16	0.24	0.32	0.41	0.56	0.38	0.58	0.78	0.97	1.35	0.30	0.46	0.61	0.77	1.06										

- 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. ⁴)	Specified Web Crippling Data			
				Midspan	Support		P _{e1} End (lb)	P _{e2} End (lb)	P _{i1} Interior (lb)	P _{i2} Interior (lb)
				(in. ³)	(in. ³)					
	0.018	0.0195	1.05	0.0910	0.0951	0.0866	61.3	15.3	117	19.8
	0.024	0.0255	1.38	0.138	0.141	0.131	115	28.7	219	37.1
	0.030	0.0315	1.72	0.191	0.190	0.176	186	46.5	353	60.1
	0.036	0.0375	2.05	0.235	0.242	0.220	275	68.6	521	88.6
	0.048	0.0495	2.71	0.319	0.328	0.303	506	126	959	163

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)				
		0.018	0.024	0.030	0.036	0.048	0.018	0.024	0.030	0.036	0.048	0.018	0.024	0.030	0.036	0.048
3.0	S	133	202	281	344	468	140	206	279	355	481	174	258	349	444	602
	D	280	424	567	711	980	672	1017	1361	1705	2352	529	801	1072	1343	1852
3.5	S	98	148	206	253	344	103	152	205	261	354	128	190	256	326	442
	D	176	267	357	447	617	423	641	857	1074	1481	333	505	675	846	1166
4.0	S	75	114	158	194	263	78	116	157	200	271	98	145	196	250	339
	D	118	179	239	300	413	283	429	574	719	992	223	338	452	567	781
4.5	S	59	90	125	153	208	62	92	124	158	214	78	115	155	197	267
	D	83	126	168	211	290	199	301	403	505	697	157	237	318	398	549
5.0	S	48	73	101	124	169	50	74	100	128	173	63	93	126	160	217
	D	60	92	122	153	212	145	220	294	368	508	114	173	232	290	400
5.5	S	40	60	83	102	139	42	61	83	106	143	52	77	104	132	179
	D	45	69	92	115	159	109	165	221	277	382	86	130	174	218	301
6.0	S	33	51	70	86	117	35	52	70	89	120	44	64	87	111	150
	D	35	53	71	89	123	84	127	170	213	294	66	100	134	168	232
6.5	S	28	43	60	73	100	30	44	59	76	103	37	55	74	95	128
	D	28	42	56	70	96	66	100	134	168	231	52	79	105	132	182
7.0	S	25	37	52	63	86	26	38	51	65	88	32	47	64	82	111
	D	22	33	45	56	77	53	80	107	134	185	42	63	84	106	146
7.5	S	21	32	45	55	75	22	33	45	57	77	28	41	56	71	96
	D	18	27	36	45	63	43	65	87	109	151	34	51	69	86	119
8.0	S	19	28	39	48	66	20	29	39	50	68	25	36	49	62	85
	D	15	22	30	37	52	35	54	72	90	124	28	42	57	71	98
8.5	S	17	25	35	43	58	17	26	35	44	60	22	32	43	55	75
	D	12	19	25	31	43	30	45	60	75	103	23	35	47	59	81
9.0	S	15	22	31	38	52	16	23	31	39	53	19	29	39	49	67
	D	10	16	21	26	36	25	38	50	63	87	20	30	40	50	69
9.5	S	13	20	28	34	47	14	21	28	35	48	17	26	35	44	60
	D	9	13	18	22	31	21	32	43	54	74	17	25	34	42	58
10.0	S	12	18	25	31	42	13	19	25	32	43	16	23	31	40	54
	D	8	11	15	19	26	18	27	37	46	64	14	22	29	36	50
10.5	S	11	16	23	28	38	11	17	23	29	39	14	21	28	36	49
	D	7	10	13	17	23	16	24	32	40	55	12	19	25	31	43
11.0	S	10	15	21	26	35	10	15	21	26	36	13	19	26	33	45
	D	6	9	12	14	20	14	21	28	35	48	11	16	22	27	38

- 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

