

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)					
	0.762	0.802	9.25	20.1	25.6	1.34	0.982	0.246	2.11	0.358
	0.914	0.954	11.0	25.0	31.1	1.65	1.48	0.371	3.14	0.533
	1.22	1.26	14.6	35.3	41.5	2.31	2.81	0.703	5.83	0.991

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)		
		0.762	0.914	1.22	0.762	0.914	1.22	0.762	0.914	1.22
1.5	S	9.87	12.3	17.3	12.6	15.2	20.3	15.4	19.1	25.4
	D	34.3	42.4	59.3	82.4	102	142	64.9	80.1	112
1.6	S	8.68	10.8	15.2	11.0	13.4	17.9	13.6	16.7	22.3
	D	28.3	34.9	48.9	67.9	83.9	117	53.5	66.0	92.4
1.8	S	6.86	8.51	12.0	8.72	10.6	14.1	10.7	13.2	17.6
	D	19.9	24.5	34.3	47.7	58.9	82.4	37.6	46.4	64.9
2.0	S	5.55	6.89	9.75	7.06	8.57	11.4	8.68	10.7	14.3
	D	14.5	17.9	25.0	34.8	42.9	60.1	27.4	33.8	47.3
2.2	S	4.59	5.70	8.06	5.84	7.08	9.45	7.17	8.85	11.8
	D	10.9	13.4	18.8	26.1	32.3	45.1	20.6	25.4	35.5
2.4	S	3.86	4.79	6.77	4.91	5.95	7.94	6.03	7.44	9.92
	D	8.38	10.4	14.5	20.1	24.9	34.8	15.8	19.6	27.4
2.5	S	3.55	4.41	6.24	4.52	5.49	7.32	5.55	6.86	9.15
	D	7.42	9.16	12.8	17.8	22.0	30.8	14.0	17.3	24.2
2.6	S	3.29	4.08	5.77	4.18	5.07	6.76	5.13	6.34	8.46
	D	6.59	8.14	11.4	15.8	19.5	27.3	12.5	15.4	21.5
2.8	S	2.83	3.52	4.97	3.60	4.37	5.83	4.43	5.47	7.29
	D	5.28	6.52	9.12	12.7	15.7	21.9	10.0	12.3	17.2
3.0	S	2.47	3.06	4.33	3.14	3.81	5.08	3.86	4.76	6.35
	D	4.29	5.30	7.42	10.3	12.7	17.8	8.11	10.0	14.0
3.2	S	2.17	2.69	3.81	2.76	3.35	4.47	3.39	4.19	5.58
	D	3.54	4.37	6.11	8.49	10.5	14.7	6.68	8.25	11.6
3.4	S	1.92	2.38	3.37	2.44	2.97	3.96	3.00	3.71	4.94
	D	2.95	3.64	5.09	7.07	8.74	12.2	5.57	6.88	9.63
3.5	S	1.81	2.25	3.18	2.31	2.80	3.73	2.83	3.50	4.67
	D	2.70	3.34	4.67	6.49	8.01	11.2	5.11	6.31	8.83
3.6	S	1.71	2.13	3.01	2.18	2.65	3.53	2.68	3.31	4.41
	D	2.48	3.07	4.29	5.96	7.36	10.3	4.69	5.80	8.11
3.8	S	1.54	1.91	2.70	1.96	2.37	3.17	2.40	2.97	3.96
	D	2.11	2.61	3.65	5.07	6.26	8.76	3.99	4.93	6.90
4.0	S	1.39	1.72	2.44	1.77	2.14	2.86	2.17	2.68	3.57
	D	1.81	2.24	3.13	4.34	5.37	7.51	3.42	4.23	5.91

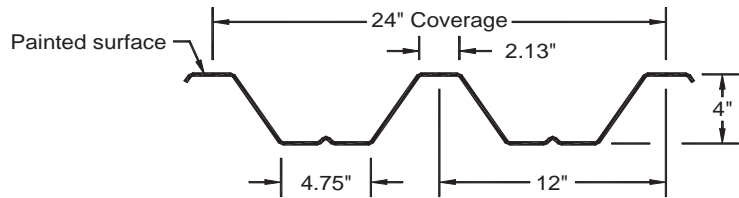
- Notes:**
- 1 Based on ASTM A 653 Grade 230 structural steel.
 - 2 Values in row "S" are based on strength.
 - 3 Values in row "D" are based on deflection of 1/180th span.
 - 4 Web crippling not included in strength calculations. See Example.

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





S-40-SH



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 (in. ³)	Support (in. ³)		P _{e1} End (lb)	P _{e2} End (lb)	P _{i1} Interior (lb)	P _{i2} Interior (lb)
0.030	0.0315	1.89	0.375	0.477	0.980	66.6	16.6	143	24.3	
0.036	0.0375	2.26	0.465	0.579	1.21	101	25.1	213	36.1	
0.048	0.0495	3.00	0.658	0.771	1.69	191	47.7	395	67.2	

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)		
		0.030	0.036	0.048	0.030	0.036	0.048	0.030	0.036	0.048
5.0	S	198	246	347	252	303	404	309	379	506
	D	684	845	1182	642	2028	2838	293	1597	2235
5.5	S	163	203	287	208	251	334	255	313	418
	D	514	635	888	234	1524	2132	972	1200	1679
6.0	S	137	170	241	175	211	281	215	263	351
	D	396	489	684	950	1174	1642	748	924	1293
6.5	S	117	145	205	149	180	239	183	224	299
	D	311	385	538	747	923	1292	589	727	1017
7.0	S	101	125	177	128	155	206	158	194	258
	D	249	308	431	598	739	1034	471	582	814
7.5	S	88	109	154	112	135	180	137	169	225
	D	203	250	350	487	601	841	383	473	662
8.0	S	77	96	136	98	119	158	121	148	197
	D	167	206	289	401	495	693	316	390	546
8.5	S	68	85	120	87	105	140	107	131	175
	D	139	172	241	334	413	578	263	325	455
9.0	S	61	76	107	78	94	125	95	117	156
	D	117	145	203	282	348	487	222	274	383
9.5	S	55	68	96	70	84	112	86	105	140
	D	100	123	172	239	296	414	189	233	326
10.0	S	49	61	87	63	76	101	77	95	126
	D	86	106	148	205	254	355	162	200	279
10.5	S	45	56	79	57	69	92	70	86	115
	D	74	91	128	177	219	306	140	172	241
11.0	S	41	51	72	52	63	84	64	78	104
	D	64	79	111	154	190	267	121	150	210
11.5	S	37	46	66	48	57	76	58	72	96
	D	56	69	97	135	167	233	106	131	184
12.0	S	34	43	60	44	53	70	54	66	88
	D	49	61	86	119	147	205	94	116	162
12.5	S	32	39	56	40	49	65	49	61	81
	D	44	54	76	105	130	182	83	102	143
13.0	S	29	36	51	37	45	60	46	56	75
	D	39	48	67	93	115	161	74	91	127

- 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

