

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 ⁸ 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	9.12	8.04	8.04	0.114	1.45	1.02	5.12	0.871
	0.914	0.954	10.9	9.56	9.56	0.146	2.23	1.56	7.56	1.28
	1.22	1.26	14.4	12.5	12.5	0.219	4.31	3.02	13.9	2.36

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
2.0	S	2.22	2.64	3.45	2.22	2.64	3.45	2.77	3.30	4.32
	D	2.48	3.17	4.75	5.94	7.60	11.4	4.68	5.99	8.98
2.2	S	1.83	2.18	2.85	1.83	2.18	2.85	2.29	2.73	3.57
	D	1.86	2.38	3.57	4.46	5.71	8.56	3.52	4.50	6.74
2.4	S	1.54	1.83	2.40	1.54	1.83	2.40	1.93	2.29	3.00
	D	1.43	1.83	2.75	3.44	4.40	6.60	2.71	3.47	5.20
2.5	S	1.42	1.69	2.21	1.42	1.69	2.21	1.78	2.11	2.76
	D	1.27	1.62	2.43	3.04	3.89	5.84	2.40	3.07	4.60
2.6	S	1.31	1.56	2.04	1.31	1.56	2.04	1.64	1.95	2.55
	D	1.13	1.44	2.16	2.70	3.46	5.19	2.13	2.73	4.09
2.8	S	1.13	1.35	1.76	1.13	1.35	1.76	1.42	1.68	2.20
	D	0.90	1.15	1.73	2.17	2.77	4.15	1.71	2.18	3.27
3.0	S	0.99	1.17	1.53	0.99	1.17	1.53	1.23	1.47	1.92
	D	0.73	0.94	1.41	1.76	2.25	3.38	1.39	1.77	2.66
3.2	S	0.87	1.03	1.35	0.87	1.03	1.35	1.08	1.29	1.69
	D	0.60	0.77	1.16	1.45	1.86	2.78	1.14	1.46	2.19
3.4	S	0.77	0.91	1.20	0.77	0.91	1.20	0.96	1.14	1.49
	D	0.50	0.64	0.97	1.21	1.55	2.32	0.95	1.22	1.83
3.5	S	0.72	0.86	1.13	0.72	0.86	1.13	0.91	1.08	1.41
	D	0.46	0.59	0.89	1.11	1.42	2.13	0.87	1.12	1.68
3.6	S	0.68	0.81	1.07	0.68	0.81	1.07	0.86	1.02	1.33
	D	0.42	0.54	0.81	1.02	1.30	1.95	0.80	1.03	1.54
3.8	S	0.61	0.73	0.96	0.61	0.73	0.96	0.77	0.91	1.20
	D	0.36	0.46	0.69	0.87	1.11	1.66	0.68	0.87	1.31
4.0	S	0.55	0.66	0.86	0.55	0.66	0.86	0.69	0.82	1.08
	D	0.31	0.40	0.59	0.74	0.95	1.42	0.58	0.75	1.12
4.2	S	0.50	0.60	0.78	0.50	0.60	0.78	0.63	0.75	0.98
	D	0.27	0.34	0.51	0.64	0.82	1.23	0.51	0.65	0.97

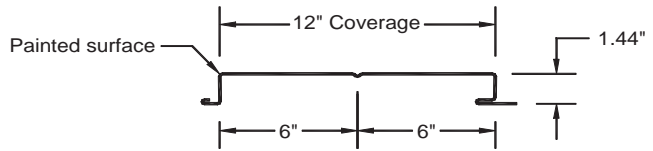
- Notes:**
- 1 Based on ASTM A 653 Grade 230 structural steel.
 - 2 Values in row "S" are based on strength.
 - 3 Values in row "D" are based on deflection of 1/90th span.
 - 4 Web crippling not included in strength calculations. See Example.

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





S-12-R



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	1.87	0.0912
				0.036	0.0375		2.23	0.121	0.178	0.107	273	68.2	512	87.1
0.048	0.0495	2.96	0.192	0.233	0.161	502	125	942	160					

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
6.0	S	33	45	70	55	65	85	52	70	107
	D	68	87	130	163	208	312	128	164	246
6.5	S	28	38	60	47	56	73	45	59	91
	D	53	68	102	128	164	246	101	129	193
7.0	S	25	33	52	40	48	63	38	51	78
	D	43	55	82	102	131	197	81	103	155
7.5	S	21	28	45	35	42	55	33	45	68
	D	35	44	67	83	107	160	66	84	126
8.0	S	19	25	40	31	37	48	29	39	60
	D	29	37	55	69	88	132	54	69	104
8.5	S	17	22	35	27	32	43	26	35	53
	D	24	31	46	57	73	110	45	58	87
9.0	S	15	20	31	24	29	38	23	31	47
	D	20	26	39	48	62	93	38	49	73
9.5	S	13	18	28	22	26	34	21	28	43
	D	17	22	33	41	52	79	32	41	62
10.0	S	12	16	25	20	23	31	19	25	38
	D	15	19	28	35	45	67	28	35	53
10.5	S	11	15	23	18	21	28	17	23	35
	D	13	16	24	30	39	58	24	31	46
11.0	S	10	13	21	16	19	25	16	21	32
	D	11	14	21	26	34	51	21	27	40
11.5	S	9	12	19	15	18	23	14	19	29
	D	10	12	18	23	30	44	18	23	35
12.0	S	8	11	18	14	16	21	13	17	27
	D	8	11	16	20	26	39	16	20	31
12.5	S	8	10	16	13	15	20	12	16	25
	D	7	10	14	18	23	35	14	18	27
13.0	S	7	9	15	12	14	18	11	15	23
	D	7	9	13	16	20	31	13	16	24
13.5	S	7	9	14	11	13	17	10	14	21
	D	6	8	11	14	18	27	11	14	22
14.0	S	6	8	13	10	12	16	10	13	20
	D	5	7	10	13	16	25	10	13	19

- 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 1/90th span.
 - 4 Web crippling not included in strength calculations. See Example.

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

