

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	4.44	1.80	1.80	0.0190	0.423	0.106	0.804	0.137
	0.610	0.650	5.83	2.69	2.69	0.0270	0.792	0.198	1.50	0.256
	0.762	0.802	7.22	3.66	3.66	0.0350	1.28	0.320	2.43	0.413
	0.914	0.954	8.61	4.69	4.69	0.0420	1.89	0.473	3.59	0.610
	1.22	1.26	11.4	6.59	6.59	0.0560	3.48	0.871	6.60	1.12

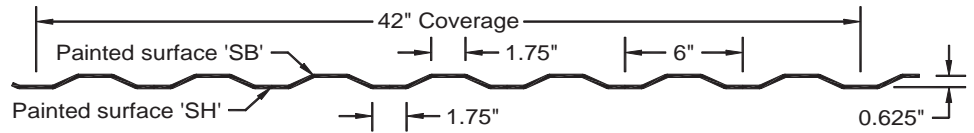
MAXIMUM UNIFORMLY DISTRIBUTED SPECIFIED LOAD (kPa)

SPAN LENGTH (m)		1-SPAN															2-SPAN					3-SPAN				
		BASE STEEL THICKNESS (mm)					BASE STEEL THICKNESS (mm)					BASE STEEL THICKNESS (mm)					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	1.99	2.97	4.04	5.18	7.28	1.99	2.97	4.04	5.18	7.28	2.48	3.71	5.06	6.47	9.10										
	D	1.67	2.37	3.04	3.66	4.88	4.01	5.68	7.30	8.80	11.71	3.16	4.47	5.75	6.93	9.22										
1.1	S	1.64	2.45	3.34	4.28	6.01	1.64	2.45	3.34	4.28	6.01	2.05	3.07	4.18	5.35	7.52										
	D	1.26	1.78	2.28	2.75	3.67	3.01	4.26	5.48	6.61	8.80	2.37	3.36	4.32	5.20	6.93										
1.2	S	1.38	2.06	2.81	3.60	5.05	1.38	2.06	2.81	3.60	5.05	1.73	2.58	3.51	4.49	6.32										
	D	0.97	1.37	1.76	2.12	2.82	2.32	3.28	4.22	5.09	6.78	1.83	2.59	3.33	4.01	5.34										
1.3	S	1.18	1.76	2.39	3.06	4.31	1.18	1.76	2.39	3.06	4.31	1.47	2.20	2.99	3.83	5.38										
	D	0.76	1.08	1.38	1.67	2.22	1.83	2.58	3.32	4.00	5.33	1.44	2.03	2.62	3.15	4.20										
1.4	S	1.01	1.51	2.06	2.64	3.71	1.01	1.51	2.06	2.64	3.71	1.27	1.89	2.58	3.30	4.64										
	D	0.61	0.86	1.11	1.34	1.78	1.46	2.07	2.66	3.21	4.27	1.15	1.63	2.09	2.52	3.36										
1.5	S	0.88	1.32	1.80	2.30	3.23	0.88	1.32	1.80	2.30	3.23	1.10	1.65	2.25	2.88	4.04										
	D	0.50	0.70	0.90	1.09	1.45	1.19	1.68	2.16	2.61	3.47	0.94	1.32	1.70	2.05	2.73										
1.6	S	0.78	1.16	1.58	2.02	2.84	0.78	1.16	1.58	2.02	2.84	0.97	1.45	1.97	2.53	3.55										
	D	0.41	0.58	0.74	0.89	1.19	0.98	1.39	1.78	2.15	2.86	0.77	1.09	1.40	1.69	2.25										
1.7	S	0.69	1.03	1.40	1.79	2.52	0.69	1.03	1.40	1.79	2.52	0.86	1.28	1.75	2.24	3.15										
	D	0.34	0.48	0.62	0.75	0.99	0.82	1.16	1.49	1.79	2.38	0.64	0.91	1.17	1.41	1.88										
1.8	S	0.61	0.92	1.25	1.60	2.25	0.61	0.92	1.25	1.60	2.25	0.77	1.15	1.56	2.00	2.81										
	D	0.29	0.41	0.52	0.63	0.84	0.69	0.97	1.25	1.51	2.01	0.54	0.77	0.99	1.19	1.58										
1.9	S	0.55	0.82	1.12	1.43	2.02	0.55	0.82	1.12	1.43	2.02	0.69	1.03	1.40	1.79	2.52										
	D	0.24	0.34	0.44	0.53	0.71	0.58	0.83	1.06	1.28	1.71	0.46	0.65	0.84	1.01	1.34										
2.0	S	0.50	0.74	1.01	1.29	1.82	0.50	0.74	1.01	1.29	1.82	0.62	0.93	1.26	1.62	2.27										
	D	0.21	0.30	0.38	0.46	0.61	0.50	0.71	0.91	1.10	1.46	0.39	0.56	0.72	0.87	1.15										
2.1	S	0.45	0.67	0.92	1.17	1.65	0.45	0.67	0.92	1.17	1.65	0.56	0.84	1.15	1.47	2.06										
	D	0.18	0.26	0.33	0.40	0.53	0.43	0.61	0.79	0.95	1.26	0.34	0.48	0.62	0.75	1.00										
2.2	S	0.41	0.61	0.84	1.07	1.50	0.41	0.61	0.84	1.07	1.50	0.51	0.77	1.04	1.34	1.88										
	D	0.16	0.22	0.29	0.34	0.46	0.38	0.53	0.69	0.83	1.10	0.30	0.42	0.54	0.65	0.87										
2.3	S	0.38	0.56	0.76	0.98	1.38	0.38	0.56	0.76	0.98	1.38	0.47	0.70	0.96	1.22	1.72										
	D	0.14	0.19	0.25	0.30	0.40	0.33	0.47	0.60	0.72	0.96	0.26	0.37	0.47	0.57	0.76										
2.4	S	0.35	0.52	0.70	0.90	1.26	0.35	0.52	0.70	0.90	1.26	0.43	0.64	0.88	1.12	1.58										
	D	0.12	0.17	0.22	0.27	0.35	0.29	0.41	0.53	0.64	0.85	0.23	0.32	0.42	0.50	0.67										
2.5	S	0.32	0.48	0.65	0.83	1.16	0.32	0.48	0.65	0.83	1.16	0.40	0.59	0.81	1.04	1.46										
	D	0.11	0.15	0.19	0.23	0.31	0.26	0.36	0.47	0.56	0.75	0.20	0.29	0.37	0.44	0.59										

- 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	0.909	0.0336	0.0336	0.0142	28.7	7.20	54.5	9.30
	0.024	0.0255	1.19	0.0501	0.0501	0.0200	53.7	13.4	102	17.3
	0.030	0.0315	1.48	0.0683	0.0683	0.0257	86.9	21.7	165	28.0
	0.036	0.0375	1.76	0.0874	0.0874	0.0310	128	32.1	243	41.4
	0.048	0.0495	2.33	0.123	0.123	0.0413	236	59.0	447	76.0

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
2.0	S	111	165	225	288	404	111	165	225	288	405	138	207	282	361	506
	D	154	218	280	338	450	370	524	673	811	1080	292	412	530	639	850
2.5	S	71	106	144	185	259	71	106	144	185	259	89	132	180	231	324
	D	79	112	144	173	230	190	268	345	415	553	149	211	271	327	435
3.0	S	49	74	100	128	180	49	74	100	128	180	62	92	125	160	225
	D	46	65	83	100	133	110	155	199	240	320	86	122	157	189	252
3.5	S	36	54	74	94	132	36	54	74	94	132	45	68	92	118	165
	D	29	41	52	63	84	69	98	126	151	201	54	77	99	119	159
4.0	S	28	41	56	72	101	28	41	56	72	101	35	52	70	90	126
	D	19	27	35	42	56	46	65	84	101	135	36	52	66	80	106
4.5	S	22	33	45	57	80	22	33	45	57	80	27	41	56	71	100
	D	14	19	25	30	39	33	46	59	71	95	26	36	47	56	75
5.0	S	18	26	36	46	65	18	26	36	46	65	22	33	45	58	81
	D	10	14	18	22	29	24	34	43	52	69	19	26	34	41	54
5.5	S	15	22	30	38	53	15	22	30	38	53	18	27	37	48	67
	D	7	10	13	16	22	18	25	32	39	52	14	20	25	31	41
6.0	S	12	18	25	32	45	12	18	25	32	45	15	23	31	40	56
	D	6	8	10	13	17	14	19	25	30	40	11	15	20	24	31
6.5	S	10	16	21	27	38	10	16	21	27	38	13	20	27	34	48
	D	4	6	8	10	13	11	15	20	24	31	8	12	15	19	25
7.0	S	9	14	18	24	33	9	14	18	24	33	11	17	23	29	41
	D	4	5	7	8	10	9	12	16	19	25	7	10	12	15	20
7.5	S	8	12	16	21	29	8	12	16	21	29	10	15	20	26	36
	D	3	4	5	6	9	7	10	13	15	20	6	8	10	12	16
8.0	S	7	10	14	18	25	7	10	14	18	25	9	13	18	23	32
	D	2	3	4	5	7	6	8	11	13	17	5	6	8	10	13

- 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

