

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	4.72	3.48	3.24	0.0930	0.574	0.143	1.10	0.188
	0.610	0.650	6.20	5.13	4.93	0.130	1.08	0.269	2.07	0.351
	0.762	0.802	7.68	6.90	6.60	0.164	1.75	0.436	3.34	0.568
	0.914	0.954	9.16	8.73	8.08	0.196	2.58	0.645	4.93	0.839
	1.22	1.26	12.1	11.6	11.1	0.261	4.76	1.19	9.07	1.54

MAXIMUM UNIFORMLY DISTRIBUTED SPECIFIED LOAD (kPa)

SPAN LENGTH (m)		MAXIMUM UNIFORMLY DISTRIBUTED SPECIFIED LOAD (kPa)														
		1-SPAN					2-SPAN					3-SPAN				
		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	3.85	5.66	7.62	9.64	12.8	3.58	5.44	7.29	8.92	12.2	4.47	6.80	9.11	11.2	15.3
	D	8.05	11.2	14.2	17.0	22.6	9.31	27.0	34.0	40.8	54.2	5.21	21.2	26.8	32.1	42.7
1.2	S	2.67	3.93	5.29	6.69	8.89	2.48	3.78	5.06	6.19	8.48	3.10	4.72	6.33	7.74	10.6
	D	4.66	6.50	8.20	9.83	13.1	1.18	15.6	19.7	23.6	31.4	8.80	12.3	15.5	18.6	24.7
1.4	S	1.96	2.89	3.89	4.92	6.53	1.82	2.77	3.72	4.55	6.23	2.28	3.47	4.65	5.69	7.79
	D	2.93	4.10	5.16	6.19	8.23	7.04	9.83	12.4	14.9	19.8	5.54	7.74	9.76	11.7	15.6
1.6	S	1.50	2.21	2.98	3.77	5.00	1.40	2.12	2.85	3.48	4.77	1.75	2.65	3.56	4.36	5.96
	D	1.96	2.74	3.46	4.15	5.51	4.71	6.58	8.30	9.95	13.2	3.71	5.19	6.54	7.84	10.4
1.8	S	1.19	1.75	2.35	2.98	3.95	1.10	1.68	2.25	2.75	3.77	1.38	2.10	2.81	3.44	4.71
	D	1.38	1.93	2.43	2.91	3.87	3.31	4.62	5.83	6.99	9.29	2.61	3.64	4.59	5.50	7.32
2.0	S	0.96	1.41	1.90	2.41	3.20	0.89	1.36	1.82	2.23	3.05	1.12	1.70	2.28	2.79	3.81
	D	1.01	1.40	1.77	2.12	2.82	2.41	3.37	4.25	5.09	6.77	1.90	2.66	3.35	4.01	5.33
2.2	S	0.79	1.17	1.57	1.99	2.65	0.74	1.12	1.51	1.84	2.52	0.92	1.40	1.88	2.30	3.15
	D	0.76	1.06	1.33	1.59	2.12	1.81	2.53	3.19	3.83	5.09	1.43	1.99	2.52	3.01	4.01
2.4	S	0.67	0.98	1.32	1.67	2.22	0.62	0.94	1.27	1.55	2.12	0.78	1.18	1.58	1.94	2.65
	D	0.58	0.81	1.02	1.23	1.63	1.40	1.95	2.46	2.95	3.92	1.10	1.54	1.94	2.32	3.09
2.6	S	0.57	0.84	1.13	1.43	1.89	0.53	0.80	1.08	1.32	1.81	0.66	1.01	1.35	1.65	2.26
	D	0.46	0.64	0.81	0.97	1.28	1.10	1.53	1.93	2.32	3.08	0.87	1.21	1.52	1.83	2.43
2.8	S	0.49	0.72	0.97	1.23	1.63	0.46	0.69	0.93	1.14	1.56	0.57	0.87	1.16	1.42	1.95
	D	0.37	0.51	0.65	0.77	1.03	0.88	1.23	1.55	1.86	2.47	0.69	0.97	1.22	1.46	1.94
3.0	S	0.43	0.63	0.85	1.07	1.42	0.40	0.60	0.81	0.99	1.36	0.50	0.76	1.01	1.24	1.70
	D	0.30	0.42	0.52	0.63	0.84	0.72	1.00	1.26	1.51	2.01	0.56	0.79	0.99	1.19	1.58
3.2	S	0.38	0.55	0.74	0.94	1.25	0.35	0.53	0.71	0.87	1.19	0.44	0.66	0.89	1.09	1.49
	D	0.25	0.34	0.43	0.52	0.69	0.59	0.82	1.04	1.24	1.65	0.46	0.65	0.82	0.98	1.30
3.4	S	0.33	0.49	0.66	0.83	1.11	0.31	0.47	0.63	0.77	1.06	0.39	0.59	0.79	0.96	1.32
	D	0.20	0.29	0.36	0.43	0.57	0.49	0.69	0.87	1.04	1.38	0.39	0.54	0.68	0.82	1.09
3.6	S	0.30	0.44	0.59	0.74	0.99	0.28	0.42	0.56	0.69	0.94	0.34	0.52	0.70	0.86	1.18
	D	0.17	0.24	0.30	0.36	0.48	0.41	0.58	0.73	0.87	1.16	0.33	0.46	0.57	0.69	0.91
3.8	S	0.27	0.39	0.53	0.67	0.89	0.25	0.38	0.50	0.62	0.85	0.31	0.47	0.63	0.77	1.06
	D	0.15	0.20	0.26	0.31	0.41	0.35	0.49	0.62	0.74	0.99	0.28	0.39	0.49	0.58	0.78
4.0	S	0.24	0.35	0.48	0.60	0.80	0.22	0.34	0.46	0.56	0.76	0.28	0.42	0.57	0.70	0.95
	D	0.13	0.18	0.22	0.27	0.35	0.30	0.42	0.53	0.64	0.85	0.24	0.33	0.42	0.50	0.67

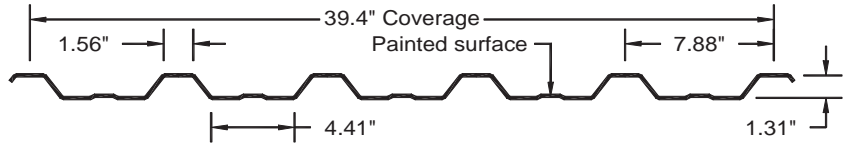
- Notes:**
- 1 Based on ASTM A 653 Grade 230 structural steel.
 - 2 Values in row "S" are based on strength.
 - 3 Values in row "D" are based on deflection of 1/180th span.
 - 4 Web crippling not included in strength calculations. See Example.

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





SAMSON PANEL-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	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	0.966	0.0649	0.0604	0.0681	38.9	9.70	74.8	12.7
	0.024	0.0255	1.27	0.0955	0.0919	0.0951	73.0	18.3	140	23.8
	0.030	0.0315	1.57	0.129	0.123	0.120	118	29.6	227	38.5
	0.036	0.0375	1.88	0.163	0.150	0.144	175	43.7	334	56.8
	0.048	0.0495	2.48	0.216	0.206	0.191	322	80.6	615	105

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	214	315	424	537	712	199	303	406	496	679	249	379	507	620	849
	D	743	1037	1306	1566	2082	1782	2488	3135	3757	4997	1404	1959	2469	2959	3935
2.5	S	137	202	271	344	456	128	194	260	317	434	159	242	324	397	543
	D	380	531	669	802	1066	913	1274	1605	1924	2558	719	1003	1264	1515	2015
3.0	S	95	140	189	239	316	89	135	180	220	302	111	168	225	276	377
	D	220	307	387	464	617	528	737	929	1113	1480	416	581	732	877	1166
3.5	S	70	103	139	175	232	65	99	132	162	222	81	124	166	202	277
	D	139	193	244	292	388	333	464	585	701	932	262	366	461	552	734
4.0	S	54	79	106	134	178	50	76	101	124	170	62	95	127	155	212
	D	93	130	163	196	260	223	311	392	470	625	175	245	309	370	492
4.5	S	42	62	84	106	141	39	60	80	98	134	49	75	100	122	168
	D	65	91	115	137	183	156	218	275	330	439	123	172	217	260	345
5.0	S	34	50	68	86	114	32	48	65	79	109	40	61	81	99	136
	D	48	66	84	100	133	114	159	201	240	320	90	125	158	189	252
5.5	S	28	42	56	71	94	26	40	54	66	90	33	50	67	82	112
	D	36	50	63	75	100	86	120	151	181	240	67	94	119	142	189
6.0	S	24	35	47	60	79	22	34	45	55	75	28	42	56	69	94
	D	28	38	48	58	77	66	92	116	139	185	52	73	91	110	146
6.5	S	20	30	40	51	67	19	29	38	47	64	24	36	48	59	80
	D	22	30	38	46	61	52	72	91	109	146	41	57	72	86	115
7.0	S	17	26	35	44	58	16	25	33	40	55	20	31	41	51	69
	D	17	24	30	37	49	42	58	73	88	117	33	46	58	69	92
7.5	S	15	22	30	38	51	14	22	29	35	48	18	27	36	44	60
	D	14	20	25	30	39	34	47	59	71	95	27	37	47	56	75
8.0	S	13	20	27	34	44	12	19	25	31	42	16	24	32	39	53
	D	12	16	20	24	33	28	39	49	59	78	22	31	39	46	61
8.5	S	12	17	23	30	39	11	17	22	27	38	14	21	28	34	47
	D	10	14	17	20	27	23	32	41	49	65	18	26	32	39	51
9.0	S	11	16	21	27	35	10	15	20	24	34	12	19	25	31	42
	D	8	11	14	17	23	20	27	34	41	55	15	22	27	32	43
9.5	S	9	14	19	24	32	9	13	18	22	30	11	17	22	27	38
	D	7	10	12	15	19	17	23	29	35	47	13	18	23	28	37
10.0	S	9	13	17	21	28	8	12	16	20	27	10	15	20	25	34
	D	6	8	10	13	17	14	20	25	30	40	11	16	20	24	31

- 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

