

Section Properties

(Per Foot of Width)

Base Steel Thickness (in.)	Weight G90 (psf)	Yield Stress (ksi)	Section Modulus		Deflection Moment of Inertia Mid Span (in ⁴)	Specified Web Crippling Data (lb)			
			Mid Span (in ³)	Support (in ³)		End Pe1	End Pe2	Interior Pi1	Interior Pi2
0.018	1.04	33	0.118	0.118	0.104	48.1	12.0	97.6	16.6
0.024	1.36	33	0.158	0.158	0.138	91.7	22.9	184	31.2
0.030	1.69	33	0.196	0.196	0.173	150	37.5	298	50.7
0.036	2.02	33	0.234	0.234	0.207	223	55.7	441	74.9
0.048	2.67	33	0.309	0.309	0.275	414	104	813	138

Live Load Factor = 1.5; Importance Factor (I_{s-sls}) = 0.90; Importance Factor (I_{s-uls}) = 1.0

Load Table

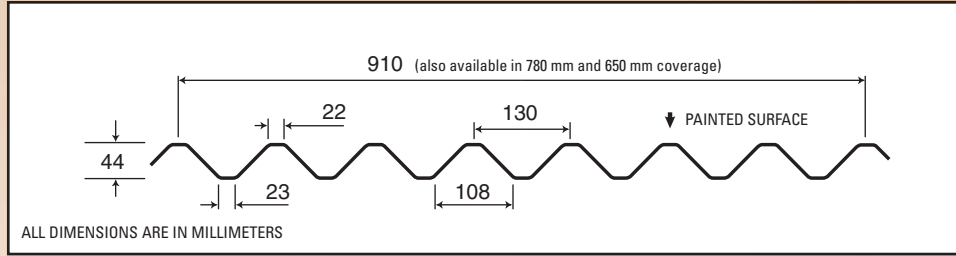
Maximum Specified Uniformly Distributed Loads in psf

Span (ft.)		1-Span Base Steel Thickness (in.)					2-Span Base Steel Thickness (in.)					3-Span Base Steel Thickness (in.)				
		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
4'-0"	S	97	130	162	193	255	97	130	162	193	255	122	162	202	241	318
	D	157	209	261	313	416	378	503	627	751	998	297	396	494	592	786
4'-6"	S	77	103	128	152	201	77	103	128	152	201	96	128	160	191	251
	D	111	147	184	220	292	265	353	441	528	701	209	278	347	416	552
5'-0"	S	62	83	103	123	163	62	83	103	123	163	78	104	129	154	204
	D	81	107	134	160	213	193	257	321	385	511	152	203	253	303	403
5'-6"	S	51	69	85	102	135	51	69	85	102	135	64	86	107	128	168
	D	61	81	101	120	160	145	193	241	289	384	114	152	190	228	302
6'-0"	S	43	58	72	86	113	43	58	72	86	113	54	72	90	107	141
	D	47	62	77	93	123	112	149	186	223	296	88	117	146	175	233
6'-6"	S	37	49	61	73	96	37	49	61	73	96	46	62	77	91	121
	D	37	49	61	73	97	88	117	146	175	233	69	92	115	138	183
7'-0"	S	32	42	53	63	83	32	42	53	63	83	40	53	66	79	104
	D	29	39	49	58	78	70	94	117	140	186	55	74	92	110	147
7'-6"	S	28	37	46	55	72	28	37	46	55	72	35	46	57	69	91
	D	24	32	40	47	63	57	76	95	114	151	45	60	75	90	119
8'-0"	S	24	32	40	48	64	24	32	40	48	64	30	41	51	60	80
	D	20	26	33	39	52	47	63	78	94	125	37	49	62	74	98
8'-6"	S	22	29	36	43	56	22	29	36	43	56	27	36	45	53	70
	D	16	22	27	33	43	39	52	65	78	104	31	41	51	62	82
9'-0"	S	19	26	32	38	50	19	26	32	38	50	24	32	40	48	63
	D	14	18	23	27	37	33	44	55	66	88	26	35	43	52	69

Notes:

- Steel conforms to ASTM A653.
- Section properties are in accordance with CSA-S136-07.
- Values in row "S" are based on strength.
- Values in row "D" are based on a deflection limit of 1/180 of the span.
- Web crippling not included in strength values. See example calculation in notes to designer.
- Contact the sales department for stocked colours and gauges.
- The load table contained on this data sheet was prepared by Dr. R.M. Schuster P.Eng. Professor Emeritus of Structural Engineering, University of Waterloo, Ontario, Canada.





Section Properties

(Per Metre of Width)

Base Steel Thickness (mm)	Mass Z275 (kg/m ²)	Yield Stress (MPa)	Section Modulus (x 10 ³ mm ³)		Deflection Moment of Inertia Mid Span (x 10 ⁶ mm ⁴)	Specified Web Crippling Data (kN)			
			Mid Span	Support		End Pe1	End Pe2	Interior Pi1	Interior Pi2
0.457	5.06	230	6.34	6.33	0.142	0.710	0.178	1.44	0.245
0.610	6.66	230	8.47	8.47	0.189	1.35	0.338	2.71	0.461
0.762	8.25	230	10.5	10.5	0.236	2.21	0.553	4.40	0.747
0.914	9.85	230	12.6	12.6	0.282	3.29	0.822	6.50	1.11
1.22	13.0	230	16.6	16.6	0.375	6.11	1.53	12.0	2.04

Load Table

Live Load Factor = 1.5; Importance Factor (I_{s-SLS}) = 0.90; Importance Factor (I_{s-ULS}) = 1.0

Maximum Specified Uniformly Distributed Loads in kPa

Span (mm)		1-Span Base Steel Thickness (mm)					2-Span Base Steel Thickness (mm)					3-Span 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
1200	S	4.85	6.49	8.08	9.64	12.7	4.86	6.49	8.08	9.64	12.7	6.07	8.12	10.1	12.1	15.9
	D	7.90	10.5	13.1	15.7	20.9	19.0	25.2	31.5	37.7	50.1	14.9	19.9	24.8	29.7	39.5
1400	S	3.56	4.77	5.93	7.08	9.35	3.57	4.77	5.93	7.08	9.35	4.46	5.96	7.42	8.85	11.7
	D	4.98	6.62	8.26	9.90	13.2	11.9	15.9	19.8	23.8	31.6	9.40	12.5	15.6	18.7	24.9
1500	S	3.11	4.16	5.17	6.17	8.14	3.11	4.16	5.17	6.17	8.14	3.89	5.19	6.46	7.71	10.2
	D	4.05	5.38	6.72	8.05	10.7	9.71	12.9	16.1	19.3	25.7	7.65	10.2	12.7	15.2	20.2
1600	S	2.73	3.65	4.54	5.42	7.16	2.73	3.65	4.54	5.42	7.16	3.42	4.57	5.68	6.78	8.95
	D	3.33	4.44	5.54	6.63	8.81	8.00	10.7	13.3	15.9	21.2	6.30	8.39	10.5	12.5	16.7
1800	S	2.16	2.89	3.59	4.28	5.66	2.16	2.89	3.59	4.28	5.66	2.70	3.61	4.49	5.36	7.07
	D	2.34	3.12	3.89	4.66	6.19	5.62	7.48	9.33	11.2	14.9	4.42	5.89	7.35	8.80	11.7
2000	S	1.75	2.34	2.91	3.47	4.58	1.75	2.34	2.91	3.47	4.58	2.19	2.92	3.63	4.34	5.73
	D	1.71	2.27	2.83	3.40	4.51	4.10	5.45	6.80	8.15	10.8	3.23	4.29	5.36	6.42	8.53
2200	S	1.44	1.93	2.40	2.87	3.79	1.45	1.93	2.40	2.87	3.79	1.81	2.41	3.00	3.59	4.73
	D	1.28	1.71	2.13	2.55	3.39	3.08	4.10	5.11	6.12	8.14	2.42	3.23	4.03	4.82	6.41
2400	S	1.21	1.62	2.02	2.41	3.18	1.21	1.62	2.02	2.41	3.18	1.52	2.03	2.52	3.01	3.98
	D	0.99	1.31	1.64	1.97	2.61	2.37	3.16	3.94	4.72	6.27	1.87	2.48	3.10	3.71	4.94
2500	S	1.12	1.50	1.86	2.22	2.93	1.12	1.50	1.86	2.22	2.93	1.40	1.87	2.33	2.78	3.66
	D	0.87	1.16	1.45	1.74	2.31	2.10	2.79	3.48	4.17	5.54	1.65	2.20	2.74	3.29	4.37
2600	S	1.03	1.38	1.72	2.05	2.71	1.03	1.38	1.72	2.05	2.71	1.29	1.73	2.15	2.57	3.39
	D	0.78	1.03	1.29	1.55	2.05	1.86	2.48	3.10	3.71	4.93	1.47	1.95	2.44	2.92	3.88
2800	S	0.89	1.19	1.48	1.77	2.34	0.89	1.19	1.48	1.77	2.34	1.12	1.49	1.85	2.21	2.92
	D	0.62	0.83	1.03	1.24	1.64	1.49	1.99	2.48	2.97	3.95	1.18	1.56	1.95	2.34	3.11

Notes:

- Steel conforms to ASTM A653M.
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