

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
0.0135	0.73	80	0.0340	0.0278	0.0455	33.6	8.41	66.8	11.4
0.0150	0.80	33	0.0428	0.0364	0.0564	20.1	5.02	39.8	6.77
0.0180	0.95	50	0.0509	0.0432	0.0673	45.8	11.5	90.3	15.4
0.0240	1.25	33	0.0777	0.0674	0.0938	57.0	14.3	112	19.0
0.0300	1.55	33	0.101	0.0867	0.117	92.6	23.2	181	30.7

Live Load Factor = 1.5; Importance Factor (I_{w-SLS}) = 0.90; Importance Factor (I_{w-ULS}) = 0.80

Load Table

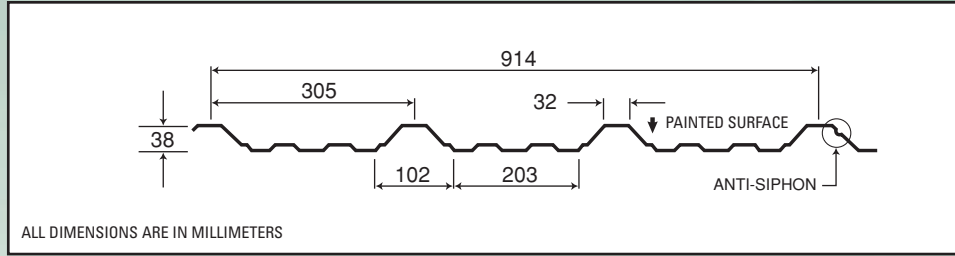
Maximum Specified Uniformly Distributed Loads in psf

Span (in.)		1-Span Base Steel Thickness (in.)					2-Span Base Steel Thickness (in.)					3-Span Base Steel Thickness (in.)				
		0.0135	0.0150	0.0180	0.0240	0.0300	0.0135	0.0150	0.0180	0.0240	0.0300	0.0135	0.0150	0.0180	0.0240	0.0300
24	S	263	176	318	321	418	210	150	270	278	358	239	188	337	347	447
	D	551	683	816	1136	1419	1322	1639	1958	2727	3405	1041	1291	1542	2148	2681
36	S	132	78	141	143	186	108	67	120	123	159	135	83	150	154	199
	D	163	202	242	337	420	392	486	580	808	1009	308	382	457	636	794
42	S	97	58	104	105	137	79	49	88	91	117	99	61	110	113	146
	D	103	127	152	212	265	247	306	365	509	635	194	241	288	401	500
48	S	75	44	80	80	105	61	38	67	69	89	76	47	84	87	112
	D	69	85	102	142	177	165	205	245	341	426	130	161	193	268	335
54	S	59	35	63	63	83	48	30	53	55	71	60	37	67	69	88
	D	48	60	72	100	125	116	144	172	239	299	91	113	135	189	235
60	S	48	28	51	51	67	39	24	43	44	57	49	30	54	56	72
	D	35	44	52	73	91	85	105	125	175	218	67	83	99	137	172
66	S	39	23	42	42	55	32	20	36	37	47	40	25	45	46	59
	D	26	33	39	55	68	64	79	94	131	164	50	62	74	103	129
72	S	33	20	35	36	46	27	17	30	31	40	34	21	37	39	50
	D	20	25	30	42	53	49	61	73	101	126	39	48	57	80	99
78	S	28	17	30	30	40	23	14	26	26	34	29	18	32	33	42
	D	16	20	24	33	41	39	48	57	79	99	30	38	45	63	78
84	S	24	14	26	26	34	20	12	22	23	29	25	15	28	28	36
	D	13	16	19	27	33	31	38	46	64	79	24	30	36	50	63
90	S	21	13	23	23	30	17	11	19	20	25	22	13	24	25	32
	D	10	13	15	22	27	25	31	37	52	65	20	24	29	41	51
96	S		11	20	20	26	15		17	17	22	19	12	21	22	28
	D		11	13	18	22	21		31	43	53	16	20	24	34	42

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		Deflection Moment of Inertia Mid Span (x 10 ⁶ mm ⁴)	Specified Web Crippling Data (kN)			
			Mid Span (x 10 ³ mm ³)	Support (x 10 ³ mm ³)		End Pe1	End Pe2	Interior Pi1	Interior Pi2
0.343	3.55	550	1.83	1.49	0.0621	0.489	0.122	0.972	0.165
0.381	3.91	230	2.30	1.95	0.0769	0.296	0.074	0.587	0.100
0.457	4.64	345	2.74	2.32	0.0919	0.669	0.167	1.32	0.224
0.610	6.09	230	4.17	3.62	0.128	0.841	0.210	1.65	0.280
0.762	7.54	230	5.45	4.66	0.160	1.37	0.342	2.66	0.453

Load Table

Live Load Factor = 1.5; Importance Factor (I_{w-SLS}) = 0.90; Importance Factor (I_{w-ULS}) = 0.80

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)				
		0.343	0.381	0.457	0.610	0.762	0.343	0.381	0.457	0.610	0.762	0.343	0.381	0.457	0.610	0.762
600	S	12.8	8.80	15.7	16.0	20.9	10.2	7.48	13.3	13.9	17.9	11.6	9.35	16.7	17.3	22.3
	D	27.7	34.3	41.0	57.1	71.2	66.4	82.2	98.3	137	171	52.3	64.7	77.4	108	135
800	S	8.27	4.95	8.85	9.00	11.8	6.75	4.21	7.50	7.80	10.0	8.43	5.26	9.38	9.75	12.6
	D	11.7	14.5	17.3	24.1	30.1	28.0	34.7	41.5	57.8	72.1	22.1	27.3	32.7	45.5	56.8
1000	S	5.29	3.17	5.66	5.76	7.52	4.32	2.69	4.80	4.99	6.43	5.40	3.37	6.00	6.24	8.03
	D	5.98	7.40	8.85	12.3	15.4	14.3	17.8	21.2	29.6	36.9	11.3	14.0	16.7	23.3	29.1
1200	S	3.67	2.20	3.93	4.00	5.22	3.00	1.87	3.33	3.47	4.46	3.75	2.34	4.17	4.33	5.58
	D	3.46	4.28	5.12	7.13	8.91	8.30	10.3	12.3	17.1	21.4	6.54	8.09	9.68	13.5	16.8
1400	S	2.70	1.62	2.89	2.94	3.84	2.20	1.37	2.45	2.55	3.28	2.75	1.72	3.06	3.18	4.10
	D	2.18	2.70	3.22	4.49	5.61	5.23	6.47	7.74	10.8	13.5	4.12	5.10	6.09	8.49	10.6
1500	S	2.35	1.41	2.52	2.56	3.34	1.92	1.20	2.13	2.22	2.86	2.40	1.50	2.67	2.77	3.57
	D	1.77	2.19	2.62	3.65	4.56	4.25	5.26	6.29	8.76	10.9	3.35	4.14	4.95	6.90	8.62
1600	S	2.07	1.24	2.21	2.25	2.94	1.69	1.05	1.88	1.95	2.51	2.11	1.32	2.34	2.44	3.14
	D	1.46	1.81	2.16	3.01	3.76	3.50	4.34	5.18	7.22	9.02	2.76	3.41	4.08	5.69	7.10
1800	S	1.63	0.98	1.75	1.78	2.32	1.33	0.83	1.48	1.54	1.98	1.67	1.04	1.85	1.93	2.48
	D	1.02	1.27	1.52	2.11	2.64	2.46	3.05	3.64	5.07	6.33	1.94	2.40	2.87	3.99	4.99
2000	S	1.32	0.79	1.42	1.44	1.88	1.08	0.67	1.20	1.25	1.61	1.35	0.84	1.50	1.56	2.01
	D	0.75	0.92	1.11	1.54	1.92	1.79	2.22	2.65	3.70	4.62	1.41	1.75	2.09	2.91	3.64
2200	S	1.09	0.65	1.17	1.19	1.55	0.89	0.56	0.99	1.03	1.33	1.12	0.70	1.24	1.29	1.66
	D	0.56	0.69	0.83	1.16	1.45	1.35	1.67	1.99	2.78	3.47	1.06	1.31	1.57	2.19	2.73
2400	S		0.55	0.98	1.00	1.31	0.75		0.83	0.87	1.12	0.94	0.58	1.04	1.08	1.39
	D		0.54	0.64	0.89	1.11	1.04		1.54	2.14	2.67	0.82	1.01	1.21	1.69	2.10

Notes:

- Steel conforms to ASTM A653M.
- Section properties are in accordance with CSA-S136-07.
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