

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
0.0120	0.61	33	0.0110	0.0116	0.0037	24.9	6.23	47.2	8.03
0.0150	0.68	33	0.0112	0.0120	0.0039	59.7	14.9	113	19.2
0.0180	0.88	33	0.0207	0.0208	0.0072	59.5	14.9	113	19.2
0.0240	1.16	33	0.0304	0.0312	0.0107	110	27.4	207	35.2
0.0300	1.43	33	0.0386	0.0413	0.0144	175	43.8	331	56.3

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

Load Table

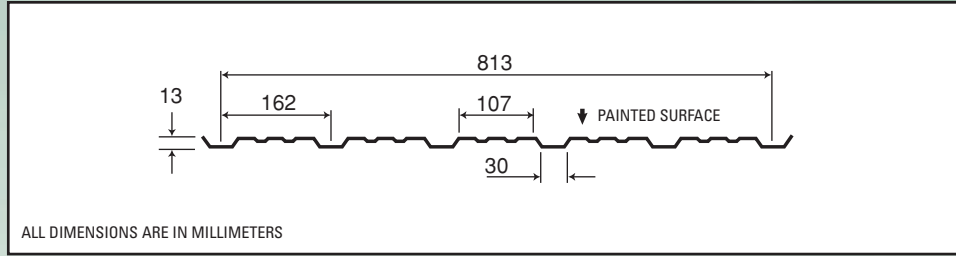
Maximum Specified Uniformly Distributed Loads in psf

Span (in.)		1-Span Base Steel Thickness (in.)					2-Span Base Steel Thickness (in.)					3-Span Base Steel Thickness (in.)				
		0.0120	0.0150	0.0180	0.0240	0.0300	0.0120	0.0150	0.0180	0.0240	0.0300	0.0120	0.0150	0.0180	0.0240	0.0300
16	S	102	192	192	282	358	108	206	193	289	383	134	258	241	362	479
	D	153	160	292	439	588	367	384	702	1053	1411	289	303	553	829	1111
20	S	65	123	123	180	229	69	132	123	185	245	86	165	154	231	306
	D	78	82	150	225	301	188	197	359	539	722	148	155	283	424	569
24	S	45	85	85	125	159	48	92	86	129	170	60	114	107	161	213
	D	45	47	87	130	174	109	114	208	312	418	86	90	164	246	329
30	S	29	55	55	80	102	31	59	55	82	109	38	73	69	103	136
	D	23	24	44	67	89	56	58	106	160	214	44	46	84	126	169
36	S	20	38	38	56	71	21	41	38	57	76	27	51	48	71	95
	D	13	14	26	39	52	32	34	62	92	124	25	27	49	73	98
42	S			28	41	52	16	30	28	42	56	20	37	35	52	69
	D			16	24	32	20	21	39	58	78	16	17	31	46	61
48	S			21	31	40	12	23	21	32	43	15	29	27	40	53
	D			11	16	22	14	14	26	39	52	11	11	20	31	41
54	S				25	31			17	25	34			21	32	42
	D				11	15			18	27	37			14	22	29
60	S					25			14	21	27			17	26	34
	D					11			13	20	27			10	16	21
66	S								17	23					21	28
	D								15	20					12	16
72	S								14	19						24
	D								12	15						12
78	S									16						
	D									12						

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
0.305	2.97	230	0.590	0.621	0.0051	0.368	0.092	0.697	0.118
0.381	3.30	230	0.600	0.643	0.0053	0.869	0.217	1.65	0.280
0.457	4.31	230	1.11	1.12	0.0093	0.878	0.219	1.66	0.283
0.610	5.66	230	1.63	1.67	0.0146	1.62	0.404	3.06	0.519
0.762	7.00	230	2.07	2.22	0.0196	2.58	0.645	4.88	0.830

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)				
		0.305	0.381	0.457	0.610	0.762	0.305	0.381	0.457	0.610	0.762	0.305	0.381	0.457	0.610	0.762
300	S	9.04	16.9	17.0	25.0	31.8	9.53	18.1	17.1	25.6	34.0	11.9	22.6	21.4	32.1	42.5
	D	18.2	19.1	33.1	52.1	69.9	43.6	45.8	79.5	125	168	34.4	36.0	62.6	98.5	132
400	S	5.09	9.49	9.58	14.1	17.9	5.36	10.2	9.61	14.4	19.1	6.70	12.7	12.0	18.0	23.9
	D	7.67	8.04	14.0	22.0	29.5	18.4	19.3	33.5	52.7	70.7	14.5	15.2	26.4	41.5	55.7
500	S	3.26	6.07	6.13	9.01	11.5	3.43	6.51	6.15	9.23	12.3	4.29	8.13	7.69	11.5	15.3
	D	3.93	4.12	7.15	11.3	15.1	9.42	9.9	17.2	27.0	36.2	7.42	7.78	13.5	21.3	28.5
600	S	2.26	4.22	4.26	6.25	7.95	2.38	4.52	4.27	6.41	8.51	2.98	5.65	5.34	8.01	10.6
	D	2.27	2.38	4.14	6.51	8.73	5.45	5.72	9.94	15.6	21.0	4.29	4.50	7.82	12.3	16.5
800	S	1.27	2.37	2.39	3.52	4.47	1.34	2.54	2.40	3.61	4.78	1.67	3.18	3.00	4.51	5.98
	D	0.96	1.01	1.75	2.75	3.68	2.30	2.41	4.19	6.59	8.84	1.81	1.90	3.30	5.19	6.96
1000	S		1.52	1.53	2.25	2.86	0.86	1.63	1.54	2.31	3.06	1.07	2.03	1.92	2.89	3.83
	D		0.51	0.89	1.41	1.89	1.18	1.24	2.15	3.38	4.53	0.93	0.97	1.69	2.66	3.57
1200	S			1.06	1.56	1.99	0.60	1.13	1.07	1.60	2.13	0.74	1.41	1.34	2.00	2.66
	D			0.52	0.81	1.09	0.68	0.71	1.24	1.95	2.62	0.54	0.56	0.98	1.54	2.06
1400	S				1.15	1.46			0.78	1.18	1.56			0.98	1.47	1.95
	D				0.51	0.69			0.78	1.23	1.65			0.62	0.97	1.30
1500	S					1.27			0.68	1.03	1.36			0.85	1.28	1.70
	D					0.56			0.64	1.00	1.34			0.50	0.79	1.06
1600	S								0.60	0.90	1.20				1.13	1.50
	D								0.52	0.82	1.11				0.65	0.87
1800	S									0.71	0.95					1.18
	D									0.58	0.78					0.61

Notes:

- Steel conforms to ASTM A653M.
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