

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	0.71	80	0.0126	0.0099	0.0083	44.7	11.2	79.5	13.5
0.0180	0.93	33	0.0167	0.0144	0.0110	45.9	11.5	82.7	14.1
0.0240	1.22	33	0.0220	0.0198	0.0146	85.1	21.3	155	26.3

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

Load Table

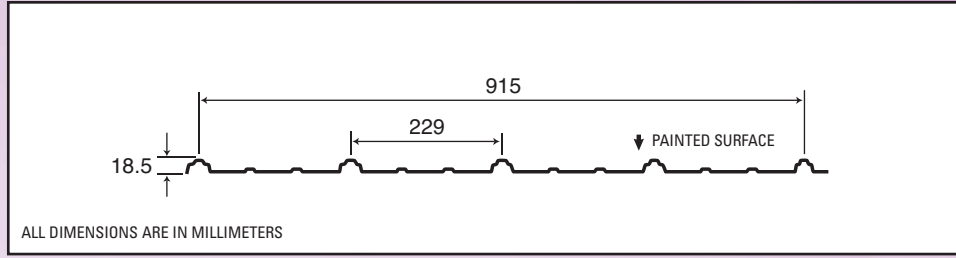
Maximum Specified Uniformly Distributed Loads in psf

Span (in.)		1-Span Base Steel Thickness (in.)			2-Span Base Steel Thickness (in.)			3-Span Base Steel Thickness (in.)		
		0.0135	0.0180	0.0240	0.0135	0.0180	0.0240	0.0135	0.0180	0.0240
18	S	168	122	161	132	105	145	165	132	182
	D	237	316	420	570	758	1007	449	597	793
24	S	94	69	91	74	59	82	93	74	102
	D	100	133	177	240	320	425	189	252	335
30	S	60	44	58	48	38	52	59	47	65
	D	51	68	91	123	164	217	97	129	171
36	S	42	31	40	33	26	36	41	33	45
	D	30	39	52	71	95	126	56	75	99
42	S	31	22	30	24	19	27	30	24	33
	D	19	25	33	45	60	79	35	47	62
48	S	24	17	23	19	15	20	23	19	26
	D	13	17	22	30	40	53	24	31	42
54	S		14	18	15	12	16	18	15	20
	D		12	16	21	28	37	17	22	29
60	S			15	12		13	15	12	16
	D			11	15		27	12	16	21
66	S						11			14
	D						20			16
72	S									11
	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
0.343	3.46	550	0.676	0.533	0.0113	0.646	0.162	1.15	0.196
0.457	4.52	230	0.895	0.772	0.0150	0.677	0.169	1.22	0.207
0.610	5.94	230	1.18	1.07	0.0199	1.26	0.314	2.28	0.388

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	0.457	0.610	0.343	0.457	0.610	0.343	0.457	0.610
400	S	10.4	7.72	10.2	8.20	6.66	9.19	10.3	8.3	11.5
	D	17.0	22.6	30.0	40.7	54.2	72.0	32.1	42.7	56.7
500	S	6.65	4.94	6.54	5.25	4.26	5.88	6.56	5.33	7.35
	D	8.69	11.6	15.4	20.9	27.7	36.9	16.4	21.9	29.0
600	S	4.62	3.43	4.54	3.64	2.96	4.08	4.55	3.70	5.10
	D	5.03	6.69	8.89	12.1	16.1	21.3	9.51	12.6	16.8
800	S	2.60	1.93	2.55	2.05	1.67	2.30	2.56	2.08	2.87
	D	2.12	2.82	3.75	5.09	6.77	9.00	4.01	5.33	7.09
1000	S	1.66	1.24	1.63	1.31	1.07	1.47	1.64	1.33	1.84
	D	1.09	1.44	1.92	2.61	3.47	4.61	2.05	2.73	3.63
1200	S	1.15	0.86	1.13	0.91	0.74	1.02	1.14	0.93	1.28
	D	0.63	0.84	1.11	1.51	2.01	2.67	1.19	1.58	2.10
1400	S		0.63	0.83	0.67	0.54	0.75	0.84	0.68	0.94
	D		0.53	0.70	0.95	1.26	1.68	0.75	1.00	1.32
1500	S			0.73	0.58		0.65	0.73	0.59	0.82
	D			0.57	0.77		1.37	0.61	0.81	1.08
1600	S				0.51		0.57	0.64	0.52	0.72
	D				0.64		1.12	0.50	0.67	0.89
1800	S									0.57
	D									0.62

Notes:

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