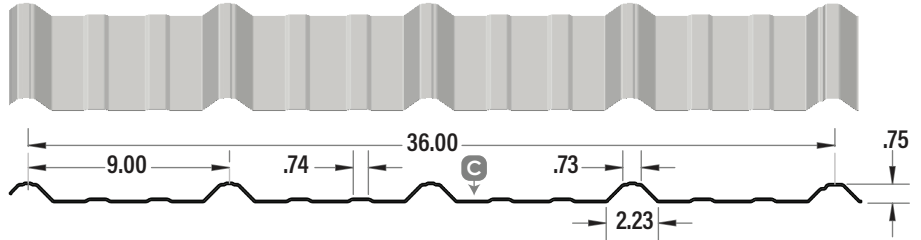




WF-ALLCLAD ROOF

Overlap

Underlap



All dimensions are in inches

SECTION PROPERTIES (PER FOOT OF WIDTH)

IMPERIAL	Base Steel Thickness (in.)	Weight G90 (psf)	Yield Stress (ksi)	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)					
	0.0135	0.684	80	0.0158	0.0135	0.0109	30.5	7.63	55.5	9.43
	0.0180	0.893	80	0.0227	0.0192	0.0147	57.3	14.3	105	17.8
	0.0240	1.17	33	0.0314	0.0278	0.0196	58.6	14.6	108	18.3

Live load factor = 1.5; Importance factor = 0.90; Importance Category = 1.0

MAXIMUM UNIFORMLY DISTRIBUTED SPECIFIED LOADS (PSF)

SPAN LENGTH (ft)		1-SPAN			2-SPAN			3-SPAN		
		BASE STEEL THICKNESS (in.)			BASE STEEL THICKNESS (in.)			BASE STEEL THICKNESS (in.)		
		0.0135	0.0180	0.0240	0.0135	0.0180	0.0240	0.0135	0.0180	0.0240
2.0	S	95	136	104	81	115	92	101	144	115
	D	132	178	237	317	428	569	250	337	448
2.5	S	61	87	66	52	74	59	65	92	73
	D	68	91	121	162	219	292	128	173	230
3.0	S	42	61	46	36	51	41	45	64	51
	D	39	53	70	94	127	169	74	100	133
3.5	S	31	44	34	26	38	30	33	47	37
	D	25	33	44	59	80	106	47	63	84
4.0	S	24	34	26	20	29	23	25	36	29
	D	17	22	30	40	53	71	31	42	56
4.5	S	19	27	20	16	23	18	20	28	23
	D	12	16	21	28	38	50	22	30	39
5.0	S	15	22	17	13	18	15	16	23	18
	D	8	11	15	20	27	36	16	22	29

Notes:

- 1 Based on ASTM A 653 structural steel. Coating can also be AZ50.
- 2 Values in row "S" are based on strength.
- 3 Values in row "D" are based on deflection of L/180.
- 4 For L/240, multiply values in row "D" by 0.75.
- 5 Web crippling not included in strength calculations. See Example.
- 6 Limit States Design principles were used in accordance with CSA S136-16.
- 7 Prepared by Dr. R.M. Schuster, P. Eng., Distinguished Professor Emeritus, University of Waterloo.



Canadian Sheet Steel Building Institute
A Division of the Canadian Institute of Steel Construction



WF-ALLCLAD ROOF

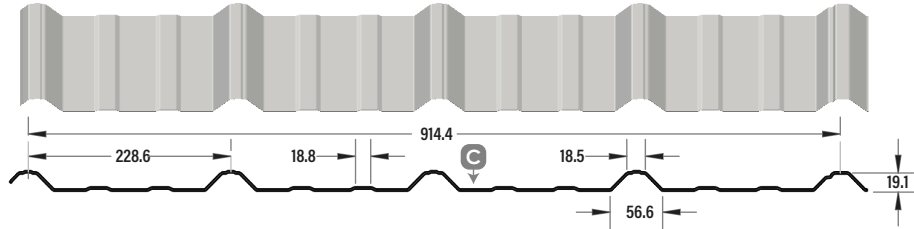
Overlap



Underlap



All dimensions are in millimeters



SECTION PROPERTIES (PER METRE OF WIDTH)

METRIC	Base Steel Thickness (mm)	Mass Z275 (kg/m ²)	Yield Stress (MPa)	Sec. Modulus		Deflection Moment of Inertia (x10 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)
				(x10 ³ mm ³)	(x10 ³ mm ³)					
	0.343	3.34	550	0.850	0.726	0.0149	0.444	0.111	0.807	0.137
	0.457	4.36	550	1.22	1.03	0.0201	0.833	0.208	1.53	0.259
	0.610	5.72	230	1.69	1.49	0.0267	0.864	0.216	1.59	0.271

Live load factor = 1.5; Importance factor = 0.90; Importance Category = 1.0

MAXIMUM UNIFORMLY DISTRIBUTED SPECIFIED LOADS (kPa)

SPAN LENGTH (mm)		1-SPAN			2-SPAN			3-SPAN		
		BASE STEEL THICKNESS (mm)			BASE STEEL THICKNESS (mm)			BASE STEEL THICKNESS (mm)		
		0.343	0.457	0.610	0.343	0.457	0.610	0.343	0.457	0.610
500	S	6.73	9.7	7.46	5.75	8.18	6.59	7.19	10.2	8.23
	D	11.5	15.5	20.6	27.5	37.1	49.4	21.7	29.2	38.9
600	S	4.67	6.71	5.18	3.99	5.68	4.57	4.99	7.10	5.72
	D	6.63	8.95	11.9	15.9	21.5	28.6	12.5	16.9	22.5
800	S	2.63	3.78	2.91	2.25	3.20	2.57	2.81	3.99	3.22
	D	2.80	3.78	5.03	6.71	9.06	12.1	5.29	7.14	9.50
1000	S	1.68	2.42	1.86	1.44	2.04	1.65	1.80	2.56	2.06
	D	1.43	1.93	2.57	3.44	4.64	6.18	2.71	3.65	4.86
1200	S	1.17	1.68	1.29	1.00	1.42	1.14	1.25	1.78	1.43
	D	0.83	1.12	1.49	1.99	2.69	3.57	1.57	2.12	2.81
1400	S	0.86	1.23	0.95	0.73	1.04	0.84	0.92	1.30	1.05
	D	0.52	0.70	0.94	1.25	1.69	2.25	0.99	1.33	1.77
1500	S	0.75	1.07	0.83	0.64	0.91	0.73	0.80	1.14	0.91
	D	0.42	0.57	0.76	1.02	1.38	1.83	0.80	1.08	1.44
1600	S	0.66	0.94	0.73	0.56	0.80	0.64	0.70	1.00	0.80
	D	0.35	0.47	0.63	0.84	1.13	1.51	0.66	0.89	1.19

Notes:

- 1 Based on ASTM A 653M structural steel. Coating can also be AZM150.
- 2 Values in row "S" are based on strength.
- 3 Values in row "D" are based on deflection of L/180.
- 4 For L/240, multiply values in row "D" by 0.75.
- 5 Web crippling not included in strength calculations. See Example.
- 6 Limit States Design principles were used in accordance with CSA S136-16.
- 7 Prepared by Dr. R.M. Schuster, P. Eng., Distinguished Professor Emeritus, University of Waterloo.



Canadian Sheet Steel Building Institute
A Division of the Canadian Institute of Steel Construction