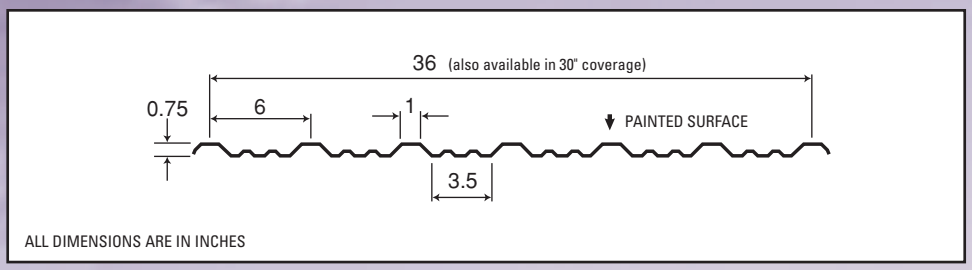
Wall Cladding and Liner Panel — Diamond Rib



Section Properties (Per Foot of Width)

Base Steel Thickness	Weight G90	Yield Stress	Section Modulus		Deflection Moment of Inertia	Specified Web Crippling Data (lb)			
			Mid Span	Support		End	End	Interior	Interior
(in.)	(psf)	(ksi)	(in^3)	(in^3)	Mid Span (in^4)	P_{e1}	P_{e2}	P_{i1}	P_{i2}
0.0120	0.64	33	0.0221	0.0202	0.0144	21.9	5.46	43.5	7.40
0.0135	0.71	80	0.0227	0.0203	0.0152	61.1	15.3	121	20.6
0.0180	0.93	33	0.0381	0.0361	0.0227	52.9	13.2	104	17.7
0.0240	1.22	33	0.0550	0.0498	0.0302	97.9	24.5	191	32.5
0.0300	1.51	33	0.0683	0.0637	0.0376	157	39.3	306	52.0

Load Table

Live Load Factor = 1.4; Importance Factor ($I_{W\text{-}SLS}$) = 0.75; Importance Factor ($I_{W\text{-}ULS}$) = 1.0

Maximum Specified Uniformly Distributed Loads in psf

Span		1-Span Base Steel Thickness (in.)					2-Span Base Steel Thickness (in.)					3-Span Base Steel Thickness (in.)				
(ft.)		0.0120	0.0135	0.0180	0.0240	0.0300	0.0120	0.0135	0.0180	0.0240	0.0300	0.0120	0.0135	0.0180	0.0240	0.0300
1′-4″	S	176	390	303	438	543	161	348	288	397	507	201	435	359	496	634
	D	705	744	1112	1480	1847	1693	1786	2669	3553	4434	1333	1406	2102	2798	3492
1′-8″	S	113	250	194	280	348	103	223	184	254	324	129	278	230	317	405
	D	361	381	569	758	946	867	914	1366	1819	2270	682	720	1076	1432	1788
2′-0″	S	78	173	135	194	241	72	155	128	176	225	89	193	160	220	282
	D	209	220	329	439	547	502	529	791	1053	1314	395	417	623	829	1035
2′-6″	S	50	111	86	124	154	46	99	82	113	144	57	124	102	141	180
	D	107	113	169	225	280	257	271	405	539	673	202	213	319	424	530
3′-0″	S	35	77	60	86	107	32	69	57	78	100	40	86	71	98	125
	D	62	65	98	130	162	149	157	234	312	389	117	123	185	246	307
3′-6″	S	26	57	44	64	79	23	50	42	58	74	29	63	52	72	92
	D	39	41	61	82	102	94	99	148	196	245	74	78	116	155	193
4′-0″	S	20	43	34	49	60	18	39	32	44	56	22	48	40	55	70
	D	26	28	41	55	68	63	66	99	132	164	49	52	78	104	129
4′-6″	S	15	34	27	38	48	14	31	25	35	44	18	38	32	44	56
	D	18	19	29	39	48	44	46	69	92	115	35	37	55	73	91
5′-0″	S	13	28	22	31	39	11	25	20	28	36	14	31	26	35	45
	D	13	14	21	28	35	32	34	51	67	84	25	27	40	53	66
5′-6″	S	10	23	18	26	32		20	17	23	30	12	26	21	29	37
	D	10	11	16	21	26		25	38	51	63	19	20	30	40	50
6′-0″	S			15	22	27		17	14	20	25		21	18	24	31
	D			12	16	20		20	29	39	49		15	23	31	38
6′-6″	S				18	23		15	12	17	21		18	15	21	27
	D				13	16		15	23	31	38		12	18	24	30
7′-0″	S				16	20		13	10	14	18			13	18	23
	D				10	13		12	18	25	31			15	19	24

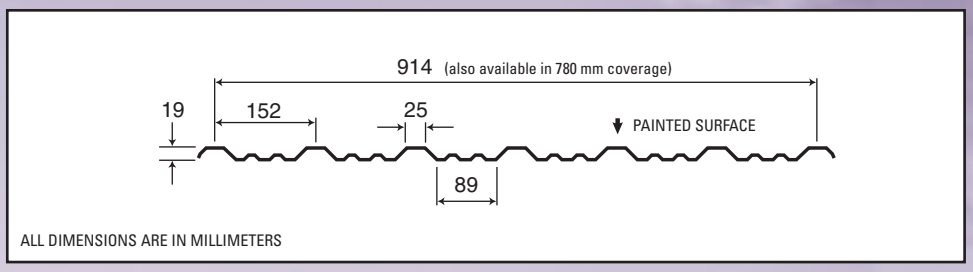
Notes:

1. Steel conforms to ASTM A653.
2. Section properties are in accordance with CSA-S136-07.
3. Values in row "S" are based on strength.
4. Values in row "D" are based on a deflection limit of 1/180 of the span.
5. Web crippling not included in strength values. See example calculation in notes to designer.
6. Contact the sales department for stocked colours and gauges.
7. 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.

METRIC

Diamond Rib

Wall Cladding and Liner Panel



ALL DIMENSIONS ARE IN MILLIMETERS

Section Properties

(Per Metre of Width)

Base Steel Thickness	Mass Z275	Yield Stress	Section Modulus		Deflection Moment of Inertia	Specified Web Crippling Data (kN)			
			Mid Span	Support		End	End	Interior	Interior
(mm)	(kg/m^2)	(MPa)	($x10^3 mm^3$)	($x10^3 mm^3$)	Mid Span ($x10^6 mm^4$)	P_{e1}	P_{e2}	P_{i1}	P_{i2}
0.305	3.11	230	1.19	1.09	0.0196	0.322	0.081	0.642	0.109
0.343	3.46	550	1.22	1.09	0.0207	0.889	0.222	1.76	0.300
0.457	4.52	230	2.04	1.94	0.0309	0.780	0.195	1.53	0.261
0.610	5.94	230	2.96	2.68	0.0412	1.45	0.361	2.82	0.480
0.762	7.36	230	3.67	3.42	0.0514	2.32	0.580	4.51	0.767

Notes:

1. Steel conforms to ASTM A653M.
2. Section properties are in accordance with CSA-S136-07.
3. Values in row "S" are based on strength.
4. Values in row "D" are based on a deflection limit of 1/180 of the span.
5. Web crippling not included in strength values. See example calculation in notes to designer.
6. Contact the sales department for stocked colours and gauges.
7. 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.

Load Table

Live Load Factor = 1.4; Importance Factor ($I_{W\text{-}SLS}$) = 0.75; Importance Factor ($I_{W\text{-}ULS}$) = 1.0

Maximum Specified Uniformly Distributed Loads in kPa

Span		1-Span Base Steel Thickness (mm)					2-Span Base Steel Thickness (mm)					3-Span Base Steel Thickness (mm)				
(mm)		0.305	0.343	0.457	0.610	0.762	0.305	0.343	0.457	0.610	0.762	0.305	0.343	0.457	0.610	0.762
400	S	8.78	19.2	15.1	21.9	27.1	8.03	17.2	14.4	19.8	25.3	10.0	21.4	17.9	24.8	31.6
	D	35.4	37.4	55.8	74.3	92.8	84.9	89.7	134	178	223	66.9	70.7	106	140	175
500	S	5.62	12.3	9.67	14.0	17.4	5.14	11.0	9.19	12.7	16.2	6.42	13.7	11.5	15.8	20.3
	D	18.1	19.1	28.6	38.1	47.5	43.5	45.9	68.6	91.3	114	34.2	36.2	54.0	71.9	89.8
600	S	3.90	8.55	6.72	9.72	12.1	3.57	7.62	6.38	8.80	11.3	4.46	9.53	7.98	11.0	14.1
	D	10.48	11.1	16.5	22.0	27.5	25.2	26.6	39.7	52.9	66.0	19.8	20.9	31.3	41.6	52.0
800	S	2.20	4.81	3.78	5.47	6.78	2.01	4.29	3.59	4.95	6.33	2.51	5.36	4.49	6.19	7.91
	D	4.42	4.67	6.98	9.29	11.6	10.6	11.2	16.8	22.3	27.8	8.36	8.83	13.2	17.6	21.9
1000	S	1.40	3.08	2.42	3.50	4.34	1.28	2.74	2.30	3.17	4.05	1.61	3.43	2.87	3.96	5.06
	D	2.26	2.39	3.57	4.76	5.94	5.43	5.74	8.58	11.4	14.25	4.28	4.52	6.75	8.99	11.2
1200	S	0.98	2.14	1.68	2.43	3.01	0.89	1.91	1.60	2.20	2.81	1.11	2.38	1.99	2.75	3.52
	D	1.31	1.38	2.07	2.75	3.44	3.14	3.32	4.96	6.61	8.25	2.48	2.62	3.91	5.20	6.49
1400	S	0.72	1.57	1.23	1.78	2.21	0.66	1.40	1.17	1.62	2.07	0.82	1.75	1.46	2.02	2.58
	D	0.83	0.87	1.30	1.73	2.16	1.98	2.09	3.13	4.16	5.19	1.56	1.65	2.46	3.28	4.09
1500	S	0.62	1.37	1.07	1.55	1.93	0.57	1.22	1.02	1.41	1.80	0.71	1.52	1.28	1.76	2.25
	D	0.67	0.71	1.06	1.41	1.76	1.61	1.70	2.54	3.38	4.22	1.27	1.34	2.00	2.66	3.32
1600	S	0.55	1.20	0.94	1.37	1.70	0.50	1.07	0.90	1.24	1.58	0.63	1.34	1.12	1.55	1.98
	D	0.55	0.58	0.87	1.16	1.45	1.33	1.40	2.09	2.79	3.48	1.04	1.10	1.65	2.20	2.74
1800	S			0.75	1.08	1.34		0.85	0.71	0.98	1.25		1.06	0.89	1.22	1.56
	D			0.61	0.82	1.02		0.98	1.47	1.96	2.44		0.78	1.16	1.54	1.92
2000	S				0.87	1.09		0.69	0.57	0.79	1.01		0.86	0.72	0.99	1.27
	D				0.59	0.74		0.72	1.07	1.43	1.78		0.57	0.84	1.12	1.40