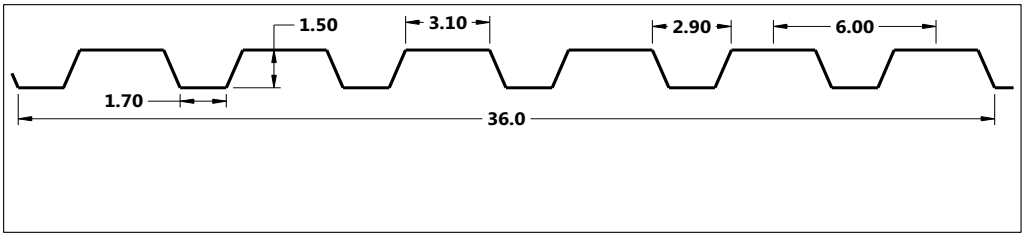
ACCUFORM METAL LTD. ACOUSTIC 15-36 ROOF DECK



SECTION PROPERTIES (PER FOOT OF WIDTH)

	Base Steel Thickness (in.)	Weight G90 (psf)	Yield Stress (ksi)	Sec. Modulus Midspan (in^3)	Sec. Modulus Support (in^3)	Deflection Moment of Inertia (in^4)	Specified Web Crippling Data P_{e1} End (lb)	P_{e2} End (lb)	P_{i1} Interior (lb)	P_{i2} Interior (lb)
IMPERIAL	0.030	1.69	33	0.190	0.189	0.173	179	44.8	343	58.4
	0.036	2.02	33	0.233	0.241	0.216	265	66.2	506	86.1
	0.048	2.67	33	0.318	0.325	0.295	488	122	930	158
	0.060	3.32	33	0.400	0.402	0.367	780	195	1486	253

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

MAXIMUM UNIFORMLY DISTRIBUTED SPECIFIED LOAD (psf)

SPAN LENGTH (ft)		1-SPAN BASE STEEL THICKNESS (in.)				2-SPAN BASE STEEL THICKNESS (in.)				3-SPAN BASE STEEL THICKNESS (in.)			
		0.030	0.036	0.048	0.060	0.030	0.036	0.048	0.060	0.030	0.036	0.048	0.060
4.0	S	149	183	249	314	148	189	255	315	185	236	318	393
	D	262	327	446	556	628	784	1071	1334	495	617	844	1050
4.5	S	118	144	197	248	117	149	201	249	147	186	251	311
	D	184	229	313	390	441	550	752	937	347	433	592	738
5.0	S	95	117	159	201	95	121	163	201	119	151	204	252
	D	134	167	229	284	322	401	548	683	253	316	432	538
5.5	S	79	97	132	166	78	100	135	166	98	125	168	208
	D	101	126	172	214	242	301	412	513	190	237	324	404
6.0	S	66	81	111	139	66	84	113	140	82	105	141	175
	D	78	97	132	165	186	232	317	395	147	183	250	311
6.5	S	57	69	94	119	56	71	96	119	70	89	120	149
	D	61	76	104	129	146	183	250	311	115	144	197	245
7.0	S	49	60	81	102	48	62	83	103	61	77	104	128
	D	49	61	83	104	117	146	200	249	92	115	157	196
7.5	S	42	52	71	89	42	54	72	90	53	67	91	112
	D	40	50	68	84	95	119	162	202	75	94	128	159
8.0	S	37	46	62	78	37	47	64	79	46	59	80	98
	D	33	41	56	69	79	98	134	167	62	77	105	131
8.5	S	33	40	55	69	33	42	56	70	41	52	70	87
	D	27	34	47	58	65	82	112	139	52	64	88	109
9.0	S	29	36	49	62	29	37	50	62	37	47	63	78
	D	23	29	39	49	55	69	94	117	43	54	74	92
9.5	S	26	32	44	56	26	33	45	56	33	42	56	70
	D	20	24	33	41	47	58	80	100	37	46	63	78
10.0	S	24	29	40	50	24	30	41	50	30	38	51	63
	D	17	21	29	36	40	50	69	85	32	39	54	67
10.5	S	22	27	36	46	22	27	37	46	27	34	46	57
	D	14	18	25	31	35	43	59	74	27	34	47	58
11.0	S	20	24	33	41	20	25	34	42	25	31	42	52
	D	13	16	21	27	30	38	52	64	24	30	41	50

Notes:

1. Based on ASTM A653 Grade 33 structural steel.
2. Values in row "S" are based on strength.
3. Values in row "D" are based on deflection of 1/180th span.
4. Bending strength and stiffness considerations were based on CSSBI Sheet Steel Facts 27, September 2010.
5. Web crippling stregth consideration was based on CSSBI Sheet Steel Facts 30, September 2010.
6. Web crippling not included in strength calculations. See Example.
7. Limit States Design principles were used in accordance with CSA Standard S136-16.
8. Prepared by Dr. R.M. Schuster, P. Eng., Distinguished Professor Emeritus, University of Waterloo.

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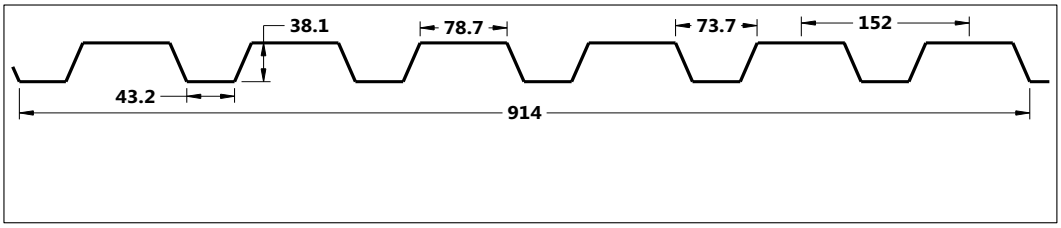

SECTION PROPERTIES (PER METRE OF WIDTH)

METRIC	Base Steel Thickness (mm)	Mass Z275 (kg/m^2)	Yield Stress (MPa)	Sec. Modulus Midspan ($x10^3$ mm^3)	Sec. Modulus Support ($x10^3$ mm^3)	Deflection Moment of Inertia ($x10^6 mm^4$)	Specified Web Crippling Data P_{e1} End (kN)	P_{e2} End (kN)	P_{i1} Interior (kN)	P_{i2} Interior (kN)
	0.762	8.25	230	10.2	10.2	0.236	2.64	0.660	5.06	0.861
	0.914	9.85	230	12.5	12.9	0.294	3.90	0.976	7.47	1.27
	1.22	13.0	230	17.1	17.5	0.402	7.19	1.80	13.7	2.33
	1.52	16.2	230	21.5	21.6	0.501	11.5	2.88	21.9	3.73

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

MAXIMUM UNIFORMLY DISTRIBUTED SPECIFIED LOAD (kPa)

SPAN LENGTH (m)		1-SPAN BASE STEEL THICKNESS (mm)					2-SPAN BASE STEEL THICKNESS (mm)					3-SPAN BASE STEEL THICKNESS (mm)				
		0.762	0.914	1.22	1.52		0.762	0.914	1.22	1.52		0.762	0.914	1.22	1.52	
1.2	S	7.44	9.13	12.4	15.7		7.40	9.40	12.7	15.7		9.25	11.8	15.9	19.7	
	D	13.1	16.4	22.4	27.9		31.5	39.3	53.8	67.0		24.8	31.0	42.4	52.7	
1.4	S	5.46	6.71	9.13	11.5		5.43	6.91	9.34	11.6		6.79	8.63	11.7	14.4	
	D	8.27	10.3	14.1	17.6		19.8	24.8	33.9	42.2		15.6	19.5	26.7	33.2	
1.6	S	4.18	5.13	6.99	8.81		4.16	5.29	7.15	8.84		5.20	6.61	8.94	11.1	
	D	5.54	6.91	9.45	11.8		13.3	16.6	22.7	28.3		10.5	13.1	17.9	22.3	
1.8	S	3.30	4.06	5.52	6.96		3.29	4.18	5.65	6.99		4.11	5.22	7.07	8.73	
	D	3.89	4.85	6.64	8.27		9.33	11.7	15.9	19.8		7.35	9.17	12.6	15.6	
2.0	S	2.68	3.29	4.47	5.64		2.66	3.38	4.58	5.66		3.33	4.23	5.72	7.08	
	D	2.84	3.54	4.84	6.03		6.80	8.49	11.6	14.5		5.36	6.69	9.15	11.4	
2.2	S	2.21	2.72	3.70	4.66		2.20	2.80	3.78	4.68		2.75	3.50	4.73	5.85	
	D	2.13	2.66	3.64	4.53		5.11	6.38	8.73	10.9		4.03	5.02	6.87	8.56	
2.4	S	1.86	2.28	3.11	3.92		1.85	2.35	3.18	3.93		2.31	2.94	3.97	4.91	
	D	1.64	2.05	2.80	3.49		3.94	4.91	6.72	8.37		3.10	3.87	5.29	6.59	
2.6	S	1.58	1.94	2.65	3.34		1.58	2.00	2.71	3.35		1.97	2.50	3.39	4.19	
	D	1.29	1.61	2.20	2.74		3.10	3.86	5.29	6.58		2.44	3.04	4.16	5.18	
2.8	S	1.37	1.68	2.28	2.88		1.36	1.73	2.34	2.89		1.70	2.16	2.92	3.61	
	D	1.03	1.29	1.76	2.20		2.48	3.09	4.23	5.27		1.95	2.44	3.33	4.15	
3.0	S	1.19	1.46	1.99	2.51		1.18	1.50	2.03	2.52		1.48	1.88	2.54	3.14	
	D	0.84	1.05	1.43	1.79		2.02	2.52	3.44	4.29		1.59	1.98	2.71	3.38	
3.2	S	1.05	1.28	1.75	2.20		1.04	1.32	1.79	2.21		1.30	1.65	2.24	2.76	
	D	0.69	0.86	1.18	1.47		1.66	2.07	2.84	3.53		1.31	1.63	2.23	2.78	
3.4	S	0.93	1.14	1.55	1.95		0.92	1.17	1.58	1.96		1.15	1.46	1.98	2.45	
	D	0.58	0.72	0.99	1.23		1.39	1.73	2.36	2.94		1.09	1.36	1.86	2.32	
3.6	S	0.83	1.01	1.38	1.74		0.82	1.04	1.41	1.75		1.03	1.31	1.77	2.18	
	D	0.49	0.61	0.83	1.03		1.17	1.46	1.99	2.48		0.92	1.15	1.57	1.95	
3.8	S	0.74	0.91	1.24	1.56		0.74	0.94	1.27	1.57		0.92	1.17	1.59	1.96	
	D	0.41	0.52	0.71	0.88		0.99	1.24	1.69	2.11		0.78	0.97	1.33	1.66	
4.0	S	0.67	0.82	1.12	1.41		0.67	0.85	1.14	1.42		0.83	1.06	1.43	1.77	
	D	0.35	0.44	0.61	0.75		0.85	1.06	1.45	1.81		0.67	0.84	1.14	1.42	

Notes:

1. Based on ASTM A653M Grade 230 structural steel.
2. Values in row "S" are based on strength.
3. Values in row "D" are based on deflection of 1/180th span.
4. Bending strength and stiffness considerations were based on CSSBI Sheet Steel Facts 27, September 2010.
5. Web crippling stregth consideration was based on CSSBI Sheet Steel Facts 30, September 2010.
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