PBU Wall and Roof Panel Tables

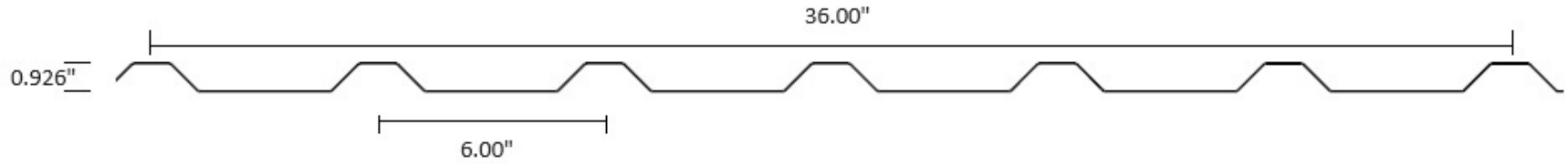

Table 1A – Section Properties and Flexural Resistance (Bare Panel)

							ASD (Ω = 1.67) (Ω = 2.00 for 29 gage)			
Profile	Gage Number	Design Thickness (inches)	Weight (psf)	F_y ksi	S_{e+} (inch^3) per foot	S_{e-} (inch^3) per foot	M_p/Ω inch-lbs per ft	M_n/Ω inch-lbs per foot	I_{d+} (inch^4) per ft.	I_{d-} (inch^4) per ft.
PBU	29	0.0142	0.7	80	0.031	0.029	942	869	0.024	0.020
PBU	26	0.0187	0.9	80	0.052	0.045	1881	1620	0.035	0.028
PBU	24	0.0236	1.2	50	0.073	0.066	2187	1980	0.046	0.037
PBU	22	0.0296	1.4	50	0.095	0.088	2854	2626	0.060	0.049

Table 1A Notes:

1. All section properties and ASD flexural strengths are calculated in accordance with AISI S100-2012 and AISI S100-2016

Table 1B – Shear and Web Crippling (Bare Panel)

				Web Crippling (R_n/Ω), lbs/ft One Flange Loading End Bearing			Web Crippling (R_n/Ω), lbs/ft One Flange Loading Interior Bearing		
Profile	Gage Number	V_n/Ω lbs per ft	F_y ksi	1-1/2”	2”	3”	1-1/2”	2”	3”
PBU	29	762	80	168	187	218	230	253	290
PBU	26	1305	80	278	307	357	391	428	489
PBU	24	1473	50	353	389	450	508	553	629
PBU	22	1843	50	531	584	672	779	845	956

Table 1B Notes:

1. All section properties and ASD flexural strengths are calculated in accordance with AISI S100-2012 and AISI S100-2016

Table 2 – PBU Panel (Bare Panel)

Table 2.1 PBU Panel ASD Uniform Downward Loads (psf)

Span Cond.	Gage Number	3'-00"	3"-06"	4'-00"	4'-06"	5'-00"	5'-06"	6'-00"	6'-06"	7-00"	7'-06"	8'-00"
Single	29	70	51	39	31	25	21	17	15	13	11	10
	26	139	102	78	62	50	41	35	30	26	22	20
	24	162	119	91	72	58	48	40	35	30	26	23
	22	211	155	119	94	76	63	53	45	39	34	30
Double	29	64	47	36	29	23	19	16	14	12	10	9
	26	120	88	68	53	43	36	30	26	22	19	17
	24	147	108	83	65	53	44	37	31	27	23	21
	22	194	143	109	86	70	58	49	41	36	31	27
Triple	29	80	59	45	36	29	24	20	17	15	13	11
	26	150	110	84	67	54	45	38	32	28	24	21
	24	183	135	103	81	66	55	46	39	34	29	26
	22	243	179	137	108	88	72	61	52	45	39	34

Table 2.2 PBU Panel ASD Uniform Upward Loads (psf)

Span Cond.	Gage Number	3'-00"	3"-06"	4'-00"	4'-06"	5'-00"	5'-06"	6'-00"	6'-06"	7-00"	7'-06"	8'-00"
Single	29	64	47	36	29	23	19	16	14	12	10	9
	26	120	88	68	53	43	36	30	26	22	19	17
	24	147	108	83	65	53	44	37	31	27	23	21
	22	194	143	109	86	70	58	49	41	36	31	27
Double	29	70	51	39	31	25	21	17	15	13	11	10
	26	139	102	78	62	50	41	35	30	26	22	20
	24	162	119	91	72	58	48	40	35	30	26	23
	22	211	155	119	94	76	63	53	45	39	34	30
Triple	29	87	64	49	39	31	26	22	19	16	14	12
	26	174	128	98	77	63	52	44	37	32	28	24
	24	202	149	114	90	73	60	51	43	37	32	28
	22	264	194	149	117	95	79	66	56	49	42	37

Tables 2.1 and 2.2 Notes:

1. All section properties and ASD uniform loads are calculated in accordance with AISI S100-2012 and AISI S100-2016.
2. Loads shown in tables are uniformly distributed superimposed loads in psf. Span length assumes center-to-center spacing of supports. Tabulated loads shall not be increased by assuming clear span dimensions.
3. Bending Moment formulae used for flexural stress limitations are:

   Simple and Two Span $M = \frac{w\lambda^2}{8}$

   Three Span or More $M = \frac{w\lambda^2}{10}$

4. Web crippling and shear have not been accounted for in these tables. Required bearing should be determined based on specific span conditions.

Table 2.3 PBU Panel Uniform Service Load that Causes L/180 Deflection (psf)

Span Cond.	Gage Number	3'-00"	3"-06"	4'-00"	4'-06"	5'-00"	5'-06"	6'-00"	6'-06"	7-00"	7'-06"	8'-00"
Single	29	64	41	27	19	14	10	8	6	5	4	3
	26	91	57	38	27	20	15	11	9	7	6	5
	24	120	75	50	35	26	19	15	12	9	8	6
	22	159	100	67	47	34	26	20	16	12	10	8
Double	29	155	98	65	46	34	25	19	15	12	10	8
	26	219	138	93	65	47	36	27	22	17	14	12
	24	288	181	121	85	62	47	36	28	23	18	15
	22	382	240	161	113	82	62	48	38	30	24	20
Triple	29	122	77	51	36	26	20	15	12	10	8	6
	26	172	108	72	51	37	28	21	17	14	11	9
	24	225	142	95	67	49	37	28	22	18	14	12
	22	299	188	126	88	65	48	37	29	24	19	16

Table 2.3 Notes:

1. For loads that cause L/60 Deflection, multiply by 2.0. For loads that cause L/120 Deflection, multiply by 1.5. For loads that cause L/240 Deflection, multiply by 0.75. For loads that cause L/360 Deflection, multiply by 0.50.