PBR Wall and Roof Panel Tables

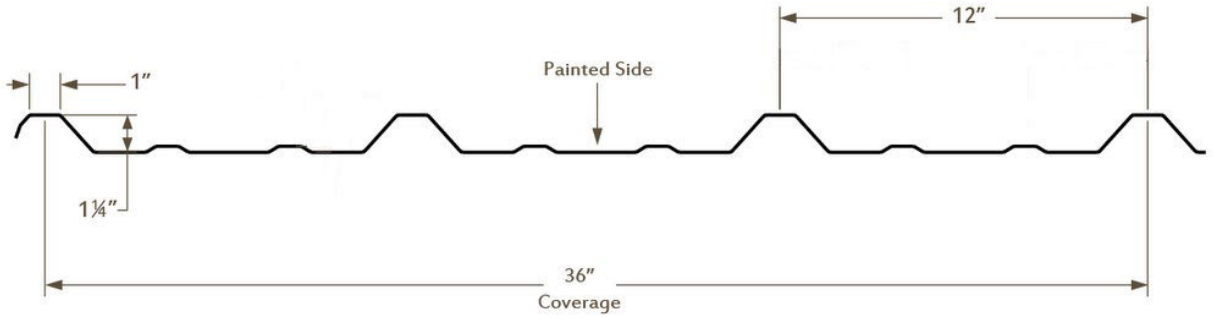

Table 1A – Section Properties and Flexural Resistance (Bare Panel)

							ASD (Ω = 1.67)			
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.
PBR	29	0.0142	0.7	80	0.026	0.038	947	1140	0.031	0.031
PBR	26	0.0187	0.9	80	0.042	0.051	1504	1826	0.046	0.043
PBR	24	0.0236	1.2	50	0.063	0.066	1889	1980	0.063	0.056
PBR	22	0.0296	1.4	50	0.087	0.083	2597	2489	0.083	0.072

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”
PBR	29	269	80	104	115	134	159	175	202
PBR	26	616	80	172	190	221	267	291	333
PBR	24	1003	50	219	241	279	342	373	424
PBR	22	1529	50	330	363	417	520	564	638

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 – PBR Panel (Bare Panel)

Table 2.1 PBR 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	52	39	31	25	21	18	15	13	11	10
	26	111	82	63	50	40	33	28	24	20	18	16
	24	140	103	79	62	50	42	35	30	26	22	20
	22	192	141	108	85	69	57	48	41	35	31	27
Double	29	84	62	48	38	30	25	21	18	16	14	12
	26	135	99	76	60	49	40	34	29	25	22	19
	24	147	108	83	65	53	44	37	31	27	23	21
	22	184	135	104	82	66	55	46	39	34	29	26
Triple	29	106	78	59	47	38	31	26	22	19	17	15
	26	169	124	95	75	61	50	42	36	31	27	24
	24	183	135	103	81	66	55	46	39	34	29	26
	22	230	169	130	102	83	69	58	49	42	37	32

Table 2.2 PBR 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	84	62	48	38	30	25	21	18	16	14	12
	26	135	99	76	60	49	40	34	29	25	22	19
	24	147	108	83	65	53	44	37	31	27	23	21
	22	184	135	104	82	66	55	46	39	34	29	26
Double	29	70	52	39	31	25	21	18	15	13	11	10
	26	111	82	63	50	40	33	28	24	20	18	16
	24	140	103	79	62	50	42	35	30	26	22	20
	22	192	141	108	85	69	57	48	41	35	31	27
Triple	29	88	64	49	39	32	26	22	19	16	14	12
	26	139	102	78	62	50	41	35	30	26	22	20
	24	175	129	98	78	63	52	44	37	32	28	25
	22	240	177	135	107	87	72	60	51	44	38	34

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 $M = \frac{wl^2}{8}$

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

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 PBR 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	102	64	43	30	22	16	13	10	8	7	5
	26	139	88	59	41	30	23	17	14	11	9	7
	24	183	115	77	54	40	30	23	18	14	12	10
	22	234	147	99	69	51	38	29	23	18	15	12
Double	29	245	154	103	72	53	40	31	24	19	16	13
	26	335	211	141	99	72	54	42	33	26	21	18
	24	441	277	186	131	95	72	55	43	35	28	23
	22	564	355	238	167	122	91	70	55	44	36	30
Triple	29	191	121	81	57	41	31	24	19	15	12	10
	26	262	165	111	78	57	43	33	26	21	17	14
	24	345	217	145	102	74	56	43	34	27	22	18
	22	441	278	186	131	95	72	55	43	35	28	23

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.