

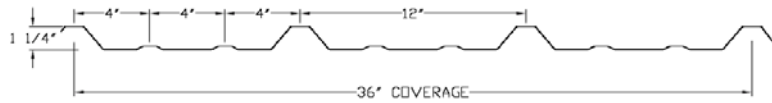


## TECHNICAL BULLETIN

Issue Date : June 1, 2006

No. 07-241-06

### PBR-Panel



SECTION PROPERTIES						TOP IN COMPRESSION			BOTTOM IN COMPRESSION		
GAUGE	FY (KSI)	WEIGHT (PSF)	V <sub>a</sub> kip/ft.	P <sub>a_end</sub> lbs/ft.	P <sub>a_int</sub> lbs/ft.	I <sub>x</sub> (in. <sup>4</sup> /ft.)	S <sub>e</sub> (in. <sup>3</sup> /ft.)	M <sub>a</sub> kip-in./ft.	I <sub>x</sub> (in. <sup>4</sup> /ft.)	S <sub>e</sub> (in. <sup>3</sup> /ft.)	M <sub>a</sub> kip-in./ft.
22	50.0	1.49	1.4448	366.36	674.86	0.0800	0.0848	2.5400	0.0633	0.1237	2.4100

- Section properties are calculated in accordance with the 2001 AISI North American Specification for the Design of Cold-Formed Steel Structural Members.
- V<sub>a</sub> is the allowable shear.
- P<sub>a</sub> is the allowable load for web crippling on end & interior supports.
- I<sub>x</sub> is for deflection determination.
- S<sub>e</sub> is for bending.
- M<sub>a</sub> is the allowable bending moment.
- All values are for one foot of panel width.

### Allowable Uniform Loads (PSF)

Span Type	Load Type	Span in Feet															
		1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00
Single	Positive Wind	752	423	270	188	138	105	83	67	55	47	40	34	30	26	23	20
	Negative Wind	714	401	257	178	131	100	79	64	53	44	38	32	28	25	22	19
	Live	752	423	270	188	138	105	83	67	55	47	40	34	30	26	23	20
	Deflection (L/180)	2071	874	447	258	163	109	76	55	42	32	25	20	16	13	11	9
	Deflection (L/240)	1553	655	335	194	122	81	57	41	31	24	19	15	12	10	8	7
2 Span	Positive Wind	647	379	247	173	128	98	78	63	52	44	37	32	28	25	22	19
	Negative Wind	676	397	260	182	135	104	82	67	55	46	39	34	29	26	23	20
	Live	647	379	247	173	128	98	78	63	52	44	37	32	28	25	22	19
	Deflection (L/180)	4469	1885	965	558	351	235	165	120	90	69	54	43	35	29	24	20
	Deflection (L/240)	3352	1414	724	419	263	176	124	90	68	52	41	32	26	22	18	15
3 Span	Positive Wind	780	463	304	214	159	122	97	79	65	55	47	40	35	31	27	24
	Negative Wind	811	484	319	225	167	129	102	83	69	58	49	42	37	32	29	26
	Live	780	463	304	214	159	122	97	79	65	55	47	40	35	31	27	24
	Deflection (L/180)	3501	1477	756	437	275	184	129	94	71	54	43	34	28	23	19	16
	Deflection (L/240)	2626	1107	567	328	206	138	97	70	53	41	32	25	21	17	14	12
4 Span	Positive Wind	737	436	286	201	149	114	91	74	61	51	44	38	33	29	25	23
	Negative Wind	768	456	299	211	156	120	95	77	64	54	46	40	34	30	27	24
	Live	737	436	286	201	149	114	91	74	61	51	44	38	33	29	25	23
	Deflection (L/180)	3717	1568	802	464	292	196	137	100	75	58	45	36	29	24	20	17
	Deflection (L/240)	2787	1176	602	348	219	147	103	75	56	43	34	27	22	18	15	12

Notes:

- Allowable uniform loads are based upon equal span lengths.
- Positive Wind is wind pressure and is **NOT** increased by 33 1/3 %.
- Negative Wind is wind suction or uplift and is **NOT** increased by 33 1/3%.
- Live is the allowable live or snow load.
- Deflection (L/180) is the allowable load that limits the panel's deflection to L/180 while under positive or live load.
- Deflection (L/240) is the allowable load that limits the panel's deflection to L/240 while under positive or live load.
- The weight of the panel has **NOT** been deducted from the allowable loads.
- Positive Wind, Negative Wind, and Live Load values are limited to combined shear & bending using Eq. C3.3.1-1 of the AISI Specification.
- Positive Wind and Live Load values are limited by web crippling using a bearing length of 2".
- Web crippling values are determined using a ratio of the uniform load **actually** supported by the top flanges of the section.

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