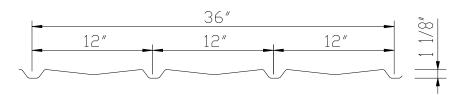


# **PBA Panel Properties**



Section Properties												
			Top Flat In	Compress	ion	Bottom Flat In Compression						
Panel gauge	Fy (ksi)	Weight (psf)	lx(in^4)	Sx (in^3/ft.)	Ma (kip-in)	lx(in^4)	Sx (in^3/ft.)	Ma (kip-in)				
29	60*	0.02	0.0147	0.0197	0.707	0.0187	0.0223	0.800				
26	60*	0.84	0.0203	0.0282	1.012	0.0263	0.0321	1.153				
24	50	1.06	0.0273	0.0383	1.147	0.0357	0.0440	1.317				
22	50	1.34	0.0400	0.0514	1.537	0.0467	0.0572	1.713				

\*Fy is 80 ksi reduced to 60 ksi in accordance with the 2001 edition of the Cold-Formed Steel Design Manual

#### **NOTES:**

- 1. All calculations for the properties of the panel are calculated in accordance with the 2001 edition of the Cold-Formed Steel Design Manual, published by the American Iron and Steel Institute (AISI).
- 2. Ixe is for deflection determination.
- 3. Sxe is for Bending.
- 4. Maxo is allowable bending moment.
- 5. All values are for one foot of the panel width

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#### PBA PANEL FASTENER LOCATIONS



### NOTES:

- 1. The PBR panel has an unsymmetrical purlin bearing side lap leg. Panel side lap with extended foot to bear on frame. However, where possible, the panel should be lapped against prevailing wind.
- 2. The above are typical fastener spacings. However, they may not be appropriate for all applications. Consult a professional engineer for use on any specific application.
- 3. Minimum ½" x 3/32" tape sealer required at panel side laps when used as roof panel.
- 4. Side lap fasteners are required. Typical spacing is 20" O.C. However, the spacing may not be appropriate for all applications. Consult a professional engineer for use on any specific supplication.



## **PBA Panel Properties**

### ALLOWABLE USABLE LOADS IN POUNDS PER SQUARE FOOT

		ALLOWABLE USABLE	LOADO III	CONDO	- LIV OQO	AIL I OC	<u> </u>		
Span Type	Gauge	Load Type	1.00	2.00	3.00	4.00	5.00	6.00	7.00
Single		Negative Wind	533.1	133.3	59.2	33.3	21.3	14.8	10.9
	29	Pos. Wind/ Live Load/ (L/180)	471.3	117.8	47.5	20.0	10.3	5.9	3.7
		Pos. Wind/ Live Load/ (L/120)	471.3	117.8	52.4	29.5	18.9	11.3	7.1
	26	Negative Wind	768.7	192.2	85.4	48.0	30.7	21.4	15.7
		Pos. Wind/ Live Load/ (L/180)	674.7	222.2	65.8	27.8	14.2	8.2	5.2
		Pos. Wind/ Live Load/ (L/120)	674.7	299.9	107.9	53.9	27.6	16.0	10.1
		Negative Wind	877.8	219.4	97.5	54.9	35.1	24.4	17.9
	24	Pos. Wind/ Live Load/ (L/180)	764.4	191.1	84.9	37.3	19.1	11.1	7.0
		Pos. Wind/ Live Load/ (L/120)	764.4	191.1	84.9	47.8	30.6	21.2	13.6
	22	Negative Wind	1142.2	285.6	126.9	71.4	45.7	31.7	23.3
		Pos. Wind/ Live Load/ (L/180)	1024.4	256.1	113.8	54.6	28.0	16.2	10.2
		Pos. Wind/ Live Load/ (L/120)	1024.4	256.1	113.8	64.0	41.0	28.3	17.8
2-Span		Negative Wind	384.9	111.1	51.0	29.0	18.7	13.0	9.6
	29	Pos. Wind/ Live Load/ (L/180)	416.4	123.8	57.2	32.7	21.1	14.3	9.0
		Pos. Wind/ Live Load/ (L/120)	416.4	123.8	57.2	32.7	21.1	14.7	10.8
	26	Negative Wind	584.6	162.1	73.6	41.7	26.8	18.7	13.7
		Pos. Wind/ Live Load/ (L/180)	642.6	182.6	83.4	47.4	30.5	19.8	12.5
		Pos. Wind/ Live Load/ (L/120)	642.6	182.6	83.4	47.4	30.5	21.2	15.6
	24	Negative Wind	648.3	182.4	83.2	47.2	30.3	21.1	15.5
		Pos. Wind/ Live Load/ (L/180)	713.1	206.5	94.9	54.0	34.8	24.2	16.8
		Pos. Wind/ Live Load/ (L/120)	713.1	206.5	94.9	54.0	34.8	24.2	17.8
	22	Negative Wind	853.9	243.1	111.1	63.2	40.6	28.3	20.8
		Pos. Wind/ Live Load/ (L/180)	918.6	267.8	123.2	70.2	45.2	31.5	23.2
		Pos. Wind/ Live Load/ (L/120)	918.6	267.8	123.2	70.2	45.2	31.5	23.2
	29	Negative Wind	449.3	135.6	63.0	36.0	23.2	16.2	11.9
		Pos. Wind/ Live Load/ (L/180)	480.9	150.2	70.5	37.8	19.4	11.2	7.1
		Pos. Wind/ Live Load/ (L/120)	480.9	150.2	70.5	40.5	26.2	18.3	13.5
	26	Negative Wind	693.7	199.3	91.3	51.9	33.4	23.3	17.1
		Pos. Wind/ Live Load/ (L/180)	754.8	223.5	103.3	52.4	26.8	15.5	9.8
3-Span		Pos. Wind/ Live Load/ (L/120)	754.8	223.5	103.3	58.9	38.0	26.5	19.0
	24	Negative Wind	764.5	223.7	103.0	58.7	37.8	26.3	19.4
		Pos. Wind/ Live Load/ (L/180)	831.4	251.9	117.2	67.0	36.1	20.9	13.1
		Pos. Wind/ Live Load/ (L/120)	831.4	251.9	117.2	67.0	43.3	30.2	22.2
	22	Negative Wind	1002.2	297.5	137.5	78.5	50.6	35.3	26.0
		Pos. Wind/ Live Load/ (L/180)	1068.3	326.3	152.1	87.1	52.8	30.5	19.2
		Pos. Wind/ Live Load/ (L/120)	1068.3	326.3	152.1	87.1	56.2	39.2	28.9
4-Span	29	Negative Wind	429.3	127.7	59.1	33.7	21.7	15.1	11.2
		Pos. Wind/ Live Load/ (L/180)	461.1	141.7	66.2	37.9	20.5	11.9	7.5
		Pos. Wind/ Live Load/ (L/120)	461.1	141.7	66.2	37.9	24.5	16.8	10.6
	26	Negative Wind	659.3	187.1	85.5	48.6	31.2	21.7	16.0
		Pos. Wind/ Live Load/ (L/180)	719.8	210.2	96.7	55.1	28.5	16.5	10.4
		Pos. Wind/ Live Load/ (L/120)	719.8	210.2	96.7	55.1	35.5	23.3	14.7
	24	Negative Wind	728.0	210.2	96.5	54.9	35.3	24.6	18.1
		Pos. Wind/ Live Load/ (L/180)	794.8	237.2	109.9	62.7	38.3	22.2	14.0
		Pos. Wind/ Live Load/ (L/120)	794.8	237.2	109.9	62.7	40.4	28.2	19.7
	22	Negative Wind	955.9	279.8	128.9	73.4	47.3	33.0	24.3
		Pos. Wind/ Live Load/ (L/180)	1022.0	307.4	142.7	81.5	52.6	32.4	20.4
		Pos. Wind/ Live Load/ (L/120)	1022.0	307.4	142.7	81.5	52.6	36.7	27.0

## NOTES:

- 1. Allowable loads are based on uniform span lengths.
- 2. Live Load or Positive Wind is limited by bending, shear, and/or combined shear &bending, which ever controls.
- 3. Negative Wind Load does not consider fastener pullout or pullover.
- 4. Panel weight has not been deducted from allowable loads.
- 5. Web crippling has not been checked and must be verified by the design professional for exterior and interior supports.
- 6. This material is subject to change without notice. Please contact SBS for most current data.

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