



**PBR Panel**

SECTION PROPERTIES								
			NEGATIVE BENDING			POSITIVE BENDING		
PANEL	Fy	WEIGHT	Ixe	Sxe	Maxo	Ixe	Sxe	Maxo
GAUGE	(KSI)	(PSF)	(IN.4/FT.)	(IN.3/FT.)	(KIP-IN.)	(IN.4/FT.)	(IN.3/FT.)	(KIP-IN.)
29	60*	0.75	0.0219	0.0357	1.2835	0.0242	0.0234	0.8423
26	60*	0.94	0.0302	0.0511	1.8366	0.0369	0.0372	1.3373
24	50	1.14	0.0404	0.0733	2.1953	0.0506	0.0521	1.5594
22	50	1.44	0.0544	0.1042	3.1201	0.0709	0.0749	2.2427

\* Fy is 80-ksi reduced to 60-ksi in accordance with the 2001 edition of the North American Specification For Design Of Cold-Formed Steel Structural Members - A2.3.2.

**NOTES:**

1. All calculations for the properties of PBR panels are calculated in accordance with the 2001 edition of the North American Specification For Design Of Cold-Formed Steel Structural Members.
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 panel width.

The Engineering data contained herein is for the expressed use of customers and design professionals. Along with this data, it is recommended that the design professional have a copy of the most current version of the *North American Specification for the Design of Cold-Formed Steel Structural Members* published by the American Iron and Steel Institute to facilitate design. This Specification contains the design criteria for cold-formed steel components. Along with the Specification, the designer should reference the most current building code applicable to the project jobsite in order to determine environmental loads. If further information or guidance regarding cold-formed design practices is desired, please contact the manufacturer.



ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

PBR Panel

29 Gauge (Fy = 60 KSI)								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3.0	4.0	5.0	6.0	7.0	8.0	9.0
SINGLE	NEGATIVE WIND LOAD	95.1	53.5	34.2	23.8	17.5	13.4	10.6
	LIVE LOAD/DEFLECTION	60.3	33.1	16.9	9.8	6.2	4.1	2.9
2-SPAN	NEGATIVE WIND LOAD	62.4	35.1	22.5	15.6	11.5	8.8	6.9
	LIVE LOAD/DEFLECTION	51.6	33.8	21.9	15.3	11.3	8.7	6.9
3-SPAN	NEGATIVE WIND LOAD	78.0	43.9	28.1	19.5	14.3	11.0	8.7
	LIVE LOAD/DEFLECTION	58.6	41.6	27.1	18.5	11.6	7.8	5.5
4-SPAN	NEGATIVE WIND LOAD	72.8	41.0	26.2	18.2	13.4	10.2	8.1
	LIVE LOAD/DEFLECTION	56.4	39.0	25.4	17.8	12.4	8.3	5.8

26 Gauge (Fy = 60 KSI)								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3.0	4.0	5.0	6.0	7.0	8.0	9.0
SINGLE	NEGATIVE WIND LOAD	136.0	76.5	49.0	34.0	25.0	19.1	15.1
	LIVE LOAD/DEFLECTION	99.1	50.4	25.8	14.9	9.4	6.3	4.4
2-SPAN	NEGATIVE WIND LOAD	99.1	55.7	35.7	24.8	18.2	13.9	11.0
	LIVE LOAD/DEFLECTION	87.3	54.6	35.2	24.5	18.1	13.9	10.7
3-SPAN	NEGATIVE WIND LOAD	123.8	69.7	44.6	31.0	22.7	17.4	13.8
	LIVE LOAD/DEFLECTION	99.2	67.7	43.8	28.2	17.7	11.9	8.3
4-SPAN	NEGATIVE WIND LOAD	115.6	65.0	41.6	28.9	21.2	16.3	12.8
	LIVE LOAD/DEFLECTION	95.5	63.4	40.9	28.6	18.8	12.6	8.9

24 Gauge (Fy = 50 KSI)								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3.0	4.0	5.0	6.0	7.0	8.0	9.0
SINGLE	NEGATIVE WIND LOAD	162.6	91.5	58.5	40.7	29.9	22.9	18.1
	LIVE LOAD/DEFLECTION	115.5	65.0	35.4	20.5	12.9	8.6	6.1
2-SPAN	NEGATIVE WIND LOAD	115.5	65.0	41.6	28.9	21.2	16.2	12.8
	LIVE LOAD/DEFLECTION	109.4	64.2	41.3	28.7	21.1	16.2	12.8
3-SPAN	NEGATIVE WIND LOAD	144.4	81.2	52.0	36.1	26.5	20.3	16.0
	LIVE LOAD/DEFLECTION	124.3	79.8	51.4	35.8	26.4	16.3	11.4
4-SPAN	NEGATIVE WIND LOAD	134.8	75.8	48.5	33.7	24.8	19.0	15.0
	LIVE LOAD/DEFLECTION	119.6	74.7	48.1	33.5	24.6	17.3	12.2

22 Gauge (Fy = 50 KSI)								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3.0	4.0	5.0	6.0	7.0	8.0	9.0
SINGLE	NEGATIVE WIND LOAD	231.1	130.0	83.2	57.8	42.5	32.5	25.7
	LIVE LOAD/DEFLECTION	166.1	93.4	49.6	28.7	18.1	12.1	8.5
2-SPAN	NEGATIVE WIND LOAD	166.1	93.4	59.8	41.5	30.5	23.4	18.5
	LIVE LOAD/DEFLECTION	163.1	92.5	59.4	41.3	30.4	23.3	18.4
3-SPAN	NEGATIVE WIND LOAD	207.7	116.8	74.8	51.9	38.1	29.2	23.1
	LIVE LOAD/DEFLECTION	200.6	115.1	74.1	51.6	34.1	22.8	16.0
4-SPAN	NEGATIVE WIND LOAD	193.9	109.1	69.8	48.5	35.6	27.3	21.5
	LIVE LOAD/DEFLECTION	189.5	107.6	69.2	48.2	35.5	24.2	17.0

NOTES:

- 1) Allowable loads are based on uniform span lengths and Fy = 50 and 60-ksi.
- 2) LIVE LOAD is limited by bending, shear, combined shear & bending and web crippling.
- 3) **NEGATIVE WIND LOAD does not contain a 33.333% increase and does not consider fastener pullout or pullover.**
- 4) Above loads consider a maximum deflection ratio of L/180.
- 5) The weight of the panel has not been deducted from the allowable loads.
- 6) The use of any accessories other than those provided by the manufacturer may damage panels, void all warranties and will void all engineering data.
- 7) This material is subject to change without notice. Please contact MBCI for most current data.

The Engineering data contained herein is for the expressed use of customers and design professionals. Along with this data, it is recommended that the design professional have a copy of the most current version of the *North American Specification for the Design of Cold-Formed Steel Structural Members* published by the American Iron and Steel Institute to facilitate design. This Specification contains the design criteria for cold-formed steel components. Along with the Specification, the designer should reference the most current building code applicable to the project jobsite in order to determine environmental loads. If further information or guidance regarding cold-formed design practices is desired, please contact the manufacturer.