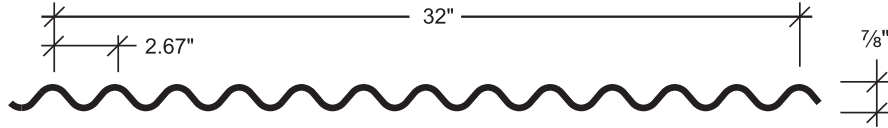


## SPECIFICATIONS

### PBC PANEL



SECTION PROPERTIES								
			NEGATIVE BENDING			POSITIVE BENDING		
PANEL	Fy	WEIGHT	lxe	Sxe	Maxo	lxe	Sxe	Maxo
GAUGE	(KSI)	(PSF)	(IN.4/FT.)	(IN.3/FT.)	(KIP-IN.)	(IN.4/FT.)	(IN.3/FT.)	(KIP-IN.)
29	60*	0.84	0.019	0.044	1.575	0.019	0.044	1.575
26	60*	1.06	0.027	0.059	2.135	0.027	0.059	2.135
24	50	1.28	0.033	0.073	2.185	0.033	0.073	2.185
22	50	1.62	0.042	0.093	2.788	0.042	0.093	2.788

\* Fy is 80-ksi reduced to 60-ksi in accordance with the 2012 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 PBC Roof panels are calculated in accordance with the 2012 edition of the North American Specification For Design Of Cold-Formed Steel Structural Members.
2. lxe 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.

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## SPECIFICATIONS

### PBC ROOF PANEL

#### ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

29 Gauge (0.0133"), Fy = 60 ksi, Fu = 61.5 ksi								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3.0	4.0	5.0	6.0	7.0	8.0	9.0
1-span	NEGATIVE WIND LOAD	116.66	65.62	42.00	29.16	21.26	14.24	10.00
	LIVE LOAD/DEFLECTION	63.03	26.59	13.61	7.88	4.96	3.32	2.33
2-span	NEGATIVE WIND LOAD	114.69	64.99	41.74	29.04	21.36	16.37	12.94
	LIVE LOAD/DEFLECTION	85.02	63.77	32.79	18.98	11.95	8.01	5.62
3-span	NEGATIVE WIND LOAD	142.32	80.90	52.03	36.23	26.66	20.43	16.16
	LIVE LOAD/DEFLECTION	96.61	50.18	25.69	14.87	9.36	6.27	4.41
4-span	NEGATIVE WIND LOAD	133.18	75.62	48.61	33.84	24.90	19.08	15.09
	LIVE LOAD/DEFLECTION	92.99	53.27	27.27	15.78	9.94	6.66	4.68

26 Gauge (0.0181"), Fy = 60 ksi, Fu = 61.5 ksi								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3.0	4.0	5.0	6.0	7.0	8.0	9.0
1-span	NEGATIVE WIND LOAD	158.15	88.96	56.94	39.54	28.98	19.42	13.64
	LIVE LOAD/DEFLECTION	85.91	36.24	18.56	10.74	6.76	4.53	3.18
2-span	NEGATIVE WIND LOAD	155.46	88.10	56.58	39.37	28.96	22.19	17.54
	LIVE LOAD/DEFLECTION	155.46	87.30	44.70	25.87	16.29	10.91	7.66
3-span	NEGATIVE WIND LOAD	192.89	109.66	70.53	49.11	36.14	27.70	21.90
	LIVE LOAD/DEFLECTION	162.12	68.39	35.02	20.26	12.76	8.55	6.00
4-span	NEGATIVE WIND LOAD	180.50	102.50	65.89	45.87	33.75	25.87	20.45
	LIVE LOAD/DEFLECTION	172.09	72.60	37.17	21.51	13.55	9.08	6.37

24 Gauge (0.0223"), Fy = 50 ksi, Fu = 60 ksi								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3.0	4.0	5.0	6.0	7.0	8.0	9.0
1-span	NEGATIVE WIND LOAD	161.82	91.03	58.26	40.46	29.72	22.76	16.82
	LIVE LOAD/DEFLECTION	105.98	44.71	22.89	13.25	8.34	5.59	3.93
2-span	NEGATIVE WIND LOAD	159.03	90.13	57.89	40.28	29.63	22.70	17.95
	LIVE LOAD/DEFLECTION	159.03	90.13	55.14	31.91	20.10	13.46	9.45
3-span	NEGATIVE WIND LOAD	197.31	112.18	72.16	50.25	36.98	28.34	22.41
	LIVE LOAD/DEFLECTION	197.31	84.37	43.20	25.00	15.74	10.55	7.41
4-span	NEGATIVE WIND LOAD	184.64	104.86	67.42	46.93	34.53	26.46	20.92
	LIVE LOAD/DEFLECTION	184.64	89.56	45.86	26.54	16.71	11.20	7.86

22 Gauge (0.0286"), Fy = 50 ksi, Fu = 60 ksi								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3.0	4.0	5.0	6.0	7.0	8.0	9.0
1-span	NEGATIVE WIND LOAD	206.48	116.15	74.33	51.62	37.93	29.04	21.62
	LIVE LOAD/DEFLECTION	136.17	57.45	29.41	17.02	10.72	7.18	5.04
2-span	NEGATIVE WIND LOAD	202.85	114.99	73.86	51.39	37.80	28.96	22.90
	LIVE LOAD/DEFLECTION	202.85	114.99	70.85	41.00	25.82	17.30	12.15
3-span	NEGATIVE WIND LOAD	251.65	143.11	92.06	64.11	47.18	36.16	28.60
	LIVE LOAD/DEFLECTION	251.65	108.41	55.51	32.12	20.23	13.55	9.52
4-span	NEGATIVE WIND LOAD	235.50	133.77	86.01	59.88	44.06	33.77	26.70
	LIVE LOAD/DEFLECTION	235.50	115.08	58.92	34.10	21.47	14.39	10.10

**Notes:**

- Strength calculations based on the 2012 AISI Standard "North American Specification for the Design of Cold-formed Steel Structural Members."
- Allowable loads are applicable for uniform loading and spans without overhangs.
- LIVE LOAD/DEFLECTION load capacities are for those loads that push the panel against its supports. The applicable limit states are flexure, shear, combined shear and flexure, web crippling at end and interior supports, and a deflection limit of L/180 under strength-level loads.
- NEGATIVE WIND LOAD capacities are for those loads that pull the panel away from its supports. The applicable limit states are flexure, shear, combined shear and flexure, and a deflection limit of L/60 under 10-year wind loading.
- Panel pullover and Screw pullout capacity must be checked separately using the screws employed for each particular application when utilizing this load chart.
- Effective yield strength has been determined in accordance with section A2.3.2 of the 2012 NAS specification.
- The use of any accessories other than those provided by the manufacturer may damage panels, void all warranties and will void all engineering data.
- 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.

# SPECIFICATIONS

## PBC WALL PANEL

### ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

29 Gauge (0.0133"), Fy = 60 ksi, Fu = 61.5 ksi								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3.0	4.0	5.0	6.0	7.0	8.0	9.0
1-span	NEGATIVE WIND LOAD	116.66	65.62	42.00	29.16	21.26	14.24	10.00
	LIVE LOAD/DEFLECTION	116.66	65.62	42.00	29.16	21.26	14.24	10.00
2-span	NEGATIVE WIND LOAD	114.69	64.99	41.74	29.04	21.36	16.37	12.94
	LIVE LOAD/DEFLECTION	85.02	63.77	41.74	29.04	21.36	16.37	12.94
3-span	NEGATIVE WIND LOAD	142.32	80.90	52.03	36.23	26.66	20.43	16.16
	LIVE LOAD/DEFLECTION	96.61	72.46	52.03	36.23	26.66	20.43	16.16
4-span	NEGATIVE WIND LOAD	133.18	75.62	48.61	33.84	24.90	19.08	15.09
	LIVE LOAD/DEFLECTION	92.99	69.74	48.61	33.84	24.90	19.08	15.09

26 Gauge (0.0181"), Fy = 60 ksi, Fu = 61.5 ksi								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3.0	4.0	5.0	6.0	7.0	8.0	9.0
1-span	NEGATIVE WIND LOAD	158.15	88.96	56.94	39.54	28.98	19.42	13.64
	LIVE LOAD/DEFLECTION	158.15	88.96	56.94	39.54	28.98	19.42	13.64
2-span	NEGATIVE WIND LOAD	155.46	88.10	56.58	39.37	28.96	22.19	17.54
	LIVE LOAD/DEFLECTION	155.46	88.10	56.58	39.37	28.96	22.19	17.54
3-span	NEGATIVE WIND LOAD	192.89	109.66	70.53	49.11	36.14	27.70	21.90
	LIVE LOAD/DEFLECTION	192.89	109.66	70.53	49.11	36.14	27.70	21.90
4-span	NEGATIVE WIND LOAD	180.50	102.50	65.89	45.87	33.75	25.87	20.45
	LIVE LOAD/DEFLECTION	180.50	102.50	65.89	45.87	33.75	25.87	20.45

24 Gauge (0.0223"), Fy = 50 ksi, Fu = 60 ksi								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3.0	4.0	5.0	6.0	7.0	8.0	9.0
1-span	NEGATIVE WIND LOAD	161.82	91.03	58.26	40.46	29.72	22.76	16.82
	LIVE LOAD/DEFLECTION	161.82	91.03	58.26	40.46	29.72	22.76	16.82
2-span	NEGATIVE WIND LOAD	159.03	90.13	57.89	40.28	29.63	22.70	17.95
	LIVE LOAD/DEFLECTION	159.03	90.13	57.89	40.28	29.63	22.70	17.95
3-span	NEGATIVE WIND LOAD	197.31	112.18	72.16	50.25	36.98	28.34	22.41
	LIVE LOAD/DEFLECTION	197.31	112.18	72.16	50.25	36.98	28.34	22.41
4-span	NEGATIVE WIND LOAD	184.64	104.86	67.42	46.93	34.53	26.46	20.92
	LIVE LOAD/DEFLECTION	184.64	104.86	67.42	46.93	34.53	26.46	20.92

22 Gauge (0.0286"), Fy = 50 ksi, Fu = 60 ksi								
SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3.0	4.0	5.0	6.0	7.0	8.0	9.0
1-span	NEGATIVE WIND LOAD	206.48	116.15	74.33	51.62	37.93	29.04	21.62
	LIVE LOAD/DEFLECTION	206.48	116.15	74.33	51.62	37.93	29.04	21.62
2-span	NEGATIVE WIND LOAD	202.85	114.99	73.86	51.39	37.80	28.96	22.90
	LIVE LOAD/DEFLECTION	202.85	114.99	73.86	51.39	37.80	28.96	22.90
3-span	NEGATIVE WIND LOAD	251.65	143.11	92.06	64.11	47.18	36.16	28.60
	LIVE LOAD/DEFLECTION	251.65	143.11	92.06	64.11	47.18	36.16	28.60
4-span	NEGATIVE WIND LOAD	235.50	133.77	86.01	59.88	44.06	33.77	26.70
	LIVE LOAD/DEFLECTION	235.50	133.77	86.01	59.88	44.06	33.77	26.70

**Notes:**

- Strength calculations based on the 2012 AISI Standard "North American Specification for the Design of Cold-formed Steel Structural Members."
- Allowable loads are applicable for uniform loading and spans without overhangs.
- LIVE LOAD/DEFLECTION load capacities are for those loads that push the panel against its supports. The applicable limit states are flexure, shear, combined shear and flexure, web crippling at end and interior supports, and a deflection limit of L/60 under strength-level loads.
- NEGATIVE WIND LOAD capacities are for those loads that pull the panel away from its supports. The applicable limit states are flexure, shear, combined shear and flexure, and a deflection limit of L/60 under 10-year wind loading.
- Panel pullover and Screw pullout capacity must be checked separately using the screws employed for each particular application when utilizing this load chart.
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