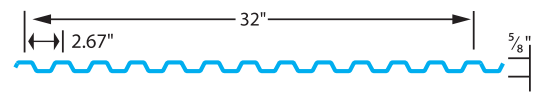


PBD



PRODUCT DESCRIPTION

Description:

PBD is an exposed fastened panel system that can be used for roof and wall applications. The ribs in the PBD panel are symmetrical from top to bottom, which makes this panel ideal as a roof liner.

Gauge:

26 (standard); 29, 24 and 22 (optional)

Lengths:

Maximum recommended length of 40'-0". Longer lengths available upon special order.

Dimensions:

32" coverage with 5/8" ribs located 2.67" on center.

Fasteners:

Exposed fastening system

Finish:

Smooth finish (standard); Embossed (optional) Galvalume® Plus, Signature® 200, Signature® 300. Minimum quantities may be required for some colors.

Usage:

Roof and wall system application.

Limitations:

Minimum slope of 3:12 recommended for roof application.

FEATURE

- 1 Exposed fastener panel
- 2 Sculptured ribs
- 3 Continuous eave to sill until panel exceeds 40' in length
- 4 Signature® 200 series
- 5 Signature® 300 option
- 6 Paint warranty
- 7 Optional embossed texture

BENEFIT

- 1 Economical application
- 2 Provides a textured appearance; reduces the potential for oil canning
- 3 Eliminating end laps enhances appearance; ease of installation
- 4 Highly durable silicone polyester paint system with excellent color and gloss retention in addition to superior chalk resistance
- 5 Fluoropolymer paint system offers excellent color retention and superior resistance to chalking, chemical and UV degradation
- 6 Used with long-life fasteners, a 40-year limited warranty is available for most colors
- 7 Embossing the metal reduces glare and the potential for oil-canning

ALLOWABLE UNIFORM LOADS IN POUNDS PER SQUARE FOOT

29 Gauge (0.0133" Design Thickness), Fy = 60 ksi, Fu = 61.5 ksi

SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3	4	5	6	7	8	9
1-SPAN	NEGATIVE WIND LOAD	106.73	60.04	35.53	20.56	12.95	8.68	6.09
	POSITIVE LOAD	38.45	16.22	8.31	4.81	3.03	2.03	1.42
	POSITIVE WIND LOAD	107.04	60.21	35.59	20.60	12.97	8.69	6.10
2-SPAN	NEGATIVE WIND LOAD	105.41	59.69	38.32	26.66	19.60	15.02	11.87
	POSITIVE LOAD	105.12	45.14	23.11	13.38	8.42	5.64	3.96
	POSITIVE WIND LOAD	105.12	59.52	38.21	26.58	19.55	14.98	11.84
3-SPAN	NEGATIVE WIND LOAD	130.89	74.33	47.78	33.26	24.47	18.17	12.76
	POSITIVE LOAD	80.62	34.01	17.41	10.08	6.35	4.25	2.99
	POSITIVE WIND LOAD	130.54	74.12	47.65	33.17	24.41	18.22	12.80
4-SPAN	NEGATIVE WIND LOAD	122.45	69.46	44.63	31.06	22.85	17.51	13.73
	POSITIVE LOAD	86.73	36.59	18.73	10.84	6.83	4.57	3.21
	POSITIVE WIND LOAD	122.12	69.27	44.51	30.98	22.79	17.46	13.77

26 Gauge (0.0181" Design Thickness), Fy = 60 ksi, Fu = 61.5 ksi

SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3	4	5	6	7	8	9
1-SPAN	NEGATIVE WIND LOAD	163.78	92.13	51.62	29.87	18.81	12.60	8.85
	POSITIVE LOAD	56.04	23.64	12.11	7.01	4.41	2.96	2.08
	POSITIVE WIND LOAD	165.27	92.96	51.88	30.02	18.91	12.67	8.90
2-SPAN	NEGATIVE WIND LOAD	162.01	91.92	59.07	41.11	30.24	23.17	18.32
	POSITIVE LOAD	149.98	63.27	32.40	18.75	11.81	7.91	5.55
	POSITIVE WIND LOAD	160.61	91.11	58.54	40.74	29.97	22.97	18.16
3-SPAN	NEGATIVE WIND LOAD	200.80	114.34	73.60	51.27	37.74	26.03	18.28
	POSITIVE LOAD	116.06	48.96	25.07	14.51	9.14	6.12	4.30
	POSITIVE WIND LOAD	199.08	113.34	72.95	50.82	37.41	26.23	18.42
4-SPAN	NEGATIVE WIND LOAD	187.97	106.90	68.77	47.89	35.25	27.02	19.53
	POSITIVE LOAD	123.91	52.28	26.77	15.49	9.75	6.53	4.59
	POSITIVE WIND LOAD	186.36	105.96	68.16	47.47	34.93	26.77	19.67

24 Gauge (0.0223" Design Thickness), Fy = 50 ksi, Fu = 60 ksi

SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3	4	5	6	7	8	9
1-SPAN	NEGATIVE WIND LOAD	155.32	87.37	55.92	38.83	25.19	16.87	11.85
	POSITIVE LOAD	75.14	31.70	16.23	9.39	5.91	3.96	2.78
	POSITIVE WIND LOAD	157.32	88.49	56.63	39.33	25.35	16.98	11.93
2-SPAN	NEGATIVE WIND LOAD	154.61	87.62	56.28	39.16	28.80	22.07	17.45
	POSITIVE LOAD	152.72	77.68	39.77	23.02	14.49	9.71	6.82
	POSITIVE WIND LOAD	152.72	86.53	55.57	38.66	28.44	21.79	17.22
3-SPAN	NEGATIVE WIND LOAD	191.83	109.06	70.15	48.85	35.95	27.55	21.79
	POSITIVE LOAD	144.26	60.86	31.16	18.03	11.36	7.61	5.34
	POSITIVE WIND LOAD	189.51	107.72	69.28	48.24	35.50	27.21	21.51
4-SPAN	NEGATIVE WIND LOAD	179.51	101.95	65.54	45.63	33.57	25.73	20.34
	POSITIVE LOAD	153.12	64.60	33.07	19.14	12.05	8.07	5.67
	POSITIVE WIND LOAD	177.33	100.69	64.72	45.05	33.15	25.40	20.08

22 Gauge (0.0286" Design Thickness), Fy = 50 ksi, Fu = 60 ksi

SPAN TYPE	LOAD TYPE	SPAN IN FEET						
		3	4	5	6	7	8	9
1-SPAN	NEGATIVE WIND LOAD	201.90	113.57	72.68	50.48	32.69	21.90	15.38
	POSITIVE LOAD	97.47	41.12	21.05	12.18	7.67	5.14	3.61
	POSITIVE WIND LOAD	204.19	114.86	73.16	50.82	33.02	22.02	15.83
2-SPAN	NEGATIVE WIND LOAD	200.54	113.69	73.03	50.82	37.38	28.64	22.64
	POSITIVE LOAD	198.37	99.25	50.82	29.41	18.52	12.41	8.71
	POSITIVE WIND LOAD	198.37	112.44	72.22	50.25	36.96	28.32	22.39
3-SPAN	NEGATIVE WIND LOAD	248.75	141.48	91.02	63.39	46.66	35.76	28.28
	POSITIVE LOAD	184.31	77.75	39.81	23.04	14.51	9.72	6.83
	POSITIVE WIND LOAD	246.10	139.94	90.02	62.69	43.52	29.16	20.48
4-SPAN	NEGATIVE WIND LOAD	232.80	132.26	85.04	59.21	43.57	33.39	26.40
	POSITIVE LOAD	195.65	82.54	42.26	24.46	15.40	10.32	7.25
	POSITIVE WIND LOAD	230.30	130.81	84.10	58.55	43.08	30.95	21.74

SECTION PROPERTIES

PANEL GAUGE	Fy (ksi)	WEIGHT (psf)	NEGATIVE BENDING			POSITIVE BENDING		
			Ixe (in. ⁴ /ft.)	Sxe (in. ³ /ft.)	Maxo (kip-in.)	Ixe (in. ⁴ /ft.)	Sxe (in. ³ /ft.)	Maxo (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 in accordance with the 2012 edition of the North American Specification for Design of Cold-formed Steel Structural Members.

Robertson Building Systems reserves the right to discontinue products at any time or change specifications and/or designs without incurring obligation. For current product information, inquire or visit RobertsonBuildings.com. Application details are for illustration purposes only and may not be appropriate for all conditions, building designs or panel profiles. If there is a conflict between the preceding and project erection drawings, the erection drawings will take precedence.

ALLOWABLE UNIFORM LOADS NOTES

- Strength calculations based on the 2012 edition of AISI S-100, North American Specification for the Design of Cold-formed Steel Structural Members.
- Allowable strengths given are applicable for uniform loading and spans without significant overhangs.
- POSITIVE LOAD allowable strengths shown are for those loads that push the panel into its supports. The applicable limit states are flexure, shear, combined shear and flexure, web crippling at end and interior supports and span/180 deflection under the identical (strength-level) loads.
- POSITIVE WIND LOAD allowable strengths shown are for those loads that push the panel into its supports. The applicable limit states are flexure, shear, combined shear and flexure, web crippling at end and interior supports and span/60 deflection under a 10-year recurrence wind load, using a 0.7 conversion factor.
- NEGATIVE WIND LOAD allowable strengths are for those loads that pull the panel away from its supports. The applicable limit states are flexure, shear, combined shear and flexure, as well as span/60 under a 10-year recurrence wind load, using a 0.7 conversion factor.
- Panel pullover and Screw pullout allowable strengths must be checked separately using the screws employed for each particular application when utilizing this load chart.
- Effective yield strength (Fy) has been determined in accordance with Section A2.3.2 of AISI-S100.
- 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 Robertson Building Systems for most current data.

SECTION PROPERTY NOTES

- All calculations for the properties of PBD Roof panels are calculated in accordance with the 2012 edition of the North American Specification For Design Of Cold-Formed Steel Structural Members.
- Ixe is for deflection determination.
- Sxe is for bending.
- Maxo is allowable bending moment.
- 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.

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