



# PremierMetals

CUSTOM METAL ROOFING AND SIDING

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## R-PANEL TECHNICAL DATA

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.
26	80.0	0.87	0.5018	125.70	261.34	0.0383	0.0383	1.3760	0.0310	0.0531	1.6277

- 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	407	229	146	101	74	57	45	36	30	25	21	18	16	14	12	11
	Negative Wind	482	271	173	120	88	67	53	43	35	30	25	22	19	16	15	13
	Live	407	229	146	101	74	57	45	36	30	25	21	18	16	14	12	11
	Deflection (L/180)	991	418	214	123	78	52	36	26	20	15	12	9	7	6	5	4
	Deflection (L/240)	743	313	160	92	58	39	27	20	15	11	9	7	5	4	4	3
2 Span	Positive Wind	358	224	152	109	82	64	51	41	34	29	25	21	18	16	14	13
	Negative Wind	324	199	133	95	71	55	43	35	29	25	21	18	16	14	12	11
	Live	358	224	152	109	82	64	51	41	34	29	25	21	18	16	14	13
	Deflection (L/180)	2161	911	466	270	170	113	80	58	43	33	26	21	17	14	11	10
	Deflection (L/240)	1621	683	350	202	127	85	60	43	32	25	19	15	12	10	8	7
3 Span	Positive Wind	409	263	182	132	100	78	63	51	43	36	31	26	23	20	18	16
	Negative Wind	376	236	160	115	87	67	54	44	36	31	26	22	20	17	15	13
	Live	409	263	182	132	100	78	63	51	43	36	31	26	23	20	18	16
	Deflection (L/180)	1693	714	365	211	133	89	62	45	34	26	20	16	13	11	9	7
	Deflection (L/240)	1270	535	274	158	99	66	47	34	25	19	15	12	10	8	6	5
4 Span	Positive Wind	393	251	172	125	94	73	59	48	40	34	29	25	22	19	17	15
	Negative Wind	360	224	152	109	81	63	50	41	34	29	24	21	18	16	14	13
	Live	393	251	172	125	94	73	59	48	40	34	29	25	22	19	17	15
	Deflection (L/180)	1797	758	388	224	141	94	66	48	36	28	22	17	14	11	9	8
	Deflection (L/240)	1348	568	291	168	106	71	49	36	27	21	16	13	10	8	7	6

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.

### PANEL DIAGRAM

