



## TECHNICAL BULLETIN

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### R-Panel



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.
24	80.0	1.10	0.8942	210.54	409.36	0.0543	0.0559	1.8620	0.0417	0.0743	2.0913

- 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	551	310	198	137	101	77	61	49	41	34	29	25	22	19	17	15
	Negative Wind	619	348	223	154	113	87	68	55	46	38	32	28	24	21	19	17
	Live	551	310	198	137	101	77	61	49	41	34	29	25	22	19	17	15
	Deflection (L/180)	1406	593	303	175	110	74	52	37	28	21	17	13	11	9	7	6
	Deflection (L/240)	1054	444	227	131	83	55	39	28	21	16	12	10	8	6	5	4
2 Span	Positive Wind	519	313	207	147	109	84	67	54	45	38	32	28	24	21	19	17
	Negative Wind	477	284	187	132	98	75	60	48	40	34	29	25	21	19	17	15
	Live	519	313	207	147	109	84	67	54	45	38	32	28	24	21	19	17
	Deflection (L/180)	2994	1263	646	374	235	157	110	80	60	46	36	29	23	19	16	13
	Deflection (L/240)	2245	947	485	280	176	118	83	60	45	35	27	22	17	14	12	10
3 Span	Positive Wind	610	376	252	180	134	104	83	67	56	47	40	35	30	26	23	21
	Negative Wind	566	344	229	162	121	93	74	60	50	42	36	31	27	24	21	19
	Live	610	376	252	180	134	104	83	67	56	47	40	35	30	26	23	21
	Deflection (L/180)	2345	989	506	293	184	123	86	63	47	36	28	23	18	15	12	10
	Deflection (L/240)	1759	742	380	219	138	92	65	47	35	27	21	17	14	11	9	8
4 Span	Positive Wind	582	355	238	169	126	97	78	63	52	44	37	32	28	25	22	19
	Negative Wind	538	324	215	152	113	87	69	56	47	39	33	29	25	22	19	17
	Live	582	355	238	169	126	97	78	63	52	44	37	32	28	25	22	19
	Deflection (L/180)	2490	1050	537	311	196	131	92	67	50	38	30	24	19	16	13	11
	Deflection (L/240)	1867	787	403	233	147	98	69	50	37	29	22	18	14	12	10	8

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.

CORPORATE OFFICE  
SHREVEPORT, LOUISIANA