



TECHNICAL BULLETIN

Issue Date : June 1, 2006

No. 07-251-06

R-Panel



SECTION PROPERTIES						TOP IN COMPRESSION			BOTTOM IN COMPRESSION		
GAUGE	FY (KSI)	WEIGHT (PSF)	V _a kip/ft.	P _{a_end} lbs/ft.	P _{a_int} lbs/ft.	I _x (in. ⁴ /ft.)	S _e (in. ³ /ft.)	M _a kip-in./ft.	I _x (in. ⁴ /ft.)	S _e (in. ³ /ft.)	M _a kip-in./ft.
24	50.0	1.10	0.8163	175.45	341.14	0.0540	0.0550	1.6457	0.0430	0.0799	1.7620

- Section properties are calculated in accordance with the 2001 AISI North American Specification for the Design of Cold-Formed Steel Structural Members.
- V_a is the allowable shear.
- P_a is the allowable load for web crippling on end & interior supports.
- I_x is for deflection determination.
- S_e is for bending.
- M_a 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	487	274	175	121	89	68	54	43	36	30	25	22	19	17	15	13
	Negative Wind	522	293	187	130	95	73	58	46	38	32	27	23	20	18	16	14
	Live	487	274	175	121	89	68	54	43	36	30	25	22	19	17	15	13
	Deflection (L/180)	1398	590	302	174	110	73	51	37	28	21	17	13	11	9	7	6
	Deflection (L/240)	1048	442	226	131	82	55	38	28	21	16	12	10	8	6	5	4
2 Span	Positive Wind	447	267	176	125	92	71	56	46	38	32	27	23	20	18	16	14
	Negative Wind	425	252	166	117	87	67	53	43	35	30	25	22	19	17	15	13
	Live	447	267	176	125	92	71	56	46	38	32	27	23	20	18	16	14
	Deflection (L/180)	3025	1276	653	378	238	159	112	81	61	47	37	29	24	19	16	14
	Deflection (L/240)	2269	957	490	283	178	119	84	61	46	35	27	22	18	14	12	10
3 Span	Positive Wind	529	323	215	153	114	88	70	57	47	40	34	29	25	22	20	17
	Negative Wind	505	306	203	144	107	83	66	53	44	37	32	27	24	21	18	16
	Live	529	323	215	153	114	88	70	57	47	40	34	29	25	22	20	17
	Deflection (L/180)	2370	999	511	296	186	124	87	63	48	37	29	23	18	15	13	10
	Deflection (L/240)	1777	749	383	222	139	93	65	47	36	27	21	17	14	11	9	8
4 Span	Positive Wind	503	305	203	144	107	83	66	53	44	37	32	27	24	21	18	16
	Negative Wind	480	288	191	135	100	77	61	50	41	35	29	25	22	19	17	15
	Live	503	305	203	144	107	83	66	53	44	37	32	27	24	21	18	16
	Deflection (L/180)	2516	1061	543	314	198	132	93	67	51	39	30	24	20	16	13	11
	Deflection (L/240)	1887	796	407	235	148	99	69	50	38	29	23	18	15	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.

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