



TECHNICAL BULLETIN

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No. 07-250-06

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.
22	50.0	1.44	1.2852	311.37	574.90	0.0767	0.0809	2.4200	0.0600	0.1194	2.3600

- 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	717	403	258	179	131	100	79	64	53	44	38	32	28	25	22	19
	Negative Wind	699	393	251	174	128	98	77	62	52	43	37	32	27	24	21	19
	Live	717	403	258	179	131	100	79	64	53	44	38	32	28	25	22	19
	Deflection (L/180)	1986	838	429	248	156	104	73	53	40	31	24	19	15	13	10	9
	Deflection (L/240)	1489	628	321	186	117	78	55	40	30	23	18	14	11	9	8	6
2 Span	Positive Wind	622	367	240	169	125	96	76	62	51	43	36	31	27	24	21	19
	Negative Wind	635	375	246	173	128	98	78	63	52	44	37	32	28	25	22	19
	Live	622	367	240	169	125	96	76	62	51	43	36	31	27	24	21	19
	Deflection (L/180)	4264	1798	921	533	335	224	157	115	86	66	52	41	34	28	23	19
	Deflection (L/240)	3198	1349	690	399	251	168	118	86	64	49	39	31	25	21	17	14
3 Span	Positive Wind	745	446	295	208	155	119	95	77	64	54	46	39	34	30	27	24
	Negative Wind	759	456	301	213	158	122	97	79	65	55	47	40	35	31	27	24
	Live	745	446	295	208	155	119	95	77	64	54	46	39	34	30	27	24
	Deflection (L/180)	3340	1409	721	417	262	176	123	90	67	52	41	32	26	22	18	15
	Deflection (L/240)	2505	1056	541	313	197	132	92	67	50	39	30	24	20	16	13	11
4 Span	Positive Wind	706	421	277	195	145	112	89	72	59	50	43	37	32	28	25	22
	Negative Wind	719	429	283	200	148	114	91	74	61	51	44	38	33	29	25	23
	Live	706	421	277	195	145	112	89	72	59	50	43	37	32	28	25	22
	Deflection (L/180)	3545	1495	765	443	279	186	131	95	71	55	43	34	28	23	19	16
	Deflection (L/240)	2659	1121	574	332	209	140	98	71	53	41	32	26	21	17	14	12

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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