



TECHNICAL BULLETIN

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No. 07-253-06

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.
26	50.0	0.87	0.5018	104.75	217.78	0.0403	0.0408	1.1597	0.0323	0.0569	1.3717

- 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	343	193	123	85	63	48	38	30	25	21	18	15	13	12	10	9
	Negative Wind	406	228	146	101	74	57	45	36	30	25	21	18	16	14	12	11
	Live	343	193	123	85	63	48	38	30	25	21	18	15	13	12	10	9
	Deflection (L/180)	1043	440	225	130	82	55	38	28	21	16	12	10	8	6	5	4
	Deflection (L/240)	782	330	169	97	61	41	28	21	15	12	9	7	6	5	4	3
2 Span	Positive Wind	323	198	133	94	70	54	43	35	29	24	21	18	16	14	12	11
	Negative Wind	289	174	115	81	60	46	37	30	25	21	18	15	13	11	10	9
	Live	323	198	133	94	70	54	43	35	29	24	21	18	16	14	12	11
	Deflection (L/180)	2264	955	489	283	178	119	83	61	45	35	27	22	18	14	12	10
	Deflection (L/240)	1698	716	366	212	133	89	62	45	34	26	20	16	13	11	9	7
3 Span	Positive Wind	375	235	160	115	86	67	54	44	36	30	26	22	19	17	15	13
	Negative Wind	340	209	140	100	74	58	46	37	31	26	22	19	16	14	13	11
	Live	375	235	160	115	86	67	54	44	36	30	26	22	19	17	15	13
	Deflection (L/180)	1774	748	383	221	139	93	65	47	35	27	21	17	14	11	9	8
	Deflection (L/240)	1330	561	287	166	104	70	49	35	26	20	16	13	10	8	7	6
4 Span	Positive Wind	359	224	151	108	81	63	50	41	34	28	24	21	18	16	14	13
	Negative Wind	324	197	132	94	70	54	43	35	29	24	21	18	15	13	12	11
	Live	359	224	151	108	81	63	50	41	34	28	24	21	18	16	14	13
	Deflection (L/180)	1883	794	406	235	148	99	69	50	38	29	23	18	15	12	10	8
	Deflection (L/240)	1412	595	305	176	111	74	52	38	28	22	17	13	11	9	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.

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