



Mega-Rib

Bare & Painted



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.)
20	50.0	1.84	2.6823	746.00	915.37	0.1633	0.2090	5.2233	0.1667	0.1965	4.9133

1. Section properties are calculated in accordance with the 2016 AISI North American Specification for the Design of Cold-Formed Steel Structural Members.
2. V_a is the allowable shear.
3. P_a is the allowable load for web crippling on end & interior supports.
4. I_x is for deflection determination.
5. S_e is for bending.
6. M_a is the allowable bending moment.
7. All values are for one foot of panel width.

Allowable Uniform Loads (PSF)

		Span in Feet															
Span Type	Load Type	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00	10.50	11.00
Single	Positive Wind	284	217	171	139	115	96	82	71	61	54	48	42	38	34	31	28
	Negative Wind	267	204	161	131	108	90	77	66	58	51	45	40	36	32	29	27
	Live	284	217	171	139	115	96	82	71	61	54	48	42	38	34	31	28
	Deflection (L/180)	332	223	156	114	85	66	51	41	33	27	23	19	16	14	12	10
	Deflection (L/240)	249	167	117	85	64	49	38	31	25	20	17	14	12	10	9	8
2 Span	Positive Wind	261	201	159	129	107	90	76	66	57	50	45	40	36	32	29	27
	Negative Wind	276	213	169	137	113	95	81	70	61	54	47	42	38	34	31	28
	Live	261	201	159	129	107	90	76	66	57	50	45	40	36	32	29	27
	Deflection (L/180)	500	500	381	277	208	160	126	101	82	67	56	47	40	34	30	26
	Deflection (L/240)	500	407	285	208	156	120	94	75	61	50	42	35	30	26	22	19
3 Span	Positive Wind	323	249	198	161	133	112	95	82	72	63	56	50	45	40	36	33
	Negative Wind	342	264	210	170	141	119	101	87	76	67	59	53	47	43	39	35
	Live	323	249	198	161	133	112	95	82	72	63	56	50	45	40	36	33
	Deflection (L/180)	500	425	298	217	163	125	99	79	64	53	44	37	31	27	23	20
	Deflection (L/240)	476	318	223	163	122	94	74	59	48	39	33	27	23	20	17	15
4 Span	Positive Wind	302	233	185	150	124	105	89	77	67	59	52	46	42	38	34	31
	Negative Wind	320	247	196	159	132	111	95	82	71	63	55	49	44	40	36	33
	Live	302	233	185	150	124	105	89	77	67	59	52	46	42	38	34	31
	Deflection (L/180)	500	451	317	231	173	133	105	84	68	56	47	39	33	28	24	21
	Deflection (L/240)	500	338	237	173	130	100	78	63	51	42	35	29	25	21	18	16

Notes:

1. Allowable uniform loads are based upon equal span lengths.
2. Live is the allowable live or snow load.
3. Deflection (L/180) is the allowable load that limits the panel's deflection to L/180 while under positive or live load.
4. Deflection (L/240) is the allowable load that limits the panel's deflection to L/240 while under positive or live load.
5. The weight of the panel has **NOT** been deducted from the allowable loads.
6. Positive Wind, Negative Wind, and Live Load values are limited to combined shear & bending using Eq. H2-1 of the AISI Specification.
7. Positive Wind and Live Load values are limited by web crippling using a bearing length of 2".
8. Web crippling values are determined using a ratio of the uniform load **actually** supported by the top flanges of the section.
9. Load Tables are limited to a maximum allowable load of 500 psf.
10. Web crippling values are the more conservative value whether from analytical calculation or testing.