



Eco-ficient™ ThermalSafe
(Allowable Loads in PSF)

24 Ga. Exterior & 26 Ga. Interior Faces

Panel Depth	Span Type	Load Type	Span In Feet								
			5'	6'	7'	8'	9'	10'	11'	12'	13'
3"	Single	Bending & Shear	62.30	51.90	44.50	38.90	34.60	31.20	28.30	26.00	24.00
		Deflection (L/240)	86.80	67.50	53.70	43.30	35.40	29.30	24.40	20.50	17.30
		Connection F1	48.90	40.70	34.90	30.50	27.10	24.40	22.20	20.40	17.30
	Two Span or more	Bending & Shear	55.50	45.60	38.60	33.50	29.60	26.40	23.80	21.70	19.90
		Deflection (L/240)	90.00	71.80	58.90	49.20	41.80	35.60	30.60	26.40	23.00
		Connection F1	53.90	45.60	38.60	33.50	29.60	26.40	23.80	21.70	19.90
4"	Single	Bending & Shear	79.20	66.00	56.60	49.50	44.00	39.60	36.00	33.00	30.50
		Deflection (L/240)	115.70	91.60	74.10	60.90	50.70	42.60	36.00	30.70	26.30
		Connection F1	59.80	49.90	42.70	37.40	33.20	29.90	27.20	24.90	23.00
	Two Span or more	Bending & Shear	71.70	58.80	49.80	43.10	38.00	34.00	30.70	28.00	25.60
		Deflection (L/240)	118.20	95.10	78.60	66.30	56.70	49.10	42.90	37.50	33.00
		Connection F1	63.30	51.80	43.60	37.60	33.00	29.40	26.40	24.00	22.00
5"	Single	Bending & Shear	93.10	77.60	66.50	58.20	51.70	46.50	42.30	38.80	35.80
		Deflection (L/240)	141.60	113.40	92.80	77.30	65.10	55.30	47.40	40.90	35.40
		Connection F1	70.80	59.00	50.60	44.30	39.30	35.40	32.20	29.50	27.20
	Two Span or more	Bending & Shear	85.30	69.90	59.10	51.10	45.10	40.30	36.40	33.20	30.50
		Deflection (L/240)	143.60	116.20	96.60	81.90	70.50	61.40	54.00	47.80	42.50
		Connection F1	66.70	54.60	46.10	39.70	34.80	31.00	27.90	25.30	23.20
6"	Single	Bending & Shear	104.40	87.00	74.60	65.20	58.00	52.20	47.40	43.50	40.10
		Deflection (L/240)	163.70	132.10	109.10	91.70	77.90	66.90	57.90	50.30	44.00
		Connection F1	81.80	68.20	58.40	51.10	45.50	40.90	37.20	34.10	31.50
	Two Span or more	Bending & Shear	96.80	79.40	67.10	58.00	51.10	45.60	41.20	37.60	34.50
		Deflection (L/240)	165.20	134.30	112.20	95.50	82.60	72.20	63.80	56.80	50.80
		Connection F1	70.00	57.40	48.50	41.80	36.70	32.60	29.30	26.60	24.40
7"	Single	Bending & Shear	122.00	101.60	87.10	76.20	67.80	61.00	55.40	50.80	46.90
		Deflection (L/240)	193.40	156.70	130.10	109.80	93.90	81.00	70.40	61.60	54.20
		Connection F1	92.80	77.30	66.30	58.00	51.60	46.40	42.20	38.70	35.70
	Two Span or more	Bending & Shear	113.90	93.40	78.90	68.20	60.10	53.60	48.40	44.10	40.50
		Deflection (L/240)	194.70	158.80	132.90	113.50	98.30	86.20	76.30	68.10	61.20
		Connection F1	73.00	60.00	50.70	43.70	38.40	34.10	30.70	27.90	25.50
8"	Single	Bending & Shear	139.60	116.30	99.70	87.20	77.50	69.80	63.40	58.20	53.70
		Deflection (L/240)	223.20	181.40	151.10	128.10	109.90	95.30	83.20	73.10	64.60
		Connection F1	92.80	77.30	66.30	58.00	51.60	46.40	42.20	38.70	35.70
	Two Span or more	Bending & Shear	131.10	107.50	90.90	78.60	69.10	61.70	55.60	50.70	46.50
		Deflection (L/240)	224.30	183.30	153.80	131.50	114.20	100.40	89.00	79.60	71.60
		Connection F1	73.40	60.30	51.00	44.10	38.70	34.40	30.90	28.10	25.70
Connection F2	95.40	78.50	66.40	57.30	50.30	44.70	40.20	36.50	33.40		

Notes:

1. Based on ThermalSafe panel with 24 Ga. exterior & 26 Ga. interior face (min Fy = 33 ksi) for loads listed above.
2. Allowable positive load is the lowest value of panel bending strength, shear strength & deflection limit.
3. Allowable suction load is the lowest value of panel bending strength, shear strength, deflection limit and connection strength for each fastener pattern.
4. The loads based on panel stress and deflection design criteria are derived from ASTM E-72 structural testing. The allowable loads are calculated with a factor of safety of 2.5 and 3.0 for bending and shear stresses, respectively, and deflection limitation of L/240.
5. The connection strengths are derived from ASTM E-72 structural testing and the allowable loads are calculated with a factor of safety of 2.5.
6. Fastener Spacing across panel width into 14 Ga. Girts:
7. Connection F1 (3 Fasteners): End Support (3"-18"-18"-3") & Intermediate (7"-14"-14"-7")
8. Connection F2 (4 Fasteners): End Support (3"-12"-12"-12"-3") & Intermediate (5.25"-10.5"-10.5"-10.5"-5.25")
9. The structural capacity of the girts are not considered and must be examined independently.
10. This information is subject to change without notice. Please contact MBCI for most current information.