



CF Mesa 42 Panel
(Allowable Loads in PSF)

Panel Depth	Span Type	Load Type	Span in Feet										
			5'	6'	7'	8'	9'	10'	11'	12'	13'	14'	15'
2"	Two or More Spans	Bending & Shear	67.30	55.50	47.10	40.70	35.90	32.00	29.00	24.40	20.30	17.20	14.80
		Deflection (L/180)	69.20	54.30	43.80	35.60	29.30	24.40	20.50	17.30	14.70	12.60	10.90
		Pattern FP1	31.40	25.70	21.70	18.70	16.50	14.70	13.30	12.10	11.10	10.30	9.60
		Pattern FP2	46.00	37.60	31.70	27.40	24.10	21.50	19.50	17.30	14.70	12.60	10.90
		Pattern FP3	58.00	47.40	40.00	34.60	29.30	24.40	20.50	17.30	14.70	12.60	10.90
2.5"	Two or More Spans	Bending & Shear	77.40	63.60	54.00	46.90	41.30	36.80	33.20	29.70	24.60	20.80	17.80
		Deflection (L/180)	87.10	69.00	56.20	46.70	39.00	32.90	27.90	23.90	20.60	17.80	15.50
		Pattern FP1	33.20	27.10	22.80	19.70	17.30	15.50	14.00	12.70	11.70	10.80	10.00
		Pattern FP2	47.30	38.60	32.50	28.10	24.70	22.00	19.90	18.10	16.60	15.40	14.30
		Pattern FP3	59.80	48.80	41.20	35.50	31.20	27.90	25.20	22.90	20.60	17.80	15.50
3"	Two or More Spans	Bending & Shear	86.60	71.10	60.20	52.30	46.20	41.20	37.10	33.80	28.90	24.30	20.70
		Deflection (L/180)	103.30	82.40	67.60	56.50	48.00	40.90	35.10	30.30	26.40	23.00	20.20
		Pattern FP1	34.90	28.50	24.00	20.70	18.20	16.20	14.60	13.30	12.20	11.30	10.50
		Pattern FP2	48.60	39.70	33.40	28.80	25.30	22.60	20.30	18.50	17.00	15.70	14.60
		Pattern FP3	61.60	50.30	42.40	36.50	32.10	28.60	25.80	23.50	21.50	19.90	18.50
		Pattern FP4	70.80	57.80	48.70	42.00	36.90	32.90	29.60	27.00	24.80	22.90	20.20
4"	Two or More Spans	Bending & Shear	92.30	75.60	64.00	55.40	48.90	43.70	39.60	36.00	33.00	30.40	28.30
		Deflection (L/180)	129.90	104.70	86.70	73.20	62.80	54.40	47.60	41.80	36.90	32.70	29.10
		Pattern FP1	43.00	35.20	29.60	25.50	22.40	19.90	17.90	16.30	14.90	13.80	12.80
		Pattern FP2	63.00	51.50	43.40	37.40	32.80	29.20	26.30	23.90	21.90	20.20	18.80
		Pattern FP3	74.30	60.80	51.20	44.10	38.70	34.50	31.00	28.20	25.90	23.90	22.20
		Pattern FP4	79.60	65.10	54.90	47.30	41.50	36.90	33.20	30.20	27.70	25.60	23.70
		Pattern FP5	83.30	68.10	57.40	49.50	43.40	38.60	34.80	31.60	29.00	26.80	24.80
		Pattern FP9	89.50	73.20	61.70	53.20	46.70	41.50	37.40	34.00	31.20	28.80	26.70
		Pattern FP10	92.30	75.60	64.00	55.40	48.80	43.40	39.10	35.60	32.60	30.10	27.90

Notes:

- The load span tables above is based on Allowable Stress Design (ASD). For loads based on ASCE 7-10 (LRFD), please refer to section 2.4.1 of ASCE 7-10 for the applicable load combinations using Allowable Stress Design.
- Based on 42" CF Mesa Panel with 26 ga. Mesa exterior & 26 ga. Mesa interior faces (min Fy=33 ksi).
- Fastener pattern FP1 is based on CF panel clips fastened to min. 14 ga. steel. Fastener options will be (2) 1/4"-14 SDS Type 3, (2) 1/4"-14 Self-Tapping, (2) 1/4"-14 Type 5 SDS, or 1/4"-20 Type 5 SDS. Fastener selection will be based on fastener pullout capacity from support steel members.
- Fastening patterns FP2, FP3, FP4 and FP5, includes FP1 plus 1, 2, 3 or 4 blind rivets, respectively, at supports per panel width.
Blind rivet spacing is 10.5" o.c. from female edge of panel seam.
- The through fasteners (FP9) are as follows: Panels fastened to min. 14 ga. steel supports with (4) 1/4"-14 SDS Type 3, (4) 1/4"-14 Self-Tapping, (4) 1/4"-14 Type 5 SDS, (4) 1/4"-20 Type 5 SDS, or (4) 1/4"-28 Type 5 SDS with nominal 5/8" diameter neoprene bonded washers spaced at 8.4" o.c. Fasteners shall be of sufficient length to penetrate through the support a minimum of 3/4". Fasteners selection will be based on fastener pullout capacity from support steel members.
- The through fasteners (FP10) are as follows: Panels fastened to min. 14 ga. steel supports with (5) 1/4"-14 SDS Type 3, (5) 1/4"-14 Self-Tapping, (5) 1/4"-14 Type 5 SDS, (5) 1/4"-20 Type 5 SDS, or (5) 1/4"-28 Type 5 SDS with nominal 5/8" diameter neoprene bonded washers spaced at 8.4" o.c. Fasteners shall be of sufficient length to penetrate through the support a minimum of 3/4". Fasteners selection will be based on fastener pullout capacity from support steel members.
- Allowable positive or suction load is the lowest value of panel bending, shear strength, deflection limit and connection strength for each fastener pattern.
- Allowable loads based on panel stress and deflection design criteria are derived from ASTM E 72 structural testing and calculated with factor of safety of 2.5 for bending stress, 3.0 for shear stresses and deflection limitation of L/180.
- The panel connection strength was determined from ASTM E 1592 testing and allowable loads are calculated with factor of safety of 2.0.
- The structural capacity of the supports are not considered and must be examined independently.
- This information is subject to change without notice. Please contact MBCI for most current information.



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			5'	6'	7'	8'	9'	10'	11'	12'	13'	14'	15'
5"	Two or More Spans	Bending & Shear	105.70	86.60	73.20	63.40	55.80	49.80	45.00	41.10	37.70	37.80	32.30
		Deflection (L/180)	148.40	120.50	100.40	85.40	73.70	64.40	56.70	50.40	45.10	40.40	36.30
		Pattern FP1	43.70	35.80	30.20	26.00	22.80	20.30	18.30	16.60	15.20	14.00	13.00
		Pattern FP2	64.00	52.50	44.30	38.20	33.50	29.80	26.80	24.30	22.30	20.50	19.10
		Pattern FP3	75.50	61.90	52.20	45.00	39.50	35.10	31.60	28.70	26.30	24.20	22.50
		Pattern FP4	80.90	66.30	55.90	48.20	42.30	37.60	33.90	30.70	28.20	26.00	24.10
		Pattern FP5	84.60	69.40	58.50	50.50	44.30	39.40	35.40	32.20	29.50	27.20	25.20
		Pattern FP9	90.90	74.50	62.90	54.20	47.60	42.30	38.10	34.60	31.70	29.20	27.10
		Pattern FP10	95.10	78.00	65.80	56.70	49.80	44.30	39.80	36.20	33.10	30.50	28.30
		6"	Two or More Spans	Bending & Shear	118.10	96.80	81.80	70.70	62.20	55.50	50.10	45.70	41.90
Deflection (L/180)	158.30			129.30	108.40	92.60	80.40	70.60	62.60	55.90	50.30	45.50	41.30
Pattern FP1	44.20			36.30	30.70	26.50	23.30	20.70	18.60	16.90	15.50	14.20	13.20
Pattern FP2	64.80			53.30	45.00	38.90	34.10	30.30	27.30	24.80	22.70	20.90	19.30
Pattern FP3	76.40			62.80	53.10	45.80	40.20	35.80	32.20	29.20	26.70	24.60	22.80
Pattern FP4	81.90			67.30	56.90	49.10	43.10	38.30	34.50	31.30	28.60	26.40	24.40
Pattern FP5	85.60			70.40	59.50	51.40	45.10	40.10	36.10	32.70	30.00	27.60	25.60
Pattern FP9	92.10			75.70	64.00	55.20	48.50	43.10	38.80	35.20	32.20	29.70	27.50
Pattern FP10	96.30			79.10	66.90	57.80	50.70	45.10	40.60	36.80	33.70	31.00	28.80

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