US

Metl Span CFR-42 Roof System 24 Ga. Exterior / 26 Ga. Interior Facings Allowable Uniform Load Chart forTwo or More Equal Spans															
								CFR Panel Thickness	Design Criteria	Allowable Load (psf) Panel Span (ft)					
42" wide	Bending & Shear	143.8	118.0	86.2	67.7	55.7	47.3								
2" thick	Deflection (L/240)	120.3	98.3	70.6	53.8	42.4	34.3								
2 fasteners/clip	Connection	58.5	53.5	46.8	42.5	34.5	28.5								
42" wide	Bending & Shear	165.5	135.8	99.3	77.9	64.0	54.3								
2.5" thick	Deflection (L/240)	147.5	121.0	87.6	67.4	53.7	43.9								
2 fasteners/clip	Connection	65.0	58.5	50.3	45.1	36.6	30.4								
42" wide	Bending & Shear	184.9	152.0	111.2	87.2	71.5	60.6								
3" thick	Deflection (L/240)	171.5	141.1	102.8	79.6	63.9	52.7								
2 fasteners/clip	Connection	71.3	63.5	53.6	47.6	38.7	32.2								
42" wide	Bending & Shear	196.2	161.6	118.6	93.0	76.2	64.5								
4" thick	Deflection (L/240)	210.0	173.4	127.3	99.4	80.6	67.2								
2 fasteners/clip	Connection	84.0	73.4	59.9	51.8	42.4	35.7								
42" wide	Bending & Shear	223.1	184.2	135.6	106.5	87.3	73.8								
5" thick	Deflection (L/240)	235.4	194.9	143.8	112.9	92.2	77.3								
3 fasteners/clip	Connection	86.5	75.5	61.8	53.4	44.4	37.9								
42" wide	Bending & Shear	247.2	204.5	151.0	118.9	97.6	82.5								
6" thick	Deflection (L/240)	247.8	205.4	152.2	120.1	98.5	82.9								
3 fasteners/clip	Connection	88.8	77.6	63.5	55.0	46.3	40.0								

Notes

- 1. Based on CFR-42 panel with 24 ga. exterior face (min Fy = 50 ksi) and 26 ga. interior face (min Fy = 33 ksi).
- Based on attachment at interior supports with CFR panel clip and (2 or 3 as shown above) 1/4"-14 Self-Drilling Tek 3 screws in min. 14 ga. steel or (2) 1/4"-14 Self-Drilling Tek 3 screws in min. 12 ga. steel. Two fasteners per clip are required at end supports. In lieu of self-drilling screws, self-tapping screws may be used.
- 3. Allowable positive load is the lowest value of panel bending strength, shear strength & deflection limit.
- 4. Allowable suction load is the lowest value of panel bending strength, shear strength, deflection limit and connection strength for each fastener pattern.
- 5. Connection loads may be increased with Fablok. Consult Metl-Span for additional loads.
- 6. 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, deflection limitation of L/240 and with a factor of safety of 2.0 for connection strength.
- 7. The clip fastener capacity was determined from manufacturer fastener pullout data and the allowable loads are calculated with a factor of safety of 3.0.
- 8. The structural capacity of the purlins are not considered and must be examined independently.
- 9. Multiple spans are based on 3 or more spans conditions.
- 10. For allowable snow loads please consult factory.







