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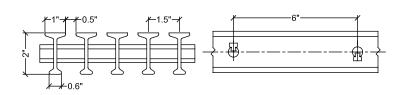
www.marcofiberglass.com

## **Product Group: Pultruded Fiberglass Grating**

2" Deep T-Bearing Bar (T 20-33)

2" Thick / 33% Open

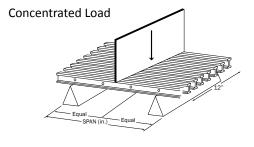




Span (inches)	CONCENTRATED LOAD in lbs/ft of width								Max	Apparent El x 10 <sup>6</sup>
	50	100	150	200	250	500	1000	2000	Load	(lb-in²)
12	0.001	0.001	0.002	0.002	0.003	0.005	0.010	0.020	16215	3.60
18	0.001	0.002	0.003	0.004	0.005	0.010	0.020	0.040	10810	6.07
24	0.002	0.004	0.005	0.007	0.009	0.018	0.037	0.073	8108	7.89
30	0.003	0.006	0.009	0.012	0.015	0.030	0.060	0.121	6486	9.32
36	0.005	0.010	0.014	0.019	0.024	0.048	0.096	0.192	5405	10.10
42	0.007	0.015	0.022	0.029	0.036	0.073	0.146	0.291	4633	10.60
48	0.010	0.021	0.031	0.042	0.052	0.104	0.208	0.417	4054	11.06
54	0.015	0.029	0.044	0.058	0.073	0.146	0.291	0.583	3603	11.26
60	0.020	0.040	0.059	0.079	0.099	0.198	0.396		3243	11.36
66	0.026	0.052	0.078	0.105	0.131	0.261	0.523		2948	11.46
72	0.034	0.068	0.101	0.135	0.169	0.338	0.676		2703	11.50

Span (inches)	UNIFORM LOAD in lbs/ft <sup>2</sup>									Apparent El x 10^6
	50	100	150	200	250	500	1000	2000	Load	(lb-in <sup>2</sup> )
12	<0.001	0.001	0.001	0.001	0.002	0.003	0.006	0.012	20269	3.60
18	0.001	0.002	0.003	0.004	0.005	0.009	0.019	0.038	13524	6.07
24	0.002	0.005	0.007	0.009	0.011	0.023	0.046	0.091	7398	7.89
30	0.005	0.009	0.014	0.019	0.024	0.047	0.094	0.189	5437	9.32
36	0.009	0.018	0.027	0.036	0.045	0.090	0.180	0.361	3612	10.10
42	0.016	0.032	0.048	0.064	0.080	0.159	0.319	0.637	2635	10.60
48	0.026	0.052	0.078	0.104	0.130	0.260	0.521		2030	11.06
54	0.041	0.082	0.123	0.164	0.205	0.410			1600	11.26
60	0.062	0.124	0.186	0.248	0.309	0.619			1295	11.36
66	0.090	0.180	0.269	0.359	0.449				1070	11.46
72	0.127	0.254	0.380	0.507	0.634				899	11.50

Properties Per Foot of Width	# of Bars	Load Bar Depth	Bar Centers	Weight/sq ft	
A = 4.34 in <sup>2</sup> I = 2.11 in <sup>4</sup> S <sub>T</sub> = 2.64 in <sup>3</sup> S <sub>B</sub> = 1.76 in <sup>3</sup>	8	2"	1.5"	4.44	



**Uniform Load** 



- These tables were developed in accordance with the test method developed by the Fiberglass Grating Manufacturers Council (FGMC) of the American Composites Manufacturers Association (ACMA) for the Fiberglass Grating Standard.
- 2. The designer should not exceed MAXIMUM RECOMMENDED load at any time. MAXIMUM LOAD represents a factor of safety of 2:1 for pultruded grating on ULTIMATE CAPACITY. ULTIMATE CAPACITY represents MAX LOAD observed at initial fracture.
- 3. Walking loads for maintenance traffic are typically a live load of 50 PSF. Deflections for worker comfort are typically limited to 0.375" (3/8") or SPAN divided by 120 under full live load. For a firmer feel under full live load or a line load 250 lbs/ft of width, limit deflections to 0.25" (1/4") or SPAN divided by 200.
- 4. The loads represented are for STATIC LOAD CONDITIONS at ambient temperature. Deflections for impact loads or dynamic loads will MULTIPLY the deflections shown by 2. Long term loads will result in added deflection due to creep in the material and will require higher factors of safety to ensure acceptable performance.
- 5. Deflections are limited to 0.5" (1/2") as recommended by the Fiberglass Grating Manufacturers Council of the American Composites Manufacturers Association.