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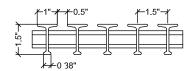
www.marcofiberglass.com

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

1.5" Deep T-Bearing Bar (T15-33)

1.5" Thick / 33% Open



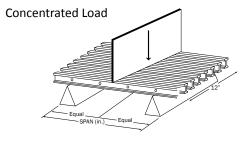




Span (inches)	CONCENTRATED LOAD in lbs/ft of width									Apparent El x 10^6
	50	100	150	200	250	500	1000	2000	Load	(lb-in²)
12	0.001	0.002	0.003	0.004	0.005	0.011	0.021	0.042	8235	1.71
18	0.003	0.005	0.008	0.011	0.013	0.026	0.053	0.106	5490	2.3
24	0.005	0.011	0.016	0.022	0.027	0.054	0.109	0.217	4118	2.65
30	0.010	0.020	0.031	0.041	0.051	0.102	0.205	0.409	3294	2.75
36	0.017	0.035	0.052	0.070	0.087	0.174	0.348	0.697	2745	2.79
42	0.027	0.055	0.082	0.109	0.136	0.273	0.545		2353	2.83
48	0.040	0.081	0.121	0.161	0.201	0.403			2059	2.86
54	0.057	0.114	0.170	0.227	0.284	0.568			1830	2.89
60	0.077	0.155	0.232	0.309	0.387				1647	2.91
66	0.102	0.204	0.307	0.409	0.511				1497	2.93

Span	UNIFORM LOAD in lbs/ft <sup>2</sup>								Max	Apparent
(inches)	50	100	150	200	250	500	1000	2000	Load	El x 10^6 (lb-in²)
12	0.001	0.001	0.002	0.003	0.003	0.007	0.013	0.026	10541	1.71
18	0.002	0.005	0.007	0.010	0.012	0.025	0.050	0.099	4685	2.3
24	0.007	0.014	0.020	0.027	0.034	0.068	0.136	0.272	2635	2.65
30	0.016	0.032	0.048	0.064	0.080	0.160	0.320	0.639	1687	2.75
36	0.033	0.065	0.098	0.131	0.163	0.327	0.653		1171	2.79
42	0.060	0.119	0.179	0.239	0.298	0.597			861	2.83
48	0.101	0201	0.302	0.403	0.503				659	2.86
54	0.160	0.319	0.479	0.638					521	2.89
60	0.242	0.483							422	2.91
66	0.351								348	2.93

Properties Per Foot of Width	# of Bars	Load Bar Depth	Bar Centers	Weight/sq ft
$A = 2.47 \text{ in}^2 \text{ I} = 0.70 \text{ in}^4 \text{ S}_T = 1.10 \text{ in}^3 \text{ S}_B = 0.82$	in³ 8	1.5"	1.5"	2.81



**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.