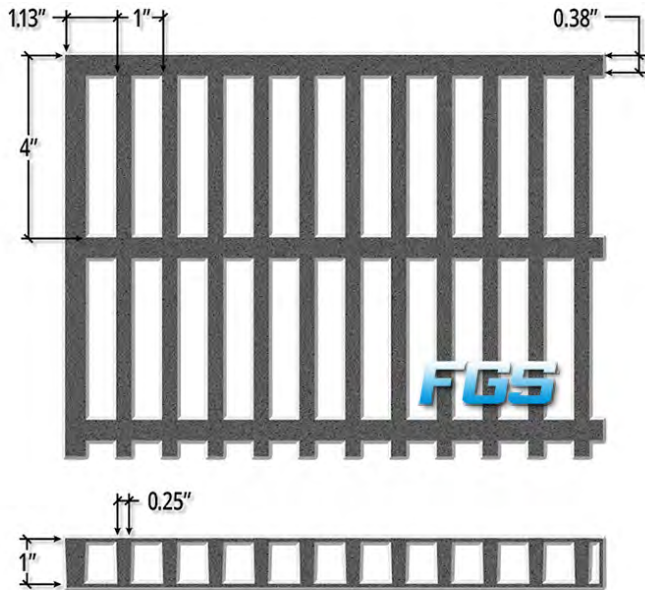


# 1" DEEP x 1" x 4" RECTANGULAR MESH GRATING



Bars ▶ 12  
 Bar Width ▶ 1/4"  
 Open Area ▶ 68%  
 Load Bar Centers ▶ 1"

Approximate Weight ▶ 2.61 lbs/ft<sup>2</sup>

Engineering Properties Per Foot of Width  
 A ▶ 2.69 in<sup>2</sup> I ▶ 0.22 in<sup>4</sup> S ▶ 0.45 in<sup>3</sup>



## UNIFORM LOAD DEFLECTION

	50 lbs/ft <sup>2</sup>	100 lbs/ft <sup>2</sup>	150 lbs/ft <sup>2</sup>	200 lbs/ft <sup>2</sup>	250 lbs/ft <sup>2</sup>	500 lbs/ft <sup>2</sup>	1000 lbs/ft <sup>2</sup>	2000 lbs/ft <sup>2</sup>	Maximum Load	Apparent EI x 10 <sup>-6</sup> (Lbs/In <sup>2</sup> )
12" SPAN ▶	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.05	0.10	▶ 3668	0.45
18" SPAN ▶	0.01	0.02	0.03	0.05	0.06	0.11	0.23	0.46	▶ 1892	0.50
24" SPAN ▶	0.03	0.07	0.10	0.14	0.17	0.35	0.69	---	▶ 961	0.52
30" SPAN ▶	0.08	0.17	0.25	0.33	0.42	---	---	---	▶ 615	0.53
36" SPAN ▶	0.17	0.34	0.51	0.68	---	---	---	---	▶ 427	0.54
42" SPAN ▶	0.30	0.60	---	---	---	---	---	---	▶ 314	0.56
46" SPAN ▶	0.43	---	---	---	---	---	---	---	▶ 287	0.57

## CONCENTRATED LINE LOAD DEFLECTION

	50 lbs/ft <sup>2</sup>	100 lbs/ft <sup>2</sup>	150 lbs/ft <sup>2</sup>	200 lbs/ft <sup>2</sup>	250 lbs/ft <sup>2</sup>	500 lbs/ft <sup>2</sup>	1000 lbs/ft <sup>2</sup>	2000 lbs/ft <sup>2</sup>	Maximum Load	Apparent EI x 10 <sup>-6</sup> (Lbs/In <sup>2</sup> )
12" SPAN ▶	<0.01	<0.01	0.01	0.02	0.02	0.04	0.08	0.16	▶ 1834	0.45
18" SPAN ▶	0.01	0.02	0.04	0.05	0.06	0.12	0.24	0.49	▶ 1419	0.50
24" SPAN ▶	0.03	0.06	0.08	0.11	0.14	0.28	0.56	---	▶ 961	0.52
30" SPAN ▶	0.05	0.11	0.16	0.21	0.27	0.53	---	---	▶ 769	0.53
36" SPAN ▶	0.09	0.18	0.27	0.36	0.45	---	---	---	▶ 641	0.54
42" SPAN ▶	0.14	0.28	0.41	0.55	0.69	---	---	---	▶ 549	0.56
46" SPAN ▶	0.18	0.36	---	---	---	---	---	---	▶ 501	0.57

## POINT LOAD DEFLECTION

	100 lbs	200 lbs	500 lbs	750 lbs	1000 lbs	1500 lbs	2000 lbs
18" SPAN ▶	<0.01	0.01	0.04	0.05	0.07	0.11	0.15
24" SPAN ▶	0.02	0.04	0.09	0.14	0.19	0.28	0.37
30" SPAN ▶	0.04	0.07	0.18	0.27	0.37	0.55	---
36" SPAN ▶	0.06	0.11	0.29	0.43	0.57	---	---
42" SPAN ▶	0.09	0.17	0.43	0.65	---	---	---

- ▶ 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*.
- ▶ The designer should not exceed **MAXIMUM RECOMMENDED** load at any time. **MAXIMUM LOAD** represents a 5:1 factor of safety on **ULTIMATE CAPACITY**. **ULTIMATE CAPACITY** represents **MAX LOAD** observed at initial fracture.
- ▶ Walking loads for maintenance traffic are typically a live load of 50 PSF. Deflections for worker comfort are typically limited to 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 1/4" or SPAN divided by 200.
- ▶ The loads represented are for **STATIC LOAD CONDITIONS** at ambient temperature. Deflection 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.
- ▶ Deflections are limited to 1/2" as recommended by the *Fiberglass Grating Manufacturers Council* of the *American Composites Manufacturers Association*.
- ▶ For applications at elevated temperatures, consult **Fiberglass Grating Systems**.