

DEFI's fiberglass reinforced grating products are non-conductive, corrosion resistant, fire-retardant, light weight and are high strength. They provide excellent slip resistance and worker safety. All of our grating products are available as stock panels or can be fabricated to size to meet your specifications.



Applications

- Floor systems
- Walkways
- Work platforms
- Stairs
- Ramps
- Trench covers
- Catwalks

Features

- Corrosion Resistant
- Slip-Resistant Gritted Top Surface
- Lightweight
- Low Coefficient of Expansion & Contraction

Benefits

- Reduced Maintenance / Replacement Costs
- Enhanced Workplace Safety
- Reduced Installation Costs
- Dimensionally Stable in Many Environments

Molded Grating

DEFI's molded grating provides proven corrosion resistance and reliable service under extreme conditions. The interwoven square mesh construction provides bi-directional strength allowing for efficient panel usage and cutting to minimize waste. The high resin to glass ratio (approximately 65% resin to 35% glass by weight) provides excellent service life in the most demanding applications.

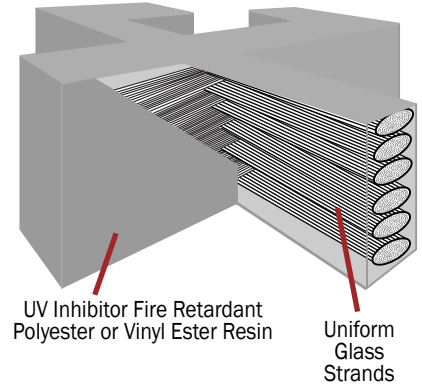
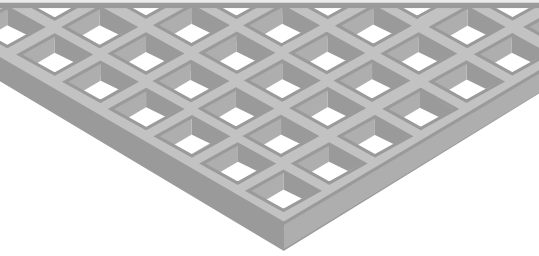
DEFI's molded grating is available in square or rectangular mesh patterns with either Meniscus (Concave - no grit) or Gritted slip resistant top surfaces

Standard Resin Systems

DEFI's molded grating is available in three standard resin systems each providing differing levels of corrosion protection. All three resin systems meet Class 1 Flame Spread Rating per ASTM E-84 test standards.

GP: a General Purpose Polyester Resin System offers good corrosion resistance at an economical price. Standard colors available: Green, Yellow, Dark Gray and Light Gray.

IFR: a premium grade Isophthalic Polyester Resin System that provides excellent corrosion protection. Standard colors available: Green, Yellow, Dark Gray and Light Gray



Available Top Surfaces

Grit top - quartz grit anti-slip surface

Meniscus - concave, half moon cross section

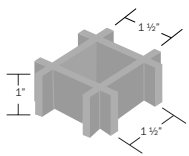
Both GP and IFR resin systems meet USDA standards for use in food grade applications for incidental food contact.

VFR: a Vinyl Ester Resin System provides the highest level of corrosion protection. Standard colors available: Orange

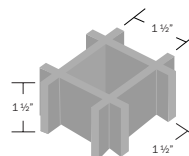


photo courtesy epi

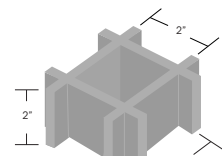
Standard Grid Dimensions



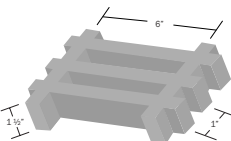
1" thick, 1 1/2" x 1 1/2", square grid
Bearing bars 1/4" thick
Open area of 69%



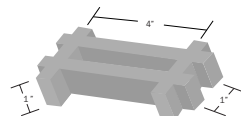
1 1/2" thick, 1 1/2" x 1 1/2", square grid
Bearing bars 1/4" thick
Open area of 69%



2" thick, 2" x 2", square grid
Bearing bars 5/16" thick
Open area of 71%



1 1/2" thick, 1" x 6", rectangular grid
Bearing bars 0.6" thick
Open area of 38%

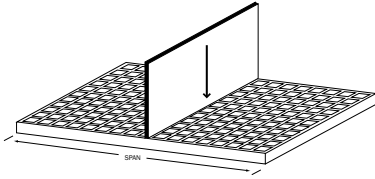


1" thick, 1" x 4", rectangular grid
Bearing bars 1/4" thick
Open area of 68%

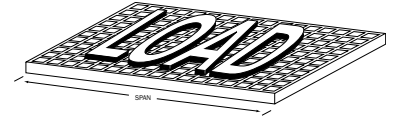
STANDARD PANEL SIZES

1" x 1" x 4"	10' wide x 3' long
1 1/2" x 1" x 6"	4' wide x 12' long
1" x 1 1/2" x 1 1/2"	3' wide x 10' long
	4' wide x 12' long
1 1/2" x 1 1/2" x 1 1/2"	3' wide x 10' long
	4' wide x 8' long
	4' wide x 12' long
	5' wide x 10' long
2" x 2" x 2"	4' wide x 12" long

MOLDED LOAD & DEFLECTION DATA



1. This table was 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 5:1 factor of safety 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 3/8" or SPAN divided by 120 under full live load. For a firmer feel under full live load or a line load 250lbs/ft of width, limit deflections to 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 1/2" as recommended by the Fiberglass Grating Manufacturers Council of the American Composites Manufacturers Association.



1" x 1" x 4" **1" Thick** **Rectangular Grid**

Span (inches)	CONCENTRATED LOAD in Lbs/ft ²								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	0.01	0.02	0.02	0.04	0.08	0.16	1,834	0.45
18"	0.01	0.02	0.04	0.05	0.06	0.12	0.24	0.49	1,419	0.5
24"	0.03	0.06	0.08	0.11	0.14	0.28	0.56		961	0.52
30"	0.05	0.11	0.16	0.21	0.27	0.53			769	0.53
36"	0.09	0.18	0.27	0.36	0.45				641	0.54
42"	0.14	0.28	0.41	0.55	0.69				549	0.56
48"										
54"										
60"										

1" x 1" x 4" **1" Thick** **Rectangular Grid**

Span (inches)	UNIFORM LOAD in Lbs/ft of width								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.05	0.10	3,668	0.045
18"	0.01	0.02	0.03	0.05	0.06	0.11	0.23	0.46	1,892	0.50
24"	0.03	0.07	0.10	0.14	0.17	0.35	0.69		961	0.52
30"	0.08	0.17	0.25	0.33	0.42				615	0.53
36"	0.17	0.34	0.51	0.68					427	0.54
42"	0.30	0.60							314	0.56
48"										
54"										
60"										

1 1/2" x 1" x 6" **1 1/2" Thick** **Rectangular Grid**

Span (inches)	CONCENTRATED LOAD in Lbs/ft ²								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.03	0.05	4,209	1.43
18"	<0.01	<0.01	<0.01	0.01	0.02	0.03	0.07	0.13	2,810	1.83
24"	<0.01	0.01	0.02	0.03	0.03	0.06	0.13	0.26	2,105	2.22
30"	0.01	0.02	0.03	0.05	0.06	0.12	0.23	0.47	1,684	2.42
36"	0.02	0.04	0.06	0.08	0.10	0.20	0.39		1,403	2.48
42"	0.03	0.06	0.09	0.12	0.15	0.30	0.61		1,203	2.55
48"	0.04	0.09	0.13	0.18	0.22	0.45			1,052	2.58
54"	0.06	0.13	0.19	0.25	0.31	0.63			935	2.62
60"	0.09	0.17	0.26	0.34	0.43				842	2.63

1 1/2" x 1" x 6" **1 1/2" Thick** **Rectangular Grid**

Span (inches)	UNIFORM LOAD in Lbs/ft of width								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.03	6,623	1.43
18"	<0.01	<0.01	<0.01	0.01	0.02	0.03	0.06	0.12	3,747	1.83
24"	<0.01	0.02	0.02	0.03	0.04	0.08	0.16	0.32	2,105	2.22
30"	0.02	0.04	0.05	0.07	0.09	0.18	0.36		1,347	2.42
36"	0.04	0.07	0.11	0.15	0.18	0.37			935	2.48
42"	0.07	0.13	0.20	0.26	0.33	0.66			687	2.55
48"	0.11	0.22	0.33	0.45	0.56				526	2.58
54"	0.18	0.35							416	2.62
60"	0.27	0.53							337	2.63

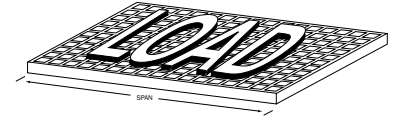
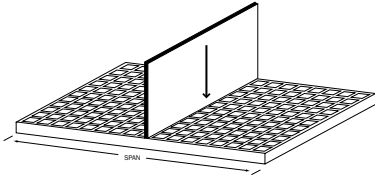
1" x 1 1/2" x 1 1/2" **1" Thick** **Square Grid**

Span (inches)	CONCENTRATED LOAD in Lbs/ft ²								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	0.01	0.02	0.02	0.03	0.06	0.11	0.23	1,189	0.31
18"	0.02	0.04	0.05	0.07	0.09	0.18	0.35		934	0.34
24"	0.04	0.08	0.12	0.16	0.20	0.40			668	0.36
30"	0.08	0.15	0.23	0.30	0.38				534	0.37
36"	0.13	0.26	0.38	0.51	0.64				360	0.38
42"										
48"										
54"										
60"										

1" x 1 1/2" x 1 1/2" **1" Thick** **Square Grid**

Span (inches)	UNIFORM LOAD in Lbs/ft of width								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	0.01	0.01	0.02	0.04	0.07	0.14	2,378	0.31
18"	0.02	0.03	0.05	0.07	0.08	0.17	0.33	0.66	1,245	0.34
24"	0.05	0.10	0.15	0.20	0.25	0.50			668	0.36
30"	0.12	0.24	0.36	0.47	0.59				427	0.37
36"	0.24	0.48							240	0.38
42"	0.43								205	0.39
48"										
54"										
60"										

MOLDED LOAD & DEFLECTION DATA - continued



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2. 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.
3. 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 250lbs/ft of width, limit deflections to 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 1/2" as recommended by the Fiberglass Grating Manufacturers Council of the American Composites Manufacturers Association.

1 1/2" x 3/4" x 3/4" ♿ **1 1/2" Thick** **Square Grid**

Span (inches)	CONCENTRATED LOAD in Lbs/ft ²								MAX LOAD	APPARENT EI x 10 ⁻⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.03	0.06	3,090	1.14
18"	<0.01	<0.01	0.01	0.02	0.02	0.04	0.09	0.17	2,060	1.43
24"	<0.01	0.02	0.03	0.04	0.04	0.09	0.18	0.35	1,545	1.64
30"	0.02	0.03	0.05	0.06	0.08	0.16	0.32	0.64	1,236	1.75
36"	0.03	0.05	0.08	0.11	0.13	0.27	0.53		1,030	1.83
42"	0.04	0.08	0.12	0.17	0.21	0.41			883	1.87
48"	0.06	0.12	0.18	0.24	0.30	0.60			773	1.90
54"	0.08	0.17	0.25	0.34	0.42				687	1.93
60"	0.12	0.23	0.35	0.46	0.58				618	1.94

1 1/2" x 3/4" x 3/4" ♿ **1 1/2" Thick** **Square Grid**

Span (inches)	UNIFORM LOAD in Lbs/ft of width								MAX LOAD	APPARENT EI x 10 ⁻⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.04	6,180	1.14
18"	<0.01	<0.01	0.01	0.02	0.02	0.04	0.08	0.16	2,747	1.43
24"	0.01	0.02	0.03	0.04	0.05	0.11	0.22	0.44	1,545	1.64
30"	0.03	0.05	0.08	0.10	0.13	0.25	0.50		989	1.75
36"	0.05	0.10	0.15	0.20	0.25	0.50			687	1.83
42"	0.09	0.18	0.27	0.36	0.45				505	1.87
48"	0.15	0.30	0.45	0.60					386	1.90
54"	0.24	0.48							305	1.93
60"	0.36								247	1.94

1 1/2" x 1 1/2" x 1 1/2" **1 1/2" Thick** **Square Grid**

Span (inches)	CONCENTRATED LOAD in Lbs/ft ²								MAX LOAD	APPARENT EI x 10 ⁻⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.05	0.09	2,041	0.80
18"	<0.01	0.01	0.02	0.02	0.03	0.05	0.11	0.22	1,360	1.11
24"	0.01	0.02	0.03	0.05	0.06	0.12	0.23	0.46	1,021	1.25
30"	0.02	0.04	0.06	0.09	0.11	0.21	0.43		816	1.31
36"	0.04	0.07	0.11	0.14	0.18	0.36			680	1.35
42"	0.06	0.11	0.17	0.23	0.28	0.56			583	1.37
48"	0.08	0.17	0.25	0.33	0.42				510	1.38
54"	0.12	0.24	0.36	0.48	0.59				453	1.38
60"										

1 1/2" x 1 1/2" x 1 1/2" **1 1/2" Thick** **Square Grid**

Span (inches)	UNIFORM LOAD in Lbs/ft of width								MAX LOAD	APPARENT EI x 10 ⁻⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.05	0.06	4,082	0.08
18"	0.01	0.01	0.02	0.02	0.03	0.05	0.23	0.21	1,813	1.11
24"	0.01	0.03	0.04	0.06	0.07	0.14	0.69	0.58	1,021	1.25
30"	0.03	0.07	0.10	0.13	0.17	0.33			635	1.31
36"	0.07	0.13	0.20	0.27	0.34	0.67			453	1.35
42"	0.12	0.25	0.37	0.49	0.62				333	1.37
48"	0.21	0.42	0.63						255	1.38
54"	0.33	0.67							201	1.38
60"										

2" x 2" x 2" **2" Thick** **Square Grid**

Span (inches)	CONCENTRATED LOAD in Lbs/ft ²								MAX LOAD	APPARENT EI x 10 ⁻⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.04	4,632	1.80
18"	<0.01	<0.01	<0.01	0.01	0.01	0.03	0.06	0.11	3,088	2.13
24"	<0.01	0.01	0.02	0.02	0.03	0.06	0.12	0.24	2,316	2.40
30"	0.01	0.02	0.03	0.05	0.06	0.11	0.23	0.45	1,853	2.50
36"	0.02	0.04	0.06	0.08	0.10	0.19	0.38		1,544	2.55
42"	0.03	0.06	0.09	0.12	0.15	0.30	0.59		1,323	2.61
48"	0.04	0.09	0.13	0.17	0.22	0.43			1,158	2.65
54"	0.06	0.12	0.18	0.24	0.30	0.61			1,029	2.69
60"	0.08	0.17	0.25	0.33	0.42				926	2.71

2" x 2" x 2" **2" Thick** **Square Grid**

Span (inches)	UNIFORM LOAD in Lbs/ft of width								MAX LOAD	APPARENT EI x 10 ⁻⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.03	9,264	1.80
18"	<0.01	<0.01	<0.01	0.01	0.01	0.03	0.05	0.11	4,117	2.13
24"	<0.01	0.02	0.02	0.03	0.04	0.08	0.15	0.30	2,316	2.40
30"	0.02	0.04	0.05	0.07	0.09	0.18	0.35		1,482	2.50
36"	0.04	0.07	0.11	0.14	0.18	0.36			1,029	2.55
42"	0.06	0.13	0.19	0.26	0.32	0.65			756	2.61
48"	0.11	0.22	0.33	0.43	0.54				579	2.65
54"	0.17	0.34	0.51	0.69					457	2.69
60"	0.26	0.52							371	2.71

Pultruded Grating

DEFI's pultruded grating provides the capability to support heavier loads and longer spans when compared to molded grating of similar depth and weight. DEFI has an extensive offering of pultruded gratings to meet most every need from ADA compliant walkways to heavy duty vehicular traffic conditions. DEFI's pultruded gratings are built to withstand corrosive conditions that also require high strength.

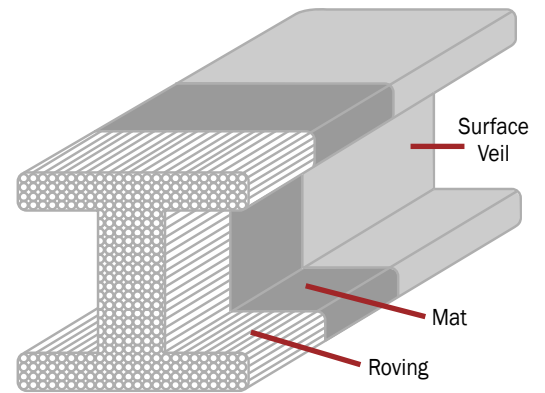
Standard Resin Systems

DEFI's pultruded grating is available in two standard resin systems each providing differing levels of corrosion protection. Both resin systems meet Class 1 Flame Spread Rating per ASTM E-84 test standards.

IFR: a premium grade Isophthalic Polyester Resin System that provides excellent corrosion protection. Standard colors available: Yellow and Gray

VFR: a Vinyl Ester Resin System provides the highest level of corrosion protection. Standard colors available: Yellow and Gray

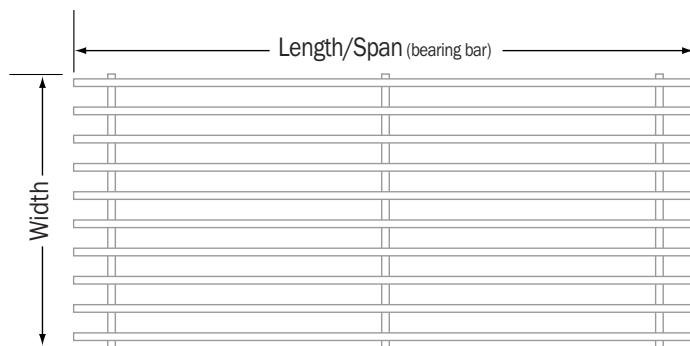
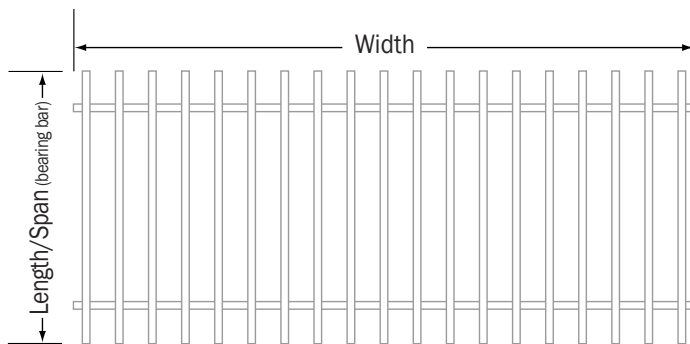
Interior Layering of Raw Materials



Applications

- Floor Systems
- Walkways
- Work Platforms
- Stairs
- Ramps
- Trench Covers
- Catwalks

Standard Dimensions

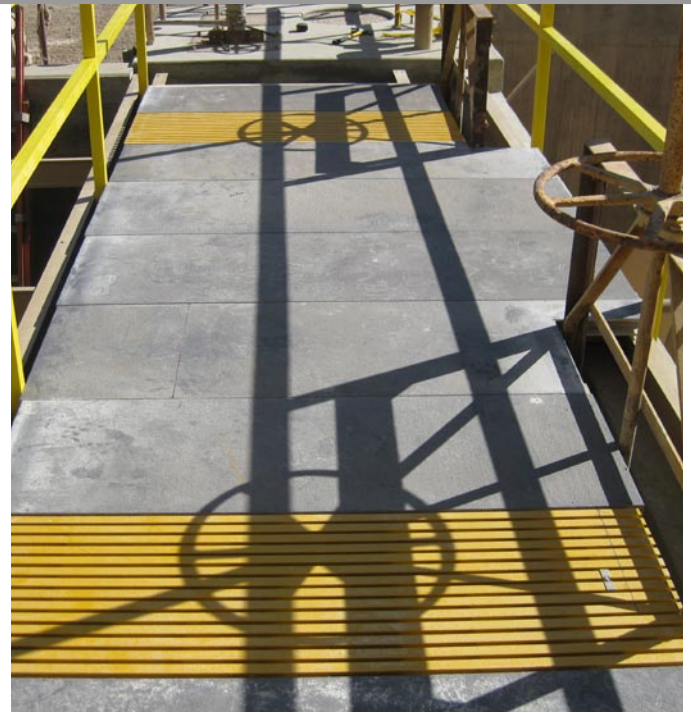


STANDARD PANEL SIZES

3' wide x 20' long

4' wide x 20' long





Fiber reinforced polymer pultruded grating is designed and manufactured using both I-Bar and T-Bar profiles to provide lasting performance to withstand corrosion. Profiles are non conductive, electromagnetically and transparent, and environmentally safe.

Safer Surface

Traction and safety on walking surfaces are enhanced by coarse epoxy coating walking surfaces.

Better Support & Stability

Heavier loads are supported and stabilized because the cross rod system provides a mechanical lock at each bearing bar.

Unidirectional Strength

Cross rods and bearing bars lock mechanically for maximum strength.

Easy Fabrication

Standard hand tools are used to cut and fabricate. Panels are lightweight, reducing installation costs.

Low Maintenance

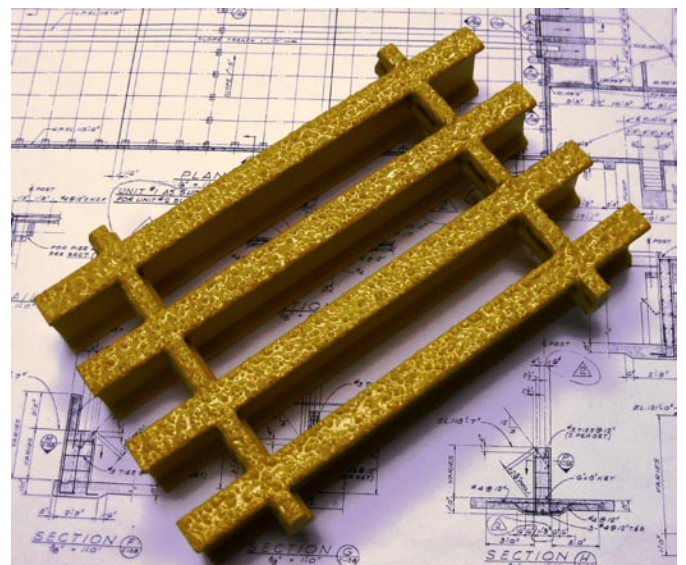
Angled design allows for easy cleaning, as dirt, cleaning fluids and rainwater simply wash away.

Extended Life

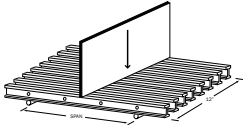
Protective coated resin surface increases resistance to chemical corrosion and continuous ultraviolet exposure.

Stress Resistance

Continuous glass rovings resist tension, compression and bending while providing longitudinal strength. Continuous glass mat increase transverse strength and resistance to impact.



PULTRUDED LOAD & DEFLECTION DATA

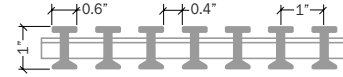


1. This table was developed in accordance with the test method developed by the Fiberglass Grating Manufacturers Council (FGMC) of the American Composites Manufacturers Association (ACMA) for the Fiberglass Grating Standard.
2. The designer should not exceed MAXIMUM RECOMMENDED load at any time. MAXIMUM LOAD represents a 5:1 factor of safety 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 3/8" or SPAN divided by 120 under full live load. For a firmer feel under full live load or a line load 250lbs/ft of width, limit deflections to 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 1/2" as recommended by the Fiberglass Grating Manufacturers Council of the American Composites Manufacturers Association.



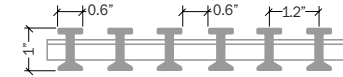
I 10-40 I Bearing Bar 1" Thick 40% Open Area

Span (inches)	CONCENTRATED LOAD in Lbs/ft ²								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.04	8,028	1.80
18"	<0.01	<0.01	<0.01	0.01	0.01	0.03	0.06	0.12	5,352	2.10
24"	<0.01	0.01	0.02	0.03	0.03	0.06	0.13	0.25	4,014	2.28
30"	0.01	0.02	0.04	0.05	0.06	0.12	0.24	0.47	3,211	2.37
36"	0.02	0.06	0.06	0.08	0.10	0.20	0.40		2,676	2.42
42"	0.03	0.06	0.09	0.13	0.16	0.32			2,294	2.44
48"	0.05	0.09	0.14	0.19	0.24	0.47			2,007	2.45
54"	0.05	0.13	0.20	0.27	0.33				1,784	2.46
60"	0.09	0.18	0.27	0.36	0.46				1,606	2.47



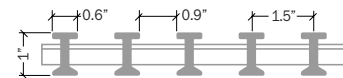
I 10-50 I Bearing Bar 1" Thick 50% Open Area

Span (inches)	CONCENTRATED LOAD in Lbs/ft ²								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.03	0.05	8,028	1.80
18"	<0.01	<0.01	0.01	0.01	0.02	0.04	0.07	0.15	5,352	2.10
24"	<0.01	0.02	0.02	0.03	0.04	0.08	0.15	0.31	4,014	2.28
30"	0.01	0.03	0.04	0.06	0.07	0.14	0.28		3,211	2.37
36"	0.02	0.05	0.07	0.10	0.12	0.24	0.48		2,676	2.42
42"	0.04	0.08	0.11	0.15	0.19	0.38			2,294	2.44
48"	0.06	0.11	0.17	0.22	0.28				2,007	2.45
54"	0.08	0.16	0.24	0.32	0.40				1,784	2.46
60"	0.11	0.22	0.33	0.43					1,606	2.47



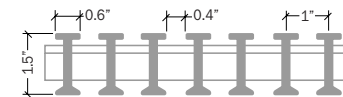
I 10-60 I Bearing Bar 1" Thick 60% Open Area

Span (inches)	CONCENTRATED LOAD in Lbs/ft ²								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.03	0.07	5,755	1.10
18"	<0.01	<0.01	0.01	0.02	0.02	0.04	0.09	0.18	3,850	1.38
24"	<0.01	0.02	0.03	0.04	0.05	0.09	0.19	0.37	2,888	1.54
30"	0.02	0.03	0.05	0.07	0.09	0.17	0.25		2,310	1.63
36"	0.03	0.06	0.09	0.12	0.15	0.29			1,925	1.66
42"	0.05	0.09	0.14	0.18	0.23	0.46			1,650	1.68
48"	0.07	0.14	0.20	0.27	0.34				1,444	1.70
54"	0.10	0.19	0.29	0.38	0.48				1,283	1.72
60"	0.13	0.26	0.39						1,155	1.74



I 15-40 I Bearing Bar 1 1/2" Thick 40% Open Area

Span (inches)	CONCENTRATED LOAD in Lbs/ft ²								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.04	11,004	1.80
18"	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.05	9,356	4.88
24"	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.05	0.10	7,017	5.90
30"	<0.01	<0.01	0.01	0.02	0.02	0.04	0.09	0.18	5,614	6.40
36"	<0.01	0.01	0.02	0.03	0.04	0.07	0.15	0.29	4,678	6.66
42"	0.01	0.02	0.03	0.05	0.06	0.11	0.23	0.46	4,010	6.75
48"	0.02	0.03	0.05	0.07	0.08	0.17	0.34		3,509	6.81
54"	0.02	0.05	0.07	0.10	0.12	0.24	0.48		3,119	6.83
60"	0.03	0.07	0.10	0.13	0.16	0.33			2,807	6.85



Span (inches)	UNIFORM LOAD in Lbs/ft of width								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.03	17,605	1.80
18"	<0.01	<0.01	<0.01	0.01	0.01	0.03	0.05	0.11	7,969	2.10
24"	<0.01	0.02	0.02	0.03	0.04	0.08	0.16	0.32	3,961	2.28
30"	0.02	0.04	0.06	0.07	0.09	0.19	0.37		2,574	2.37
36"	0.04	0.08	0.11	0.15	0.19	0.38			1,791	2.42
42"	0.07	0.14	0.21	0.28	0.35				1,314	2.44
48"	0.12	0.24	0.35	0.47					1,004	2.45
54"	0.19	0.38							792	2.46
60"	0.28								713	2.47

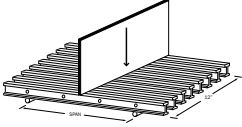
Span (inches)	UNIFORM LOAD in Lbs/ft of width								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.03	11,887	1.36
18"	<0.01	<0.01	0.01	0.01	0.02	0.04	0.07	0.14	6,299	1.65
24"	0.01	0.02	0.03	0.04	0.05	0.10	0.19	0.38	3,621	1.88
30"	0.02	0.04	0.07	0.09	0.11	0.22	0.44		2,308	1.99
36"	0.05	0.09	0.14	0.18	0.23	0.45			1,591	2.01
42"	0.08	0.17	0.25	0.33	0.42				1,175	2.03
48"	0.14	0.28	0.42						898	2.05
54"	0.22	0.45							709	2.06
60"	0.34								638	2.07

Span (inches)	UNIFORM LOAD in Lbs/ft of width								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.04	7,944	1.10
18"	<0.01	<0.01	0.01	0.02	0.02	0.04	0.08	0.17	5,296	1.38
24"	0.01	0.02	0.04	0.05	0.06	0.12	0.23	0.47	2,935	1.54
30"	0.03	0.05	0.08	0.11	0.14	0.27			1,845	1.63
36"	0.06	0.11	0.17	0.22	0.27				1,281	1.66
42"	0.10	0.20	0.30	0.40	0.50				943	1.68
48"	0.17	0.34							721	1.70
54"	0.27								571	1.72
60"	0.40								514	1.74

Span (inches)	UNIFORM LOAD in Lbs/ft of width								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	21,051	3.00
18"	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.05	14,559	4.88
24"	<0.01	<0.01	<0.01	0.01	0.02	0.03	0.06	0.12	7,136	5.90
30"	<0.01	0.01	0.02	0.03	0.03	0.07	0.14	0.28	4,405	6.40
36"	0.01	0.03	0.04	0.06	0.07	0.14	0.27		3,161	6.66
42"	0.03	0.05	0.08	0.10	0.13	0.25	0.50		2,292	6.75
48"	0.04	0.09	0.13	0.17	0.21	0.42			1,746	6.81
54"	0.07	0.14	0.20	0.27	0.34				1,387	6.83
60"	0.10	0.21	0.31	0.41	0.51				1,124	6.85

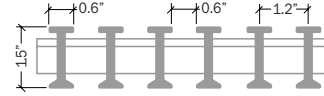
PULTRUDED LOAD & DEFLECTION DATA

- This table was 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 250lbs/ft of width, limit deflections to 1/4" or SPAN divided by 200.
- 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.
- Deflections are limited to 1/2" as recommended by the Fiberglass Grating Manufacturers Council of the American Composites Manufacturers Association.



I 15-50 I Bearing Bar 1 1/2" Thick 50% Open Area

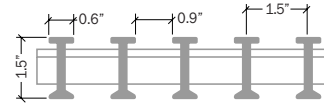
Span (inches)	CONCENTRATED LOAD in Lbs/ft ²								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.03	11,055	2.46
18"	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.03	0.06	7,370	4.00
24"	<0.01	<0.01	<0.01	0.01	0.01	0.03	0.06	0.12	5,528	4.84
30"	<0.01	0.01	0.02	0.02	0.03	0.05	0.11	0.21	4,422	5.25
36"	<0.01	0.02	0.03	0.04	0.04	0.09	0.18	0.36	3,685	5.46
42"	0.01	0.03	0.04	0.06	0.07	0.14	0.28		3,159	5.53
48"	0.02	0.04	0.06	0.08	0.10	0.21	0.41		2,764	5.58
54"	0.03	0.06	0.09	0.12	0.15	0.03			2,457	5.60
60"	0.04	0.08	0.12	0.16	0.20	0.40			2,211	5.61



Span (inches)	UNIFORM LOAD in Lbs/ft of width								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	13,992	2.46
18"	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.03	0.06	9,328	4.00
24"	<0.01	<0.01	0.01	0.02	0.02	0.04	0.07	0.15	5,878	4.84
30"	<0.01	0.02	0.03	0.03	0.04	0.08	0.17	0.34	3,486	5.25
36"	0.02	0.03	0.05	0.07	0.08	0.17	0.33		2,485	5.46
42"	0.03	0.06	0.09	0.12	0.15	0.31			1,806	5.53
48"	0.05	0.10	0.16	0.21	0.26				1,384	5.58
54"	0.08	0.17	0.25	0.33	0.41				1,091	5.60
60"	0.13	0.25	0.38	0.50					886	5.61

I 15-60 I Bearing Bar 1 1/2" Thick 60% Open Area

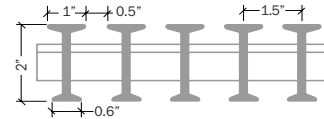
Span (inches)	CONCENTRATED LOAD in Lbs/ft ²								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.04	8,958	1.99
18"	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.04	0.08	5,972	3.23
24"	<0.01	<0.01	0.01	0.01	0.02	0.04	0.07	0.15	4,479	3.91
30"	<0.01	0.01	0.02	0.03	0.03	0.07	0.13	0.27	3,853	4.24
36"	0.01	0.02	0.03	0.04	0.06	0.11	0.22	0.44	2,986	4.41
42"	0.02	0.03	0.05	0.07	0.09	0.17	0.35		2,559	4.47
48"	0.03	0.05	0.08	0.10	0.13	0.26	0.51		2,240	4.51
54"	0.04	0.07	0.11	0.15	0.18	0.36			1,991	4.52
60"	0.05	0.10	0.15	0.20	0.25	0.50			1,792	4.54



Span (inches)	UNIFORM LOAD in Lbs/ft of width								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	10,524	1.99
18"	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.04	0.07	7,016	3.23
24"	<0.01	<0.01	0.01	0.02	0.02	0.05	0.09	0.18	4,585	3.91
30"	0.01	0.02	0.03	0.04	0.05	0.10	0.21	0.42	2,831	4.24
36"	0.02	0.04	0.06	0.08	0.10	0.21	0.41		2,006	4.41
42"	0.04	0.08	0.11	0.15	0.19	0.38			1,451	4.47
48"	0.06	0.13	0.19	0.26	0.32				1,117	4.51
54"	0.10	0.20	0.31	0.41	0.51				885	4.52
60"	0.16	0.31	0.47						717	4.54

T 20-33 T Bearing Bar 2" Thick 33% Open Area

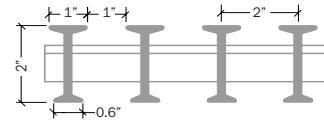
Span (inches)	CONCENTRATED LOAD in Lbs/ft ²								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	16,215	3.60
18"	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.04	10,810	6.07
24"	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.04	0.07	8,108	7.89
30"	<0.01	<0.01	<0.01	0.01	0.02	0.03	0.06	0.12	6,486	9.32
36"	<0.01	<0.01	0.01	0.02	0.02	0.05	0.10	0.19	5,405	10.10
42"	<0.01	0.01	0.02	0.03	0.04	0.07	0.15	0.29	4,633	10.60
48"	0.01	0.02	0.03	0.04	0.05	0.10	0.21	0.42	4,054	11.06
54"	0.01	0.03	0.04	0.06	0.07	0.15	0.29		3,603	11.26
60"	0.02	0.04	0.06	0.08	0.10	0.20	0.40		3,243	11.36



Span (inches)	UNIFORM LOAD in Lbs/ft of width								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	20,269	3.60
18"	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.04	13,524	6.07
24"	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.05	0.09	7,398	7.89
30"	<0.01	<0.01	0.01	0.02	0.02	0.05	0.09	0.19	5,437	9.32
36"	<0.01	0.02	0.03	0.04	0.05	0.09	0.18	0.36	3,612	10.10
42"	0.02	0.03	0.05	0.06	0.08	0.16	0.32		2,635	10.60
48"	0.03	0.05	0.08	0.10	0.13	0.26			2,030	11.06
54"	0.04	0.08	0.12	0.16	0.21	0.41			1,600	11.26
60"	0.06	0.12	0.19	0.25	0.31				1,295	11.36

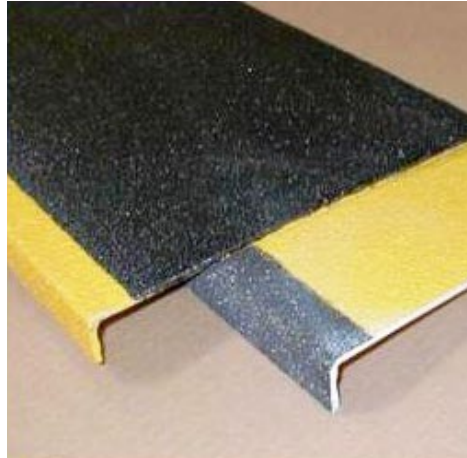
T 20-50 T Bearing Bar 2" Thick 50% Open Area

Span (inches)	CONCENTRATED LOAD in Lbs/ft ²								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.04	13,302	1.80
18"	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.03	0.06	8,868	4.15
24"	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.05	0.09	6,651	6.17
30"	<0.01	<0.01	0.01	0.02	0.02	0.04	0.08	0.15	5,321	7.35
36"	<0.01	0.01	0.02	0.02	0.03	0.06	0.12	0.24	4,434	7.95
42"	<0.01	0.02	0.03	0.04	0.05	0.09	0.19	0.37	3,801	8.31
48"	0.01	0.03	0.04	0.05	0.07	0.13	0.27		3,326	8.55
54"	0.02	0.04	0.06	0.08	0.09	0.19	0.28		2,956	8.65
60"	0.03	0.05	0.08	0.10	0.13	0.26	0.51		2,660	8.75



Span (inches)	UNIFORM LOAD in Lbs/ft of width								MAX LOAD	APPARENT EI x 10 ⁶ lb-in ²
	50	100	150	200	250	500	1000	2000		
12"	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.03	23,936	1.80
18"	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.03	0.06	8,624	4.15
24"	<0.01	<0.01	<0.01	0.01	0.02	0.03	0.06	0.12	6,468	6.17
30"	<0.01	0.01	0.01	0.02	0.03	0.06	0.12	0.24	4,242	7.35
36"	0.01	0.02	0.03	0.05	0.06	0.12	0.23	0.46	2,946	7.95
42"	0.02	0.04	0.06	0.08	0.10	0.20	0.41		2,153	8.31
48"	0.03	0.07	0.10	0.14	0.17	0.34			1,672	8.55
54"	0.05	0.11	0.16	0.21	0.27				1,310	8.65
60"	0.08	0.16	0.24	0.32	0.40				1,062	8.75

Stair Treads & Stair Tread Covers



Cut your own stair tread from DEFI Stair Tread panels.

Economy - DEFI stocks stair treads in two standard sizes 1 1/2" square grid in 12" x 144" x 1 1/2" panels and 1" x 6" rectangular grid in 25" x 144" panels. Treads can be cut quickly and inexpensively. The size of the panels allow for numerous combinations to maximize the yield of treads. (less waste = less cost)

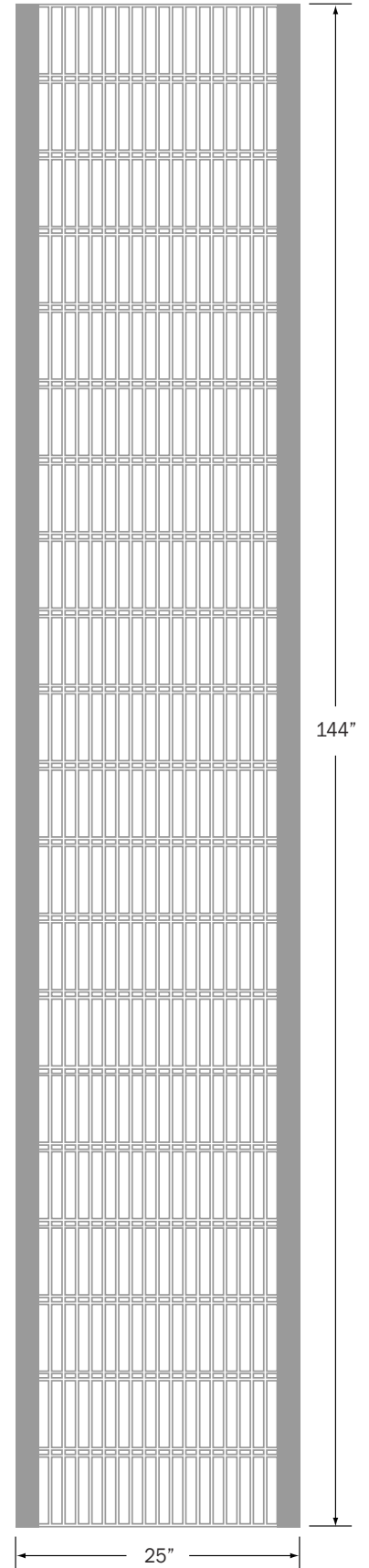
Custom fabricated sizes are available upon request. EPI also offer pultruded stair treads call for details.

Chemical Compatibility - a detailed table of chemical compatibility based on resin manufacturers' data is available. This table provides maximum allowable concentrations and temperatures.

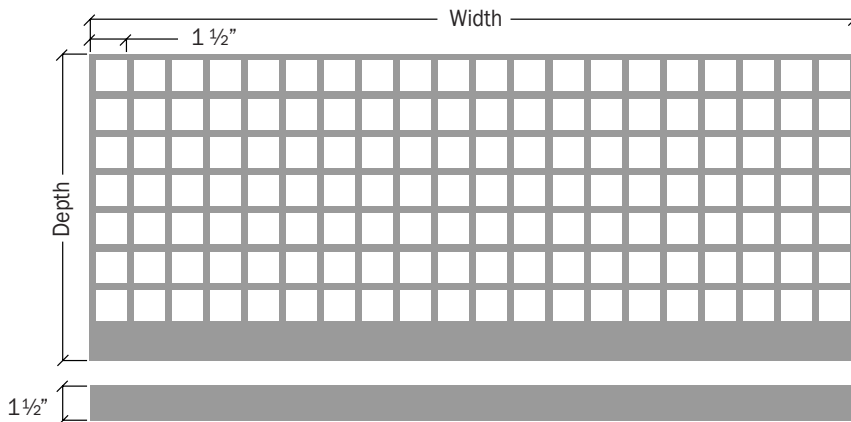


Fiberglass Stair Tread Covers are a cost effective way to improve stairway safety for your workers.

All treads are made with corrosion resistant fire retardant resin and have an anti-skid top surface





1 1/2" x 1 1/2" Square Mesh Stair Tread







NOTE: Depth/Width: to have both sides closed at multiples of (1 1/2" + 1/4")

MOLDED GRATING AVAILABILITY

DEPTH	GRID PATTERN	STANDARD PANEL SIZES	WEIGHT / SQ. FT.	OPEN AREA	STOCKED
1"	1" x 4"	10' x 3'	2.61 lbs	68%	
1 1/2"	1" x 6" 	4' x 12'	4.71 lbs	38%	
1"	1 1/2" x 1 1/2"	3' x 10' / 4' x 8' / 4' x 12'	3.08 lbs	69%	●
1 1/2"	1 1/2" x 1 1/2"	3' x 10' / 4' x 8' / 4' x 12' / 5' x 10'	3.94 lbs	68%	●
1 1/2"	3/4" x 3/4" 	4' x 12'	4.75 lbs	44%	
2"	2" x 2"	4' x 12'	4.51 lbs	71%	●

PULTRUDED GRATING AVAILABILITY

SERIES	DEPTH	LOAD BAR TYPE / SPACING	CROSS ROD SPACING	STANDARD PANEL SIZES	WEIGHT / SQ. FT.	OPEN AREA	STOCKED
I 10-40	1"	I / 1"	6"	3' x 20' / 4' x 20'	3.60 lbs	40%	●
I 10-50	1"	I / 1.2"	6"	3' x 20' / 4' x 20'	3.02 lbs	50%	
I 10-60	1"	I / 1.5"	6"	3' x 20' / 4' x 20'	2.33 lbs	60%	●
I 15-40 	1 1/2"	I / 1"	6"	3' x 20' / 4' x 20'	4.50 lbs	40%	
I 15-50	1 1/2"	I / 1.2"	6"	3' x 20' / 4' x 20'	3.72 lbs	50%	
I 15-60	1 1/2"	I / 1.5"	6"	3' x 20' / 4' x 20'	3.30 lbs	60%	●
T 10-18 	1"	T / 2"	6"	4' x 12'	2.39 lbs	18%	
T 10-33 	1"	T / 1.5"	6"	Made to Order	2.25 lbs	33%	
T 10-35	1"	T / 2.5"	6"	Made to Order	2.00 lbs	35%	
T 10-50	1"	T / 2"	6"	Made to Order	1.81 lbs	50%	
T 20-33 	2"	T / 1.5"	6"	3' x 20' / 4' x 20'	4.44 lbs	33%	
T 20-50	2"	T / 2"	6"	3' x 20' / 4' x 20'	3.43 lbs	50%	●
HD 10-40 	1"	HD-Solid / 1"	6"	Made to Order	5.84 lbs	40%	
HD 10-50	1"	HD-Solid / 1.2"	6"	Made to Order	4.94 lbs	50%	
HD 10-60	1"	HD-Solid / 1.5"	6"	Made to Order	4.05 lbs	60%	
HD 15-40 	1 1/2"	HD-Solid / 1"	6"	Made to Order	9.13 lbs	40%	
HD 15-50	1 1/2"	HD-Solid / 1.2"	6"	Made to Order	7.69 lbs	50%	
HD 15-60	1 1/2"	HD-Solid / 1.5"	6"	Made to Order	6.25 lbs	60%	
HD 20-40 	2"	HD-Solid / 1"	6"	Made to Order	11.81 lbs	40%	
HD 20-50	2"	HD-Solid / 1.2"	6"	Made to Order	9.92 lbs	50%	
HD 20-60	2"	HD-Solid / 1.5"	6"	Made to Order	8.03 lbs	60%	

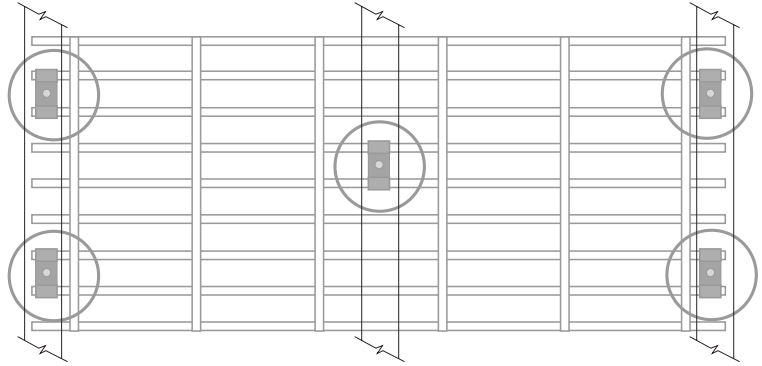
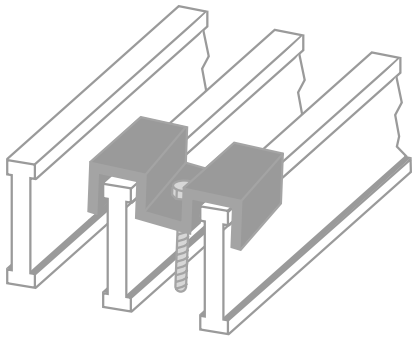
STAIR TREAD AVAILABILITY

DEPTH	GRID PATTERN	STANDARD PANEL SIZES	WEIGHT / SQ. FT.	OPEN AREA	STOCKED
1 1/2"	1" x 6"	25" x 12"	4.71 lbs	38%	●
1 1/2"	1 1/2" x 1 1/2"	12" x 12"	3.94 lbs	68%	●

Pultruded Stair Treads are also available and are made to order - Call for details

FRP GRATING FASTENERS

FASTENING METHODS
ALL GRATING MUST BE FASTENED IN PLACE



M CLIP



SADDLE CLIP



L CLIP



WASHER CLIP



C CLIP

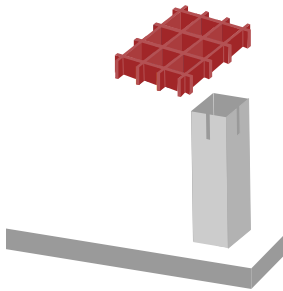


GRIP JAW

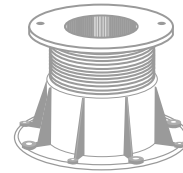


T CLIP

PEDESTALS

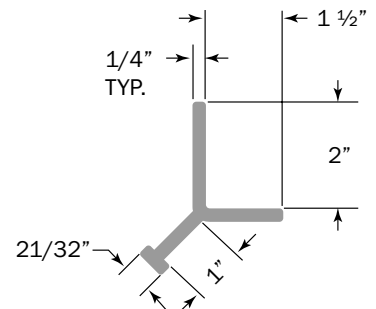
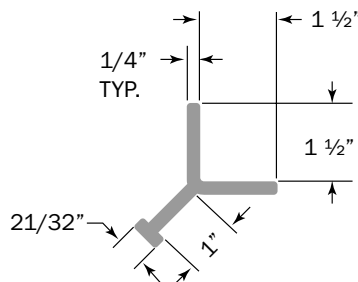
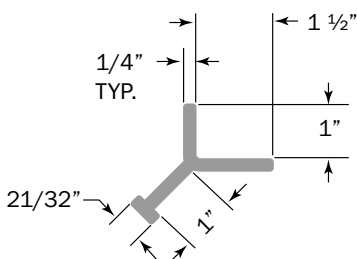
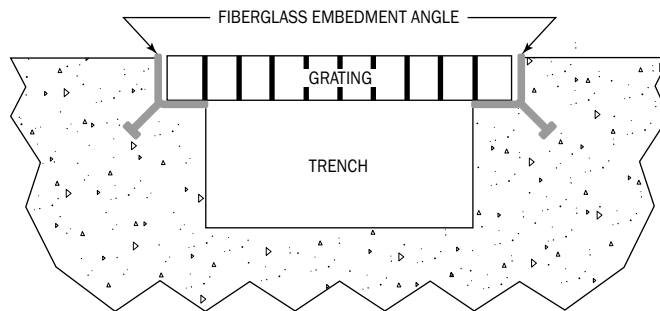


FIXED PEDESTAL



SCREWJACK PEDESTAL

EMBEDMENT ANGLE



FRP PRODUCTS

DEFI offers a wide variety of high strength, maintenance free products. Ask about our custom capabilities including design as well as manufacturing.

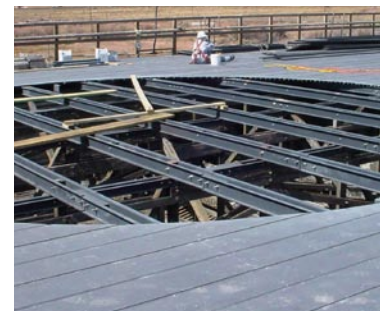
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