

Micro-Mesh® Decking



Fibergrate Composite Structures is the originator of molded fiberglass reinforced plastic (FRP) grating. Fibergrate continues to lead the industry in innovative products and the ability to provide customized solutions for numerous applications and industries. In our 40 year history, Fibergrate has provided many products to marine, recreational, and commercial customers. Now as our nation has become more knowledgeable about our marine environments, we have committed to producing products that will provide the best solution for our customer and the environment.

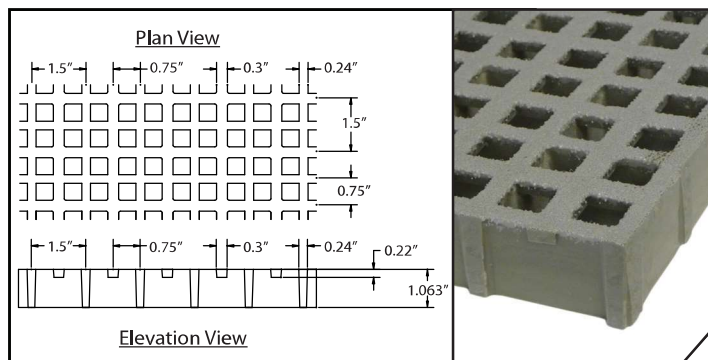
Seagrasses are widely recognized as one of the most productive and valuable habitats in the shallowmarine environment. Although the area of the seagrass loss associated with any individual dock is relatively small, cumulative impacts and fragmentation of seagrass beds may be significant along highly developed shorelines. With seagrass populations in decline in many areas, coastal resource managers are interested in products to reduce additional dock-associated impacts to an already stressed resource.

Fibergrate's Micro-Mesh® grating has an open area of 44.4% and exceeds guidelines set forth by the Army Corp of Engineers who require a minimum open area of 43%. The open area consideration is an important factor in protecting the seagrass as it allows light penetration through the dock. In addition, our square top mesh provides a maximum opening of 3/4" so it also meets the Americans with Disabilities Act (ADA) guidelines making it an excellent choice for public area applications. Offered in a 4' x 12' panel and depth options of 1" and 1-1/2", this bi-directional grating ensures a safe, a long lasting, easy to install and maintain solution.



Micro-Mesh® 1" Deep x 3/4" Sq Top Mesh

# of Bars/ Ft of Width	Load Bar Width	Open Area	Load Bar Centers	Approximate Weight
8	1/4"	44.4%	1.5"	2.9 psf



Details

- Meets Army Corps of Engineers Guidelines
- Storm Surge Friendly
- ADA Compliant
- Bare-Foot Friendly
- Part #260788 1" Depth
- Part #260793.2 1.5" Depth
- 4' x 12' Panel
- Light Gray



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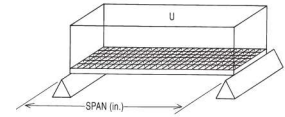


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Uniform Load Table - Deflection in Inches

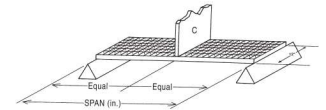
U Uniform Load - psf
 ΔU Uniform Load Deflection - in



Clear Span (in)	Depth	LOAD (psf)										Maximum Rec. Load (psf)	Ultimate Load (psf)
		50	65	100	150	200	300	500	1000	2000			
12	1"	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.04	0.08	0.16	1580	6770	
	1-1/2"	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.04	0.07	2060	10420	
18	1"	0.02	0.02	0.04	0.06	0.08	0.11	0.20	0.38	--	700	3170	
	1-1/2"	<0.01	<0.01	0.01	0.02	0.03	0.04	0.07	0.14	0.28	910	6940	
24	1"	0.06	0.08	0.12	0.19	0.25	0.37	--	--	--	390	1780	
	1-1/2"	0.02	0.03	0.04	0.06	0.06	0.12	0.21	0.42	--	510	4000	
30	1"	0.14	0.18	0.27	0.41	--	--	--	--	--	250	1140	
	1-1/2"	0.05	0.06	0.09	0.14	0.18	0.27	0.46	--	--	330	2560	
36	1"	0.31	0.40	--	--	--	--	--	--	--	170	790	
	1-1/2"	0.10	0.13	0.20	0.30	0.40	--	--	--	--	230	1770	
42	1"	0.49	--	--	--	--	--	--	--	--	120	580	
	1-1/2"	0.17	0.22	0.34	--	--	--	--	--	--	160	1300	
48	1-1/2"	0.28	0.37	--	--	--	--	--	--	--	120	1000	
54	1-1/2"	0.42	--	--	--	--	--	--	--	--	100	790	

Concentrated Line Load Table - Deflection in Inches

C Concentrated Line Load - psf of width
 ΔC Concentrated Line Load Deflection - in



Clear Span (in)	Depth	LOAD (LB/FT OF WIDTH)								Maximum Rec. Load (psf)	Ultimate Load (psf)
		50	100	200	300	500	1000	2000			
12	1"	<0.01	<0.01	0.03	0.04	0.06	0.13	--	790	3560	
	1-1/2"	<0.01	<0.01	0.01	0.02	0.03	0.05	0.11	1030	8000	
18	1"	0.02	0.04	0.08	0.12	0.20	0.41	--	520	2370	
	1-1/2"	0.01	0.02	0.03	0.05	0.08	0.15	0.30	880	5330	
24	1"	0.05	0.10	0.20	0.30	0.49	--	--	390	1780	
	1-1/2"	0.02	0.03	0.07	0.10	0.17	0.33	--	510	4000	
30	1"	0.09	0.18	0.35	--	--	--	--	310	1420	
	1-1/2"	0.03	0.06	0.12	0.18	0.29	--	--	410	3200	
36	1"	0.16	0.33	--	--	--	--	--	260	1180	
	1-1/2"	0.05	0.11	0.21	0.32	--	--	--	340	2660	
42	1"	0.23	0.45	--	--	--	--	--	220	1010	
	1-1/2"	0.08	0.16	0.32	0.47	--	--	--	290	2280	
46	1"	0.32	--	--	--	--	--	--	200	900	
48	1-1/2"	0.11	0.23	0.45	--	--	--	--	250	2000	
54	1-1/2"	0.15	0.30	--	--	--	--	--	230	1770	

- NOTES:
1. Functionality of grating is limited to MAXIMUM RECOMMENDED LOAD. The designer should not exceed this MAXIMUM RECOMMENDED LOAD at any given span.
 2. ULTIMATE CAPACITY represents a complete and total failure of the grating. Values are provided to illustrate the reserve strength of the grating at a given span and are NOT to be used for design. Functionality of grating is limited to MAX RECOMMENDED LOAD.
 3. Walking loads, typically 50-65 psf maximum are recommended for pedestrian traffic. Deflections for worker comfort are typically limited to the lesser of 3/8" or CLEAR SPAN divided by 125; for a firmer feel, limit deflection to the lesser of 1/4" or CLEAR SPAN divided by 200.
 4. The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperatures only. Allowable loads for impact or dynamic conditions should be a maximum of ONE-HALF the values shown. Long-term loads will result in added deflection due to creep in the material and will also require higher safety factors to ensure acceptable performance. For applications at elevated temperatures, consult factory. The designer is further referenced to ASCE Structural Plastics Design Manual.
 5. All gratings were tested in accordance with the proposed standard of the Fiberglass Grating Manufacturers Council of the American Composites Manufacturers Association (ACMA).

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