

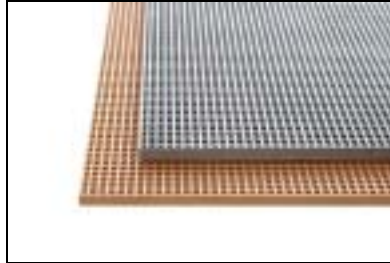


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## **GLOBALGRID Mini-mesh Grating For Marina Industry**

GLOBALGRID Mini-mesh grating is designed specially for application in the commercial and private marina industry for ADA compliance and light transmission. With the ADA compliant 1/2" open area for both the cross bar and bearing bar, GLOBALGRID mini-mesh grating allows light to pass down (with sufficient natural light for fishery and vegetation below the Dock). The mesh structure is also ideal for managing ocean waves or hurricane winds (to pass up and through). It minimizes vibration from rolling cart or wheelchair traffic, and prevents small tools and other objects (e.g., key chains) from falling through the grating.

The "15mm ball test" requirement, common in Europe and in offshore applications, is easily met by GLOBALGRID mini-mesh grating. The combination of flexibility in cutting, light weight & high strength, and ease of installation significantly reduces the project cost because of the reduced labor content and the simplicity of tooling during the installation. Special clip assemblies (Type W) are provided for attaching the GLOBALGRID mini-mesh grating to the substructure of any type. The GLOBALGRID mini-mesh grating is the ideal replacement for the conventional decking materials.

### **A) Key Characteristics of GLOBALGRID Mini-mesh Grating:**

#### **■ Full ADA Compliance**

The open 1/2" mini-mesh structure enables GLOBALGRID mini-mesh grating to be fully compliant with ADA (American with Disability Act). It is the right choice to minimize vibration from rolling cart or wheelchair traffic, and prevents small tools and other objects from falling through the grating.

#### **■ Light Transmission**

The mini-mesh open area and broader bottom structure makes GLOBALGRID mini-mesh grating with maximum light transmission (> 65% light passage), allowing sufficient natural light to pass down for the fishery and vegetation below the Dock.

#### **■ Effective Management of Ocean Waves and Hurricane Winds**

The strong and durable GLOBALGRID mini-mesh grating allows ocean waves to pass up and through. The same structure also allows strong winds to pass through the structure, significantly reducing the wind pressure on the structure.

### ■ Permanent Resistance to Slipping and Sliding

GLOBALGRID mini-mesh grating features a long-lasting slip-resistant grit surface and optimum concave surface, providing excellent slip and slid resistance in wet environments. It also offers a comfortable walking surface even with bare feet for safety.

### ■ High Strength and Light Weight

GLOBALGRID mini-mesh grating is designed to achieve high strength with the use of continuous fiberglass strands and high quality resins. With proper installation, GLOBALGRID mini-mesh grating meets specified load requirements for steel and are more impact resistant than metals (and concretes).

The unit weight for GLOBALGRID mini-mesh grating: 3.53lbs/sq.ft. for 1-1/5"mini-mesh grating, and 4.46lbs/sq.ft. for 1-1/2"mini-mesh grating. The lightweight allows significantly less freight charge and simpler and cheaper installation where a one-man or two-man crew can perform many small installations in a matter of hours, presenting a more cost effective alternative for marina decking.

### ■ Corrosion Resistance

The use of premium grade resin system provides excellent corrosion resistance with over a wide PH range – both acidic and caustic. GLOBALGRID mini-mesh gratings have proven their value under the toughest corrosive conditions.

GLOBALGRID mini-mesh grating is moisture resistant (never "waterlogged"), and it has excellent resistance to the penetration of oils and gasoline (likely present).

### ■ Utility Access

GLOBALGRID mini-mesh grating puts an end to utility access problems forever. These lightweight panels can be easily lifted to allow for maintenance of all the utilities (e.g., lines, wires, pipes) under the decking floor.

### ■ Ergonomic and Anti-Fatigue

GLOBALGRID mini-mesh grating has a slight resiliency that makes them comfortable to stand on for long periods. This gives a fatigue-reducing property that eases strain on the feet, legs, and lower backs of people walking or standing on the deck.

### ■ Easy to Fabricate and Install

GLOBALGRID mini-mesh grating is easily fabricated with hand tools (e.g., cut with a conventional circular saw), and can be installed without welding. It is easy to cut into virtually any size, or to fit around piles and other obstructions.

The special W clip assembly is provided for decking attachment to the substructure. The installation of GLOBALGRID mini-mesh may be easily handled by one or two persons, due to its lightweight and its simplicity during installation.

### ■ Appearance (Uniform and Attractive)

The grit surface provides a uniform and attractive appearance. GLOBALGRID mini-mesh grating offers many beautiful colors to meet your project needs (e.g., light gray, desert tan, green or others).

■ **Maintenance Free**

Painting or coating is never needed.

■ **Fire Retardant**

Flame Spread Rate: Class 1, 25 or less.

■ **Long Service Life**

Over 30 years service life.

■ **Economical**

The lowest installation cost; virtually no maintenance cost.

**B) Standard GLOBALGRID Mini-mesh Grating:**

Panel Thickness	Mesh	Open Mesh	Panel Size	Wt./Sq. Ft. (Lbs)	Panel Weight (Lbs)
1-1/5" (30mm)	3/4"x3/4"	1/2"x1/2"	3.28'x13.12' (1mx4m)	3.53	152
1-1/5" (30mm)	3/4"x3/4"	1/2"x1/2"	4'x12'	3.53	169
1-1/2"	3/4"x3/4"	1/2"x1/2"	3.28'x13.12' (1mx4m)	4.46	192
1-1/2"	3/4"x3/4"	1/2"x1/2"	4'x12'	4.46	214

Notes:

The standard color: light gray and desert tan.

Custom color and size can be available upon request.

Surface type: Concave top and grit top.

### C) W Clip for GLOBALGRID Mini-mesh Grating Installation:



The type W clip is used to secure GLOBALGRID mini-mesh grating to the substructure. It is made of stainless steel. One set of clip includes W clip and self screw bolt, and it is easy installed with a hand electric drill and screwdriver.

The special design for the spacer component of W clips avoids a tripping hazard. The raised design for the spacer from the outside to the center, which sunk in the center, ensures that the head of the self screw bolt is lower than the level of collar flange of the spacer. The outside diameter of the spacer is 1-1/4" (30mm). The standard length for the self screw bolt is 3-1/8" (80mm), and the diameter is 1/4" (6.3mm). Self screw bolts with other lengths can be available upon request.

## D) GLOBALGRID Mini-Mesh Grating Load & Deflection

### **Concentrated Load: 12" Wide Strip**

#### 1-1/5" Thick Mini-mesh Grating

SPAN	LOAD(Lb/Ft.)						
(in)	100	250	500	750	1000	1500	2000
12	--	0.014	0.026	0.038	0.051	0.077	0.102
18	0.017	0.043	0.085	0.128	0.170	0.255	0.340
24	0.043	0.149	0.196	0.293	0.391	--	--
36	0.128	0.319	--	--	--	--	--
48	0.264	--	--	--	--	--	--

#### 1-1/2" Thick Mini-mesh Grating

SPAN	LOAD(Lb/Ft.)						
(in)	100	250	500	750	1000	1500	2000
12	--	0.012	0.024	0.036	0.047	0.071	0.094
18	0.013	0.033	0.065	0.094	0.121	0.179	0.239
24	0.027	0.064	0.128	0.191	0.258	0.376	--
36	0.085	0.213	0.421	--	--	--	--
48	0.196	--	--	--	--	--	--

**Uniformed Load: 12" Wide Strip**

**1-1/5" Thick Mini-mesh Grating**

SPAN	LOAD(Lbs/Ft. <sup>2</sup> )								
	(in)	25	50	75	100	150	200	250	300
12	--	--	--	--	--	--	--	--	--
18	--	--	0.013	0.017	0.026	0.034	0.043	0.051	
24	0.013	0.026	0.038	0.051	0.077	0.094	0.128	0.145	
36	0.060	0.119	0.179	0.238	0.357	0.476	--	--	
48	0.162	0.315	0.476	--	--	--	--	--	

**1-1/2" Thick Mini-mesh Grating**

SPAN	LOAD(Lbs/Ft. <sup>2</sup> )								
	(in)	25	50	75	100	150	200	250	300
12	--	--	--	--	--	--	--	--	--
18	--	--	--	--	0.017	0.026	0.031	0.038	
24	--	0.019	0.026	0.036	0.053	0.064	0.080	0.095	
36	0.043	0.087	0.128	0.172	0.253	0.342	--	--	
48	0.121	0.241	0.362	--	--	--	--	--	

**Notes:**

- 1) Clear span is 2.0" (50mm) less than the width of mini-mesh grating.
- 2) The Load & Deflection data provided here is for general information only, because actual environment and operational conditions varies. FRP Resource, LLC cannot guarantee that actual performance will correspond to the Load & Deflection tables provided here.

## E) GLOBALGRID Mini-mesh Grating Applications



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