GEF Incorporated

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Phenolic Molded Fiberglass Grating

USCG APPROVAL #164.040/0012/0*

Innovative Solutions in Fiberglass
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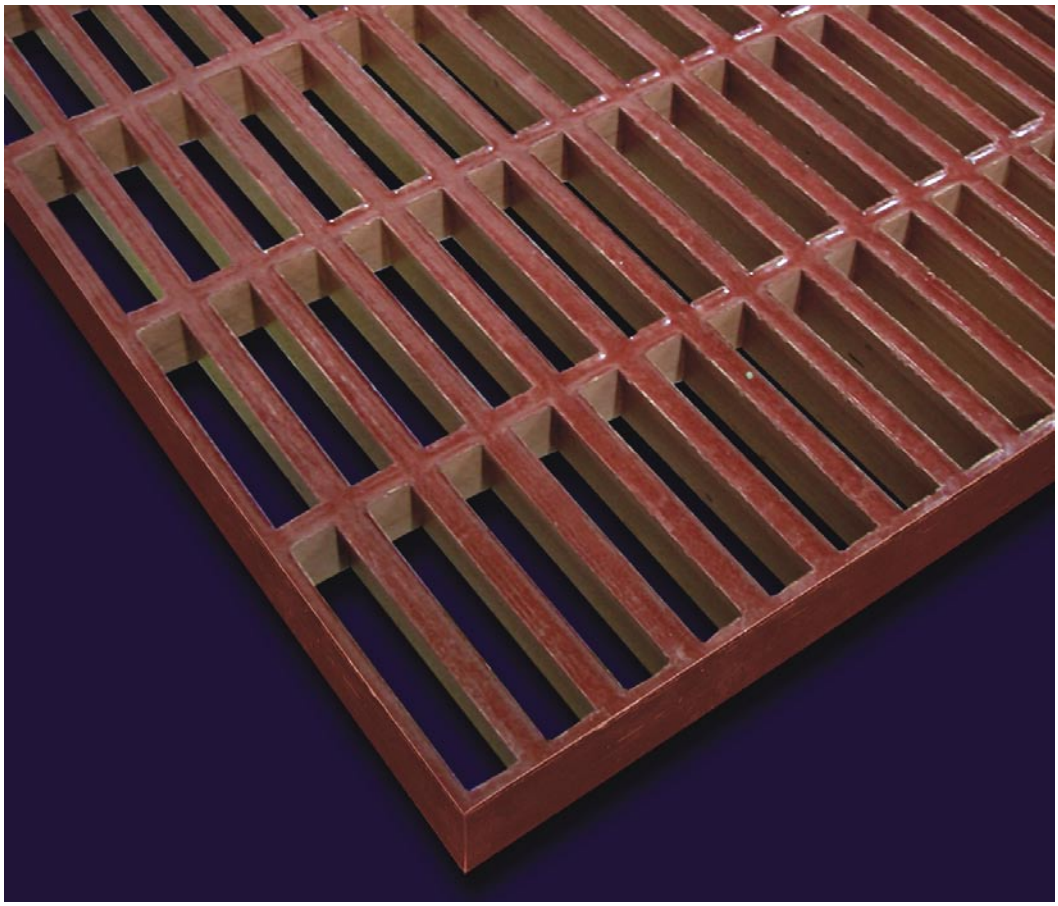

- **Resistant to High Temperatures**
- **Low Smoke and Toxic Fume Emissions**
- **Lightweight**
- **Easy to Cut/Install**
- **Low in Maintenance**
- **Low Thermal and Electrical Conductivity**

Phenolic molded fiberglass grating is a dramatic innovation for markets where fire safety is a major concern; offering superior resistance to high temperatures with low smoke and toxic fume emissions. The nonflammable nature of phenolics enable phenolic molded grating to withstand higher temperatures than traditional FRP products for extended periods of time without major structural damage. Combined with low thermal conductivity, phenolic molded grating provides fire protection not available with alternate materials.

Typical applications include:

- Offshore production platforms
- Offshore drilling (MODU's)
- Docks/jetties/load-out areas
- Shipboard applications
- Tunnels/mass transit
- Aircraft
- Mining
- Public buildings
- Industrial/processing plants
- Refineries

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Features

Phenolic molded fiberglass grating panels are molded in one piece and feature a concave non-slip walking surface.

Phenolic molded fiberglass grating is significantly lighter in weight than metallic gratings and the high resin content (65%) provides long, virtually maintenance-free performance. A higher safety factor is achieved by adding a higher glass content to the bottom of the grating for greater tensile strength.

Materials of Construction

Phenolic molded fiberglass grating is composed of fiberglass rovings combined with a phenolic resin system and will include a coating system.

Standard phenolic molded grating has a concave profile on the upper surface for skid resistance. Grit tops are available upon request.

Shapes, Sizes and Availability

Phenolic molded grating is available in a 1-1/2" x 6" rectangular mesh in 4' x 12' size panels. The standard color for phenolic molded grating is a dark reddish-brown hue.

Technical Data

Fire Safety

Compared to typical polyester, vinyl ester and epoxy FRP products, phenolic molded grating is a major improvement in reduced smoke density, reduced smoke toxicity and structural fire integrity when exposed to fire. The panel is USCG approved and has an ASTM E-84 Flame Spread Index of 10 and a Smoke Index of 20.*

Phenolic molded grating complies with Annex 1, Part 2, 2.6.1 and 2.6.2 (smoke and toxicity testing) FTP Code (International Code for Application of Fire Test Procedures) issued by the International Maritime Organization. Further information on smoke and toxicity tests is available from Strongwell upon request.

**Note: U.S. Coast Guard Approval #164.040/0012/0 as listed under FRP Grating.*

1-1/2" Thick x 1-1/2" x 6" Rectangular Mesh

1-1/2" bearing bars: Values per foot of width Open Space = 58% Approx. Weight = 3.8 lbs/sq.ft.

SPAN		LOAD 50	100	150	200	300	400	600	800	1000	1200	MAXIMUM RECOMMENDED (lbs.)	ULTIMATE CAPACITY (lbs.)
12	Δu	0.004	0.007	0.010	0.014	0.018	0.022	0.028	0.031	0.033	0.036	2588	12938
	Δc	0.006	0.010	0.014	0.018	0.026	0.031	0.039	0.041	0.044	0.050	1938	9688
18	Δu	0.012	0.023	0.035	0.046	0.068	0.077	0.093	0.100	0.114	0.133	1713	8563
	Δc	0.014	0.026	0.038	0.050	0.072	0.081	0.099	0.111	0.119	0.142	1288	6438
24	Δu	0.034	0.069	0.101	0.132	0.198	0.232					969	4844
	Δc	0.026	0.050	0.076	0.100	0.150	0.178					969	4844
30	Δu	0.074	0.150	0.226								614	3069
	Δc	0.048	0.096	0.144								769	3844
36	Δu	0.151	0.306	0.457								423	2113
	Δc	0.079	0.159	0.239								645	3225
42	Δu	0.278										310	1550
	Δc	0.124										548	2738
48	Δu	0.455										210	1050
	Δc	0.180										423	2113

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