

NEW Resin Offerings

For Fibergrate® High Load Capacity Molded Grating



Fibergrate Composite Structures Inc. Announces the Expansion of Resin Availability for the High Load Capacity Molded Grating Product Line –

The extended line now includes the addition of Fibergrate's high load molded grating panels available in the FGI-AM®, Corvex® and Vi-Corr® resin systems. This provides the opportunity to encompass new markets while also expanding opportunities in current markets.



FGI-AM®

Used for food and beverage applications, the FGI-AM food-grade isophthalic polyester resin system inhibits the growth of bacteria on the surface of the composite due to its antimicrobial properties. With the newly available resin for high load molded grating, new opportunities are within reach.

Corvex®

The availability of Fibergrate's improved isophthalic polyester Corvex resin system for high load capacity molded grating now provides a more cost-effective solution for applications found in less highly corrosive environments. This new offering, while still providing a corrosion resistant, low maintenance product, gives an alternative option to vinyl ester resin that can save on cost.

Vi-Corr®

Fibergrate's vinyl ester Vi-Corr resin system, that offers outstanding resistance to a wide range of highly corrosive situations from caustic to acidic, will now be the name used for the original VF high load molded grating. It has been renamed to now match with Fibergrate's other molded grating branded resins.

The sizing and surface options: 1-1/2" or 2" deep gratings, in 6' x 4' panels, with either a smooth or Aluminum Oxide (A/O) grit surface, and with 1" x 2" rectangular mesh, remain unchanged. However, the color options now match with the availability of the standard color offerings for the FGI-AM, Corvex and Vi-Corr resin systems.



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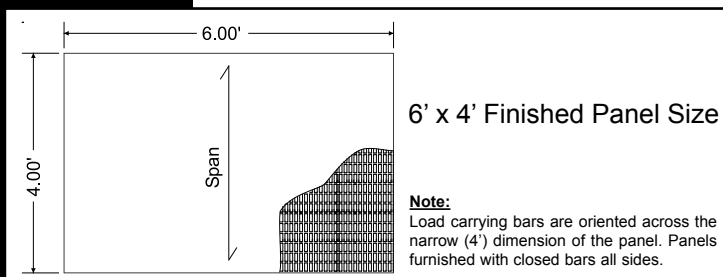
For Fibergrate® High Load Capacity Molded Grating



Grating Details

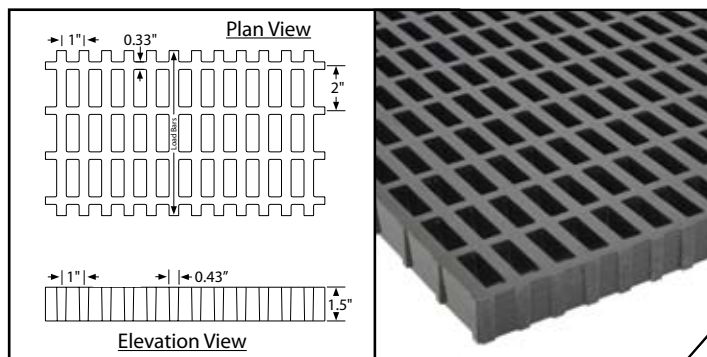
Molded High Load Capacity (HLC) grating is yet another product in the arsenal of engineered fiberglass reinforced plastic (FRP) solutions by Fibergrate. While capitalizing on most of the traditional benefits of molded grating products - high strength, corrosion resistance, fire retardancy, non conductivity and low maintenance - this specially manufactured molded FRP product has been engineered to carry forklift loads that traditional molded FRP grating products are unable to support.

With a 48% open surface area, Fibergrate molded HLC grating is available in a 6' x 4' panel with depths of 1-1/2" and 2" with a smooth or A/O grit surface. Fibergrate molded HLC grating merits an ASTM E-84 flame spread rating of 25 or less.



HLC 1-1/2" Deep x 1" x 2" Rectangular Mesh

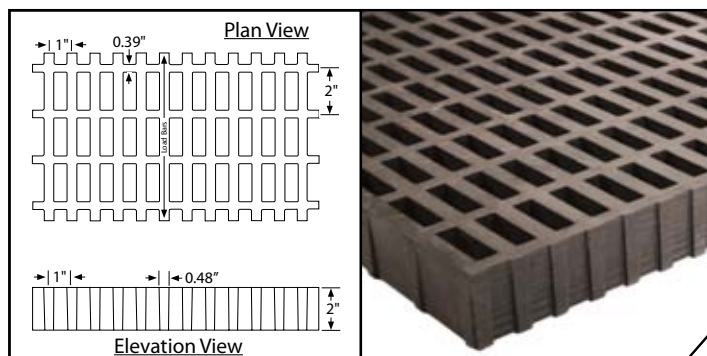
# of Bars/ Ft of Width	Load Bar Width	Open Area	Load Bar Centers	Approximate Weight
12	0.43"	48%	1"	6.2 psf



Section Properties per Ft of Width: $A = 7.45 \text{ IN}^2$ $I = 1.39 \text{ IN}^4$ $S = 1.80 \text{ IN}^3$

HLC 2" Deep x 1" x 2" Rectangular Mesh

# of Bars/ Ft of Width	Load Bar Width	Open Area	Load Bar Centers	Approximate Weight
12	0.48"	48%	1"	8.4 psf



Section Properties per Ft of Width: $A = 10.26 \text{ IN}^2$ $I = 3.4 \text{ IN}^4$ $S = 3.27 \text{ IN}^3$

Allowable Spans for Vehicular Loads		Wheel Load (lb) - 1/2 Axle Load +30% Impact	Load Distribution		Allowable Span ^{2,3}	
			Parallel To Axle ¹	Perpendicular To Axle	1-1/2" Deep HLC Molded Grating	2" Deep HLC Molded Grating
	AASHTO Standard Truck ⁴ / 32,000 lb Axle Load Dual Wheels(*formerly AASHTO H-20)	20,800	20" + 4"	8"	1' - 2"	1' - 5"
	Automobile Traffic / 5,000 lb Vehicle 1,500 lb Load / 55% Drive Axle Load	2,200	8" + 4"	8"	2' - 2"	2' - 8"
	5 ton Capacity Forklift / 14,400 lb Vehicle 24,400 lb Total Load / 85% Drive Axle Load	13,480	11" + 4"	11"	1' - 1"	1' - 5"
	3 Ton Capacity Forklift / 9,800 lb Vehicle 15,800 lb Total Load / 85% Drive Axle Load	8,730	7" + 4"	7"	1' - 0"	1' - 4"
	1 Ton Capacity Forklift / 4,200 lb Vehicle 6,200 lb Total Load / 85% Drive Axle Load	3,425	4" + 4"	4"	1' - 7"	2' - 1"

- Notes:
- Load is carried by the grating load bars immediate under wheel + four additional load bars adjacent to wheel.
 - Allowable Span is based on a 0.25" maximum deflection and a Factor of Safety of 2.5. The other criteria may be required by certain construction codes. Check code requirements to determine design criteria.
 - ALLOWABLE SPAN IS STRONGLY DEPENDENT ON WHEEL WIDTH AND VEHICLE WEIGHT/LOAD CAPACITY.** If your application varies from the values given on this table, contact Fibergrate Engineering for application assistance.
 - Load based on the AASHTO Standard Truck Load as defined in AASHTO LRFD Bridge Design Specifications, 2nd Ed. This does not imply that the allowable span meets the deflection requirements of this specification.



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