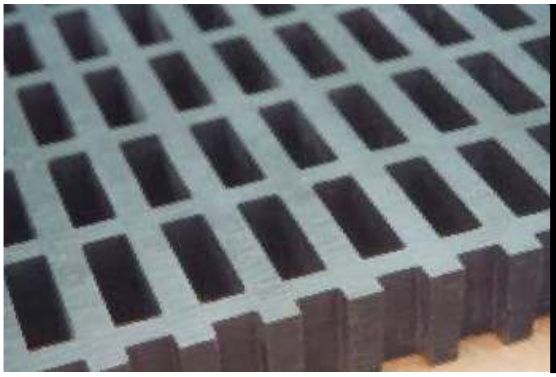

High Load Capacity Grating

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

With a 48% open surface area, Captrad's moulded HLC grating is available in a 6' x 4' panel with depths of 1-1/2" (38mm) and 2" (50mm) and comes standard in a fire-retardant vinyl ester resin system, dark gray in colour, with a smooth surface. Captrad's moulded HLC grating merits an ASTM E-84 flame spread rating of 25 or less and a Class 1 Fire Rating.

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	2,220	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:

1. Load is carried by the grating load bars immediate under wheel + four additional load bars adjacent to wheel.
2. Allowable Span is based on a 0.25" maximum deflection and a Factor of Safety of 3.0. The other criteria may be required by certain construction codes. Check code requirements to determine design criteria.
3. **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 Captrad Ltd for application assistance.
4. 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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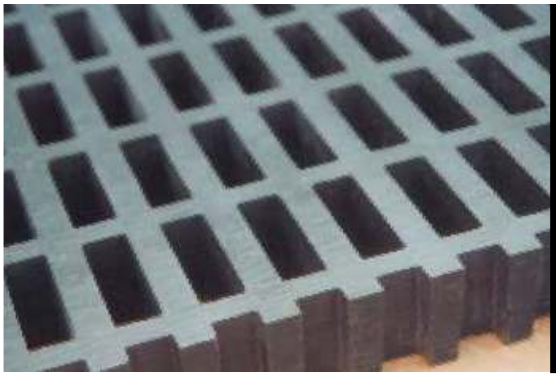
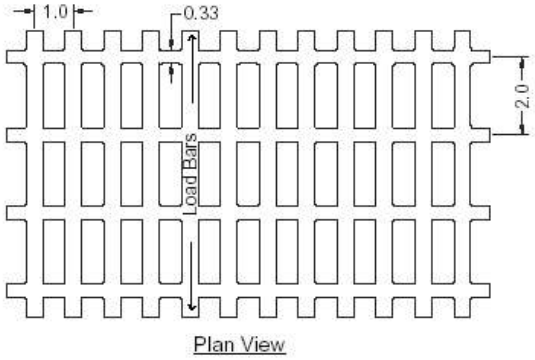
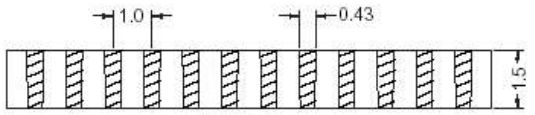


High Load Capacity Grating

1-1/2" Molded HLC Grating



Plan View

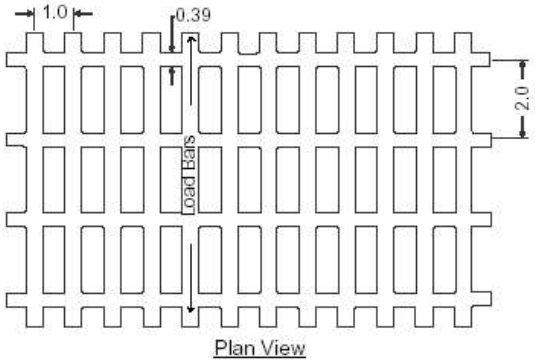


Elevation

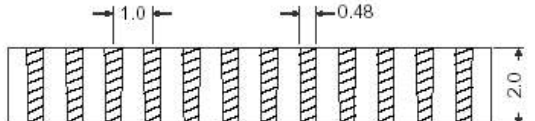
1 1/2" Deep x 1" x 2" Rectangular Mesh
# of Bars/Foot of Width = 12
Load Bar Width = 0.43" Load Bar Centers = 1"
Open Area = 48% Approx. Weight = 6.2 psf
Panel Size 6' x 4' (span)

Engineering Properties Per Ft of Width
A= 7.45 in^2 I = 1.39 in^4 S = 1.80 in^3
Average EI = 2,400,000 lb - in^2

2" Molded HLC Grating



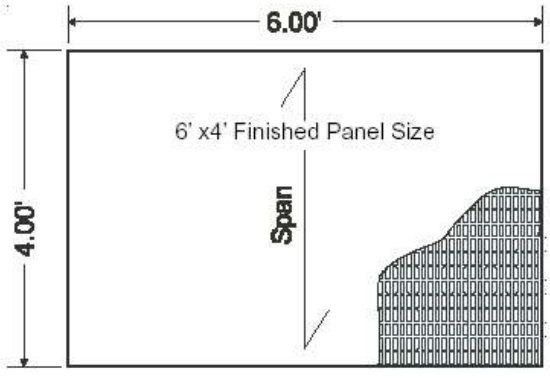
Plan View



Elevation

2" Deep x 1" x 2" Rectangular Mesh
# of Bars/Foot of Width = 12
Load Bar Width = 0.48" Load Bar Centers = 1"
Open Area = 48% Approx. Weight = 8.4 psf
Panel Size 6' x 4' (span)

Engineering Properties Per Ft of Width
A= 10.26 in^2 I = 3.40 in^4 S = 3.27 in^3
Average EI = 6,000,000 lb - in^2



Note:
Load carrying bars are oriented across the narrow (4') dimension of the panel. Panels furnished with closed bars all sides.

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