

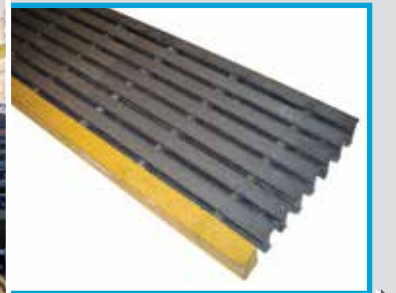
# GRP Pultruded Grating

SI Units



*Building the World to Last®*

HIGH PERFORMANCE COMPOSITE SOLUTIONS



# Pultruded Products

## Introduction

Combining corrosion resistance, long life, and a low-maintenance design, Safe-T-Span® pultruded grating is superior to conventional metallic gratings. This advanced grating is manufactured with a recessed tie bar configuration and is lightweight and easy to fabricate. Savings on labour and equipment often make the total installed cost of Safe-T-Span grating comparable to that of steel. This advanced pultruded grating is designed for use in a wide range of industrial applications that require strength and corrosion resistance. Manufactured with a high percentage of glass within the laminate, pultruded grating provides durability, extremely high unidirectional strength and stiffness. Due to its exceptional stiffness, it can be used with confidence where wide support spans are required. For most applications where it is used to replace steel grating, Safe-T-Span industrial grating rarely requires additional support. Combining its low cost of installation with low maintenance and long life, Safe-T-Span offers a life cycle cost that is significantly lower than that of its metal counterpart.

The Safe-T-Span line includes High Load Capacity (HL) grating for up to H20 vehicular loads, industrial grating for standard industrial loads, and pedestrian grating for foot traffic. Specially designed gratings for barefoot traffic in the recreation industry are available in the Aqua Grate® line, and several of the pultruded series available meet ADA guidelines. Another pultruded product, Dynadeck® interlocking flooring, is available to provide a solid-top flooring.

For additional niche products, please explore the Fibergrate website under Pultruded Products for custom pultruded market gratings.

## Safe-T-Span® Grating Resin Systems

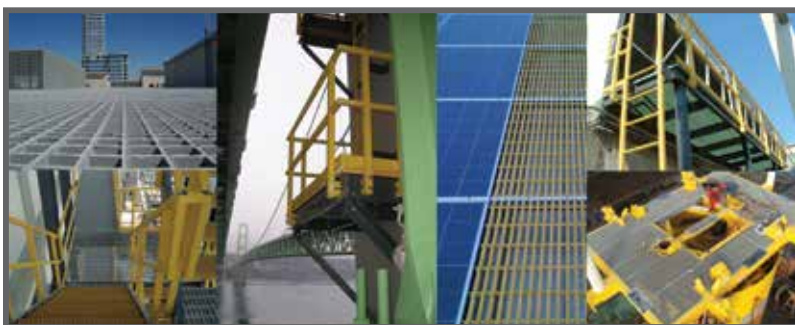
**ISOFR:** Isophthalic polyester resin formulation with a low flame spread rating of 25 or less is crafted for applications with moderate exposure to corrosive elements.

**VEFR:** Vinyl ester resin system with a flame spread of 25 or less provides reliable resistance to both acidic and alkaline environments.

**PHENOLIC:** A USCG-approved flame-resistant phenolic resin with an extremely low flame spread of 10 and a smoke index of 400 (unpainted); flame spread of 15 and a smoke index of 450 (painted, UV coating) - primarily designed for the offshore industry. (Coast Guard approved for Level 2 & 3 performance criteria). All Safe-T-Span phenolic grating requiring ASTM F3059-18 approval undergoes independent inspection at the production stage to ensure adherence to quality control standards.

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## Fibergrate Markets



- Architectural
- Bridge & Highway
- Chemical
- Commercial
- Food & Beverage
- Manufacturing
- Metals & Mining
- Microelectronics
- Oil & Gas
- Pharmaceutical
- Power
- Pulp & Paper
- Recreation
- Telecommunications
- Transportation
- Water & Wastewater

# Fibergrate® Benefits

## Why use GRP?



**Corrosion-Resistant:** Fibergrate® pultruded GRP products are recognized for their capability to offer corrosion-resistance in the most challenging chemical environments.



**Slip-Resistant:** The integrally applied grit surfaces of Fibergrate pultruded products have unrivalled slip resistance for enhanced worker safety.



**Low-Maintenance:** The corrosion-resistant properties of GRP grating and other products reduce or eliminate the need for shot blasting, scraping, and painting. Products are also easily cleaned with a high-pressure washer.



**Fire-Retardant:** Most Fibergrate products are engineered to have a flame spread rating of 25 or less, as tested in accordance with ASTM E-84, and meet the self-extinguishing requirements of ASTM D-635.



**High Strength to Weight Ratio:** Less than one-half the weight of steel grating, allowing easy removal for access below floor level and installation with no heavy equipment and fewer personnel.



**Electrically & Thermally Non Conductive:** GRP is electrically non-conductive for safety and has low thermal conductivity, resulting in a more comfortable product when physical contact occurs.



**Low Installation Cost:** Due to ease of fabrication and lightweight nature, GRP pultruded grating eliminates the need for heavy lifting equipment.



**Long Service Life:** GRP products provide outstanding durability and corrosion resistance in demanding applications, therefore offering improved product life over traditional materials.



**UV Protection:** UV inhibitors in the resin matrix, a synthetic surfacing veil, and grit top surface provide optimum protection from the structural effects of UV weathering. *(Phenolic resin grating does not have the UV inhibitor or veil and therefore must be coated for UV protection.)*

### Made from NSF® Standard 61-Certified Components:

Fibergrate is now able to offer Safe-T-Span® pultruded gratings assembled from NSF Standard 61-Certified GRP structural shapes. These pultruded gratings complement the current line of NSF Standard 61-Certified Fibergrate® moulded gratings, Dynaform® GRP structural shapes, and Dynarail® GRP guardrail, handrail, and ladder systems. NSF Standard 61-Certified moulded gratings are available in all Fibergrate® moulded grating mesh patterns and thicknesses, except Ecograte® and 4 x 12 Micro-Mesh® panels.



### Heavy Metal Safe:




The EPA, HSE, and other regulatory agencies created to protect our lives and our natural resources have increased legislation to control heavy metals such as lead, chrome, cadmium, and other metals in all products where exposure is a health threat. Fibergrate Composite Structures Inc. supports this strengthened legislation and has, for more than 20 years, voluntarily tested for heavy metals in our products and minimized or eliminated heavy metals from our products.

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# Grating Selection and Accessories

## Safe-T-Span® Pultruded Industrial Series Grating

152mm Tie Bar Spacing Standard											
Series	Panel Depth (mm)	Load Bar Spacing (mm)	Stocked Sizes		Load Bars/m	Wt/m <sup>2</sup> (kg)	Open Area	Resin/Colour			
			Width (mm)	Length (m)				ISOFR	VEFR	PHENO-LIC*	
I6010	25	38	914, 1219	2.4, 3.0, 3.7, 6.1, 7.3	24	13.3	60%	Yellow	Dk Grey	—	
I5010	25	30	914, 1219	2.4, 3.0, 3.7, 6.1, 7.3	33	15.9	50%	Yellow	Dk Grey	—	
 I4010	25	25	914, 1219	2.4, 3.0, 3.7, 6.1, 7.3	39	18.4	40%	Yellow	Dk Grey	—	
I6015	38	38	914, 1219	2.4, 3.0, 3.7, 6.1, 7.3	8	15.4	60%	Yellow	Dk Grey	Brown*	
I5015	38	30	914, 1219	2.4, 3.0, 3.7, 6.1, 7.3	26	18.7	50%	Yellow	Dk Grey	—	
 I4015	38	25	914, 1219	2.4, 3.0, 3.7, 6.1, 7.3	39	22.5	40%	Yellow	Dk Grey	Brown*	
T5020	51	51	914, 1219	2.4, 3.0, 3.7, 6.1, 7.3	20	10.3	50%	Yellow	Dk Grey	—	
 T3320	51	38	914, 1219	2.4, 3.0, 3.7, 6.1, 7.3	26	18.0	33%	Yellow	Dk Grey	—	

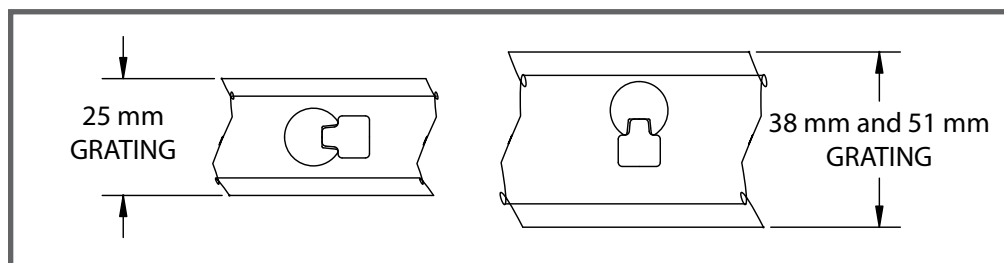
\*Phenolic Grating also available with UV coating - Awning Red colour

## Safe-T-Span® & Aqua Grate® Pultruded Pedestrian Series Grating

152mm Tie Bar Spacing Standard											
Series	Panel Depth (mm)	Load Bar Spacing (mm)	Stocked Sizes		Load Bars/m	Wt/m <sup>2</sup> (kg)	Open Area	Resin/Colour			
			Width (mm)	Length (m)				ISOFR	VEFR	PHENO-LIC*	
T3810	25	61	914, 1219	2.4, 3.0, 3.7, 6.1, 7.3	16	9.3	38%	Dk Grey	Dk Grey	—	
T2510 	25	51	914, 1219	2.4, 3.0, 3.7, 6.1, 7.3	20	12.3	25%	Dk Grey	Dk Grey	—	
T1210 	25	43	914, 1219	2.4, 3.0, 3.7, 6.1, 7.3	23	13.4	12%	Dk Grey*	Dk Grey*	—	
T3815	38	61	914, 1219	2.4, 3.0, 3.7, 6.1, 7.3	16	13.2	38%	Dk Grey	Dk Grey	—	
T2515 	38	51	914, 1219	2.4, 3.0, 3.7, 6.1, 7.3	20	13.8	25%	Dk Grey	Dk Grey	—	
T1215 	38	43	914, 1219	2.4, 3.0, 3.7, 6.1, 7.3	23	15.0	12%	Dk Grey*	Dk Grey*	—	

(127mm widths and 203mm, 305mm and 609mm lengths are available with extended lead times.) For load/deflection information on pultruded grating, see tables in this brochure. \*Top surface of grating is light grey in colour; bottom of grating is dark grey.

## Tie Bar Representation



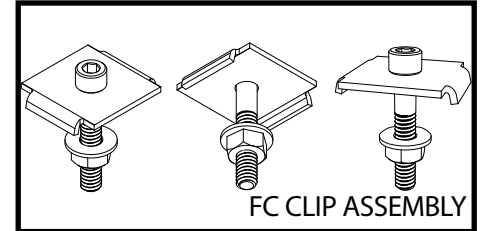


# Grating Selection & Accessories

## Clip Assemblies

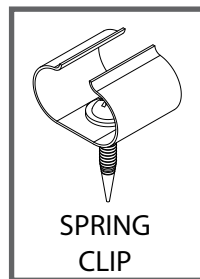
Fibergrate's newly designed FC Hold Down Clip Assembly offers an easy and more cost-effective solution for installing pultruded grating. Type FC Hold Down Clips secure grating below the walking surface.

*(FC-1 for I4010, I40125 & 4015 grating • FC-2 for I5010 & I5015 grating • FC-3 for I6010, I60125, I6015 & T3320 grating • FC-4 for T1210 and T1215 grating • FC-5 for T2510, T2515 & T5020 grating plus WT1810 & WT1815 specialty grating • FC-6 for T3810 & T3815 grating • FC-7 for WT3510 & WT3515 specialty grating)*

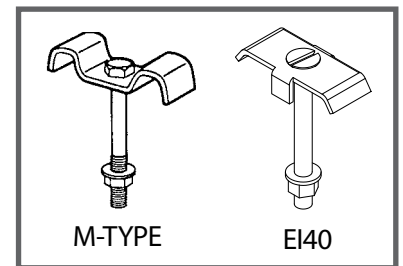


*Fibergrate's Type RT and RI Hold Down Clip Assemblies of Type 316 stainless steel are still available for special order.*

The T12 Spring Clip is designed for specialty applications where grating needs to be removed without removing the hardware. The grating is held securely in place below the surface but can be released with a firm upward force. (For the T12 Pultruded Grating Series)



Fibergrate also offers Type M, W, and E Hold Down Clip Assemblies for many types of pultruded grating. *(EI40 for I4010 and I4015 grating • MI60 for I6010 and I6015 grating • MT5020 for T5020 grating • MT3320 for T3320 grating • MT3810 for T3810 grating • MT3815 for T3815 grating • MHI47 for HI47 grating • MHI58 for HI58 grating)*



## Coating/Sealing Products:

To maintain corrosion resistance and structural integrity, Fibergrate offers epoxy clear coating in an aerosol can\*, to protect the exposed ends of cut panels and other components.

*\*230 mL sealing kits are still available with minimum order requirements.*

## Grating Edge Ramps

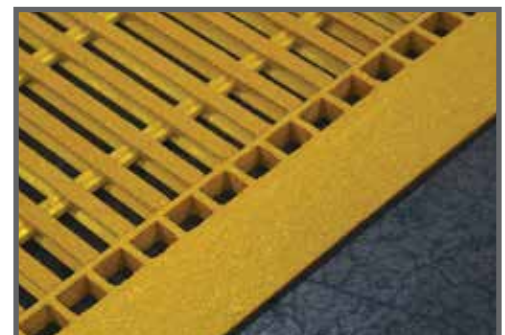
Fibergrate's new standard grating edge ramps can be used with 25 mm, 38 mm, and 51 mm deep Safe-T-Span® pultruded grating. These grating edge ramps are offered in dark grey or yellow and have a quartz grit top surface. Grating edge ramps are stocked in 3.7 m lengths; however, they can be easily fabricated to meet any length requirements.

*For additional details, please visit our website at:*

<http://fibergrate.uk/products/accessories-complementary-products/grating-edge-ramps/>



Safe-T-Span® pultruded grating with edge ramp



Safe-T-Span® pultruded grating with edge ramp

# Safe-T-Span® Industrial Grating Details



I4010 & I6010 Grating



Copper Mining Facility



Offshore Oil & Gas Platform

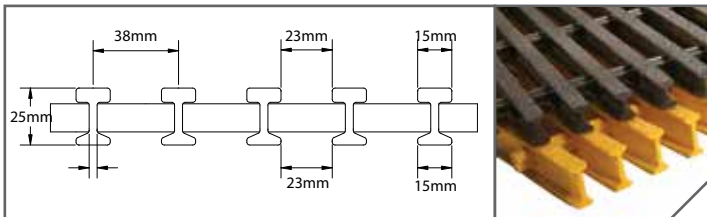
Safe-T-Span industrial grating is available in 25 mm, 32 mm, and 38 mm depths in an I-bar configuration with 40%, 50%, and 60% open areas. A 51 mm depth T-bar configuration with 33% or 50% open area is also available for applications requiring wider spans or lower deflections. For details and load charts for 32 mm depth products, please visit our website at [fibergrate.uk](http://fibergrate.uk) > Products > Pultruded Grating > Custom Pultruded Gratings.

## Grating Details

Refer to chart on page 4 for Grating Selection.

### 25 mm Deep I6010

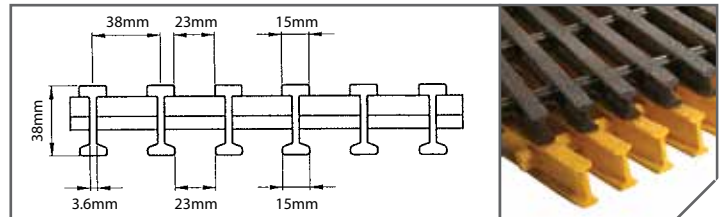
# of Bars/ m of Width	Load Bar Depth	Open Area	Load Bar Centres	Approximate Weight
26	25 mm	60%	38 mm	13.3 kg/m <sup>2</sup>



Section Properties per m of Width:  $A = 5.6 \times 10^3 \text{ mm}^2$   $I = 4.5 \times 10^5 \text{ mm}^4$   $S = 3.4 \times 10^4 \text{ mm}^3$   
Average  $EI = 15983 \text{ kN}\cdot\text{mm}^2$  (SPAN  $\geq 610\text{mm}$ )

### 38 mm Deep I6015

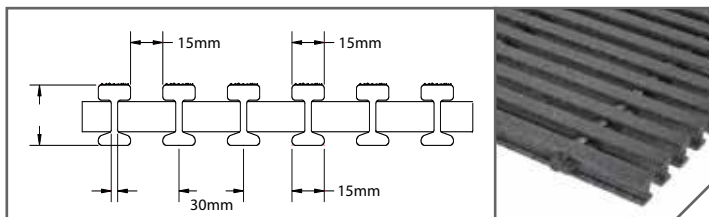
# of Bars/ m of Width	Load Bar Depth	Open Area	Load Bar Centres	Approximate Weight
26	38 mm	60%	38 mm	15.4 kg/m <sup>2</sup>



Section Properties per m of Width:  $A = 6.8 \times 10^3 \text{ mm}^2$   $I = 1.3 \times 10^6 \text{ mm}^4$   $S = 6.5 \times 10^4 \text{ mm}^3$   
Average  $EI = 43862 \text{ kN}\cdot\text{mm}^2$  (SPAN  $\geq 610\text{mm}$ )

### 25 mm Deep I5010

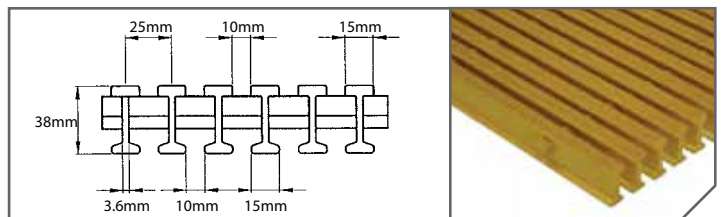
# of Bars/ m of Width	Load Bar Depth	Open Area	Load Bar Centres	Approximate Weight
33	25 mm	50%	30mm	15.9 kg/m <sup>2</sup>



Section Properties per m of Width:  $A = 7.0 \times 10^3 \text{ mm}^2$   $I = 5.6 \times 10^5 \text{ mm}^4$   $S = 4.2 \times 10^4 \text{ mm}^3$   
Average  $EI = 19776 \text{ kN}\cdot\text{mm}^2$  (SPAN  $\geq 610\text{mm}$ )

### 38 mm Deep I4015 (ADA Compliant)

# of Bars/ m of Width	Load Bar Depth	Open Area	Load Bar Centres	Approximate Weight
39	38 mm	40%	25 mm	22.5 kg/m <sup>2</sup>

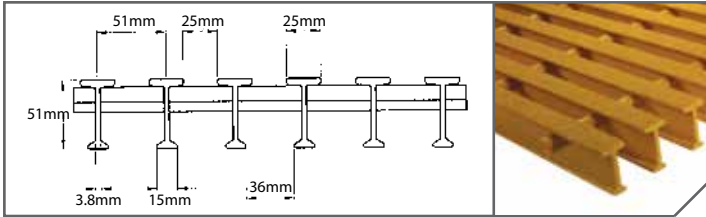


Section Properties per m of Width:  $A = 1.0 \times 10^4 \text{ mm}^2$   $I = 1.9 \times 10^6 \text{ mm}^4$   $S = 9.7 \times 10^4 \text{ mm}^3$   
Average  $EI = 65036 \text{ kN}\cdot\text{mm}^2$  (SPAN  $\geq 610\text{mm}$ )

# Safe-T-Span® Industrial Grating Details

## 51mm Deep T5020

# of Bars/ m of Width	Load Bar Depth	Open Area	Load Bar Centres	Approximate Weight
20	51 mm	50%	51 mm	10.3 kg/m <sup>2</sup>

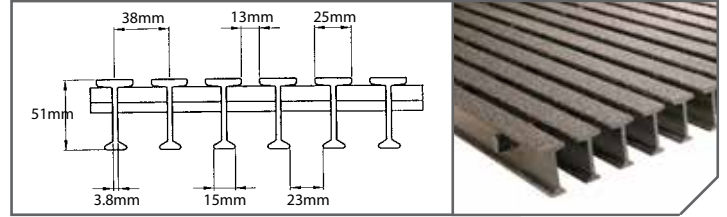


Section Properties per m of Width:  $A=6.8 \times 10^3 \text{ mm}^2$   $I=2.3 \times 10^6 \text{ mm}^4$   $S_t=1.1 \times 10^5 \text{ mm}^3$   $S_b=7.9 \times 10^4 \text{ mm}^3$   
Average EI = 71738 kN-mm<sup>2</sup> (SPAN ≥ 610mm)

## 51 mm Deep T3320 (ADA Compliant)



# of Bars/ m of Width	Load Bar Depth	Open Area	Load Bar Centres	Approximate Weight
26	51 mm	33%	38 mm	18.0 kg/m <sup>2</sup>

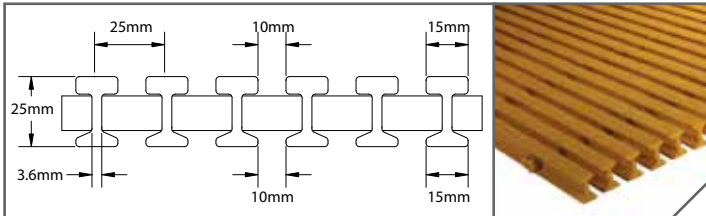


Section Properties per m of Width:  $A=9.1 \times 10^3 \text{ mm}^2$   $I=3.3 \times 10^6 \text{ mm}^4$   $S_t=1.4 \times 10^5 \text{ mm}^3$   $S_b=1.1 \times 10^5 \text{ mm}^3$   
Average EI = 93449 kN-mm<sup>2</sup> (SPAN ≥ 610mm)

## 25 mm Deep I4010 (ADA Compliant)



# of Bars/ m of Width	Load Bar Depth	Open Area	Load Bar Centres	Approximate Weight
39	25 mm	40%	25 mm	18.4 kg/m <sup>2</sup>

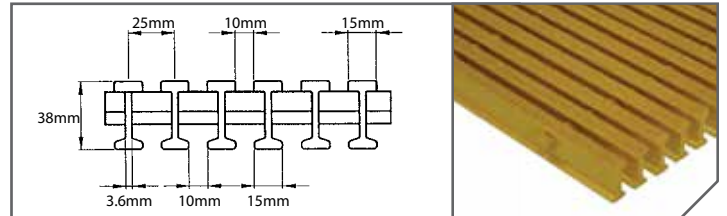


Section Properties per m of Width:  $A=8.4 \times 10^3 \text{ mm}^2$   $I=6.8 \times 10^5 \text{ mm}^4$   $S=5.1 \times 10^4 \text{ mm}^3$   
Average EI = 23442 kN-mm<sup>2</sup> (SPAN ≥ 610mm)

## 38 mm Deep I4015 (ADA Compliant)



# of Bars/ m of Width	Load Bar Depth	Open Area	Load Bar Centres	Approximate Weight
39	38 mm	40%	25 mm	22.5 kg/m <sup>2</sup>



Section Properties per m of Width:  $A=1.0 \times 10^4 \text{ mm}^2$   $I=1.9 \times 10^6 \text{ mm}^4$   $S=9.7 \times 10^4 \text{ mm}^3$   
Average EI = 65036 kN-mm<sup>2</sup> (SPAN ≥ 610mm)

# Safe-T-Span® High Load Capacity Grating

High Load Capacity (HI) pultruded grating is yet another product in the arsenal of engineered glass reinforced plastic (GRP) solutions by Fibergrate. While capitalising on some of the traditional benefits of pultruded grating products - high strength, corrosion resistance, slip resistance, fire retardancy, non-conductivity, and low maintenance - this pultruded GRP product has been engineered to carry the forklift and tractor trailer loads that traditional pultruded GRP grating products are unable to support.

- 37%, 47%, and 58% open surface area
- Available in 25 mm, 38 mm, 51 mm, 64 mm, and 76 mm depths
- Rated for up to H20 loads in all five depths
- Flame spread rating of 25 or less (when tested in accordance with ASTM E-84), and a Class 1 Fire Rating
- HI37 Grating is ADA Compliant












- Standard panels consist of:
  - Fire-retardant vinyl ester resin system
  - Dark grey in colour
  - Aluminium oxide grit top surface

Each HI grating is specially engineered to meet specific requirements. Contact the Fibergrate engineering team to determine which grating offers the best solution for your high load needs. (Applications with traffic perpendicular to trench or with turning wheel loads, contact Fibergrate engineering for design assistance.)



# High Load Capacity Grating Details

## Allowable Spans for Vehicular Loads

	Wheel Load (kg) (1/2 Axle Load + 30% Impact)	Load Distribution (mm)		Allowable Span <sup>2,3</sup> (mm)					Load Distribution (mm)		Allowable Span <sup>2,3</sup> (mm)											
		Parallel to Axle (1)	Perpendicular to Axle	HI3710	HI3715	HI3720	HI3725	HI3730	Parallel to Axle (1)	Perpendicular to Axle	HI4710	HI4715	HI4720	HI4725	HI4730	Parallel to Axle (1)	Perpendicular to Axle	HI5810	HI5815	HI5820	HI5825	HI5830
 <b>AASHTO H-25 Truck<sup>4</sup></b> 18 144 kg Axle Load Dual Wheels	11 793	635 + 51	635	431	609	736	889	1 066	635 + 60	635	406	584	711	838	1 016	635 + 76	635	381	558	685	787	965
 <b>AASHTO H-20 Truck<sup>4</sup></b> 14 515 kg Axle Load Dual Wheels	9 435	508 + 51	508	406	584	736	863	1 041	508 + 60	508	381	558	685	838	990	508 + 76	508	355	533	660	787	939
 <b>AASHTO H-15 Truck<sup>4</sup></b> 10 886 kg Axle Load Dual Wheels	7 076	381 + 51	381	381	558	711	863	1 041	381 + 60	381	355	533	685	812	990	381 + 76	381	330	508	635	762	939
 <b>AASHTO H-10 Truck<sup>4</sup></b> 7 257 kg Axle Load	4 717	254 + 51	254	330	533	711	863	1 066	254 + 60	254	304	508	685	812	1 016	254 + 76	254	279	482	635	787	939
 <b>AASHTO H-5 Truck<sup>4</sup></b> 3 629 kg Axle Load	2 359	127 + 51	127	304	558	736	889	1 092	127 + 60	127	279	533	711	863	1 066	127 + 76	127	254	508	660	812	1 016
 <b>Passenger Vehicles<sup>5</sup></b> 2 868 kg Vehicle 1 623 kg Load 60% Drive Axle Load	1 751	229 + 51	229	431	660	863	1 066	1 295	229 + 60	229	406	635	838	1 016	1 244	229 + 76	229	381	609	787	965	1 168
 <b>5 Ton Capacity Forklift<sup>5</sup></b> 6 532 kg Vehicle 11 068 kg Total Load 85% Drive Axle Load	6 114	279 + 51	279	304	508	660	812	990	279 + 60	279	279	482	635	787	939	279 + 76	279	254	431	609	736	889
 <b>3 Ton Capacity Forklift<sup>5</sup></b> 4 445 kg Vehicle 7 168 kg Total Load 85% Drive Axle Load	3 960	178 + 51	178	279	508	685	838	1 016	178 + 60	178	254	482	635	787	965	178 + 76	178	228	406	609	736	914
 <b>1 Ton Capacity Forklift<sup>5</sup></b> 1 905 kg Vehicle 2 182 kg Total Load 85% Drive Axle Load	1 554	102 + 51	102	355	609	812	990	1 193	102 + 60	102	330	584	762	939	1 168	102 + 76	102	304	558	736	914	1 117

### NOTES:

- Load is carried by the grating load bars immediately under the wheel, plus two additional load bars, one on each side of the wheel.
- Allowable Span is based on a 6.4 mm maximum deflection and a Factor of Safety of 3.0. 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 Fibergate 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.

- Long Span Walkways
- Ramps and Loading Docks
- Trench Covers
- Flooring/Platforms
- Storage Areas
- Assembly Lines



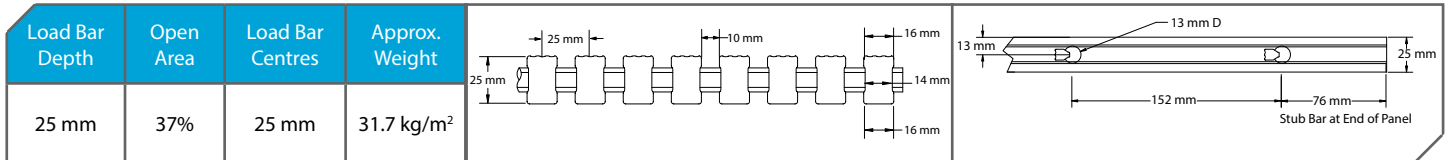


# High Load Capacity Grating Details

## Grating Details

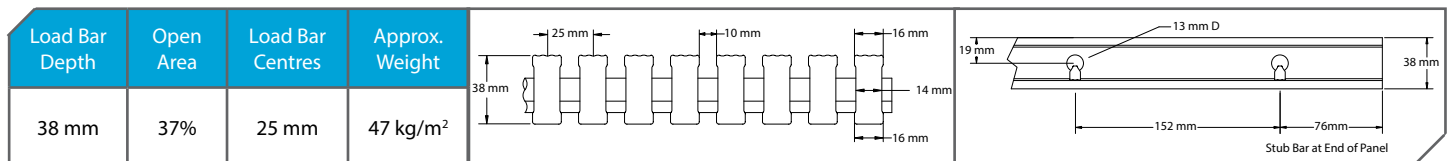
HI37 Series 

### 25 mm Deep HI3710



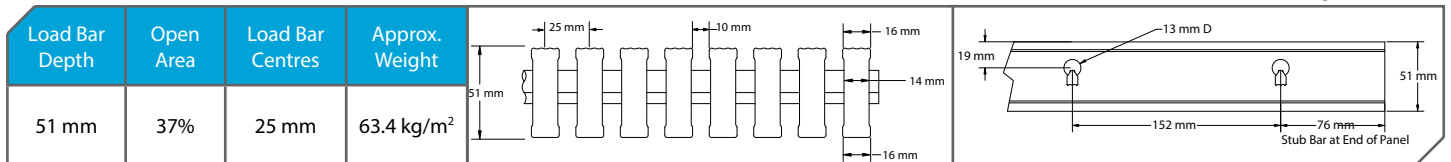
Section Properties per Ft of Width: A=14,977 mm<sup>2</sup>/m I=8.11x10<sup>5</sup> mm<sup>4</sup>/m S=1.62x10<sup>6</sup> mm<sup>3</sup>/m

### 38 mm Deep HI3715



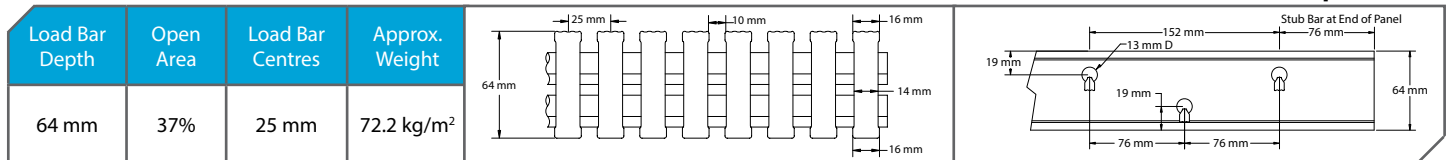
Section Properties per Ft of Width: A=22 088 mm<sup>2</sup>/m I=2.72x10<sup>6</sup> mm<sup>4</sup>/m S=3.63x10<sup>6</sup> mm<sup>3</sup>/m

### 51 mm Deep HI3720



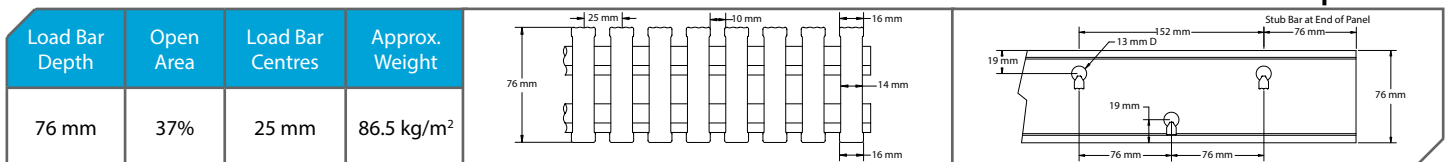
Section Properties per Ft of Width: A=29 250 mm<sup>2</sup>/m I=6.52x10<sup>6</sup> mm<sup>4</sup>/m S=6.52x10<sup>6</sup> mm<sup>3</sup>/m

### 64 mm Deep HI3725



Section Properties per Ft of Width: A=36 437 mm<sup>2</sup>/m I=1.26x10<sup>7</sup> mm<sup>4</sup>/m S=1.01x10<sup>7</sup> mm<sup>3</sup>/m

### 76 mm Deep HI3730



Section Properties per Ft of Width: A=43 574 mm<sup>2</sup>/m I=2.17x10<sup>7</sup> mm<sup>4</sup>/m S=1.45x10<sup>7</sup> mm<sup>3</sup>/m

**NOTES:**

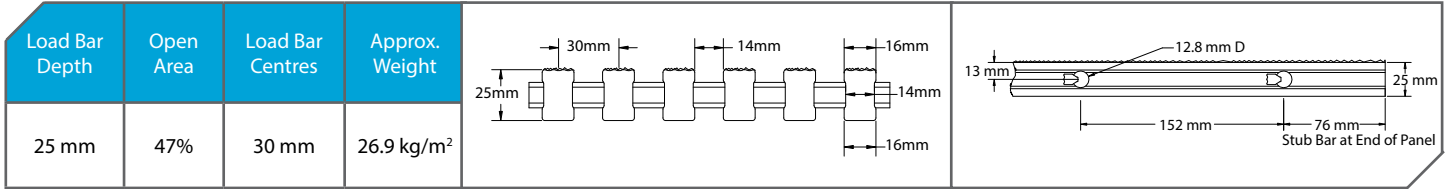
1. All pultruded grating panels are assembled to size from stocked bar lengths of 6.1m and 7.3m to minimize waste and cost. The maximum panel widths (tie bar length) are 1.2m nominal.
2. Available panel sizes are dependent upon application requirements and individual panel weight considerations, as this is a very heavy product.

# High Load Capacity Grating Details

## Grating Details

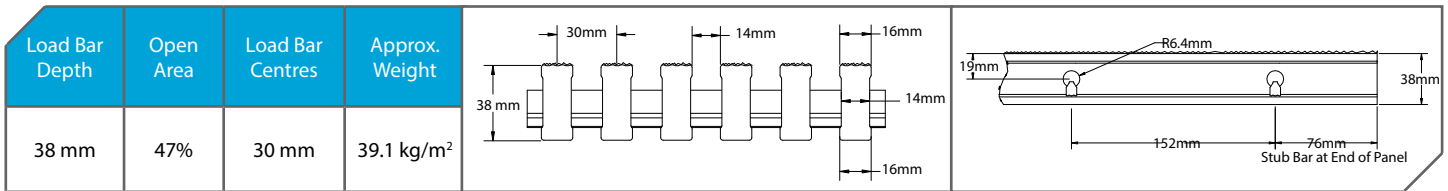
### HI47 Series

#### 25 mm Deep HI4710



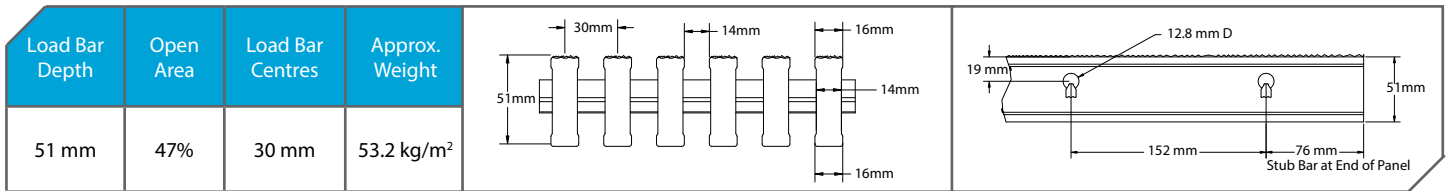
Section Properties per m of Width:  $A=1.3 \times 10^4 \text{ mm}^2$   $I=7.0 \times 10^5 \text{ mm}^4$   $S=5.4 \times 10^4 \text{ mm}^3$

#### 38 mm Deep HI4715



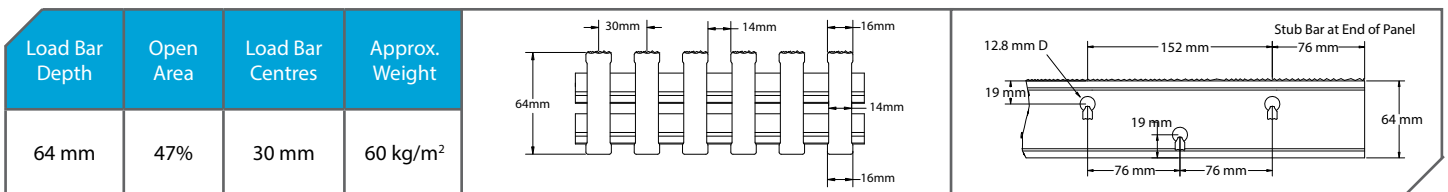
Section Properties per m of Width:  $A=1.9 \times 10^4 \text{ mm}^2$   $I=2.3 \times 10^6 \text{ mm}^4$   $S=1.2 \times 10^5 \text{ mm}^3$

#### 51 mm Deep HI4720



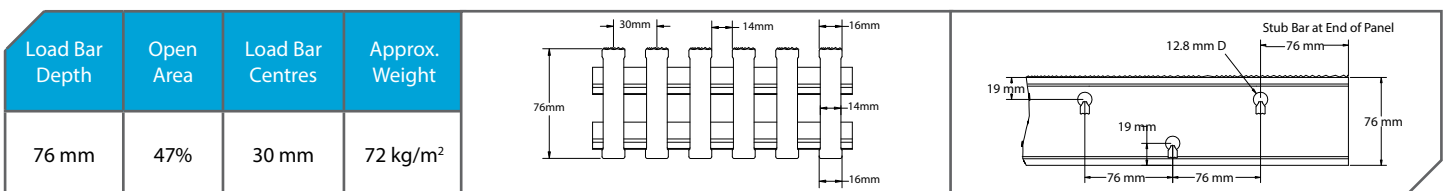
Section Properties per m of Width:  $A=2.5 \times 10^4 \text{ mm}^2$   $I=5.4 \times 10^6 \text{ mm}^4$   $S=2.1 \times 10^5 \text{ mm}^3$

#### 64 mm Deep HI4725



Section Properties per m of Width:  $A=3.07 \times 10^4 \text{ mm}^2$   $I=1.09 \times 10^7 \text{ mm}^4$   $S=3.31 \times 10^5 \text{ mm}^3$

#### 76 mm Deep HI4730



Section Properties per m of Width:  $A=3.67 \times 10^4 \text{ mm}^2$   $I=1.81 \times 10^7 \text{ mm}^4$   $S=4.74 \times 10^5 \text{ mm}^3$

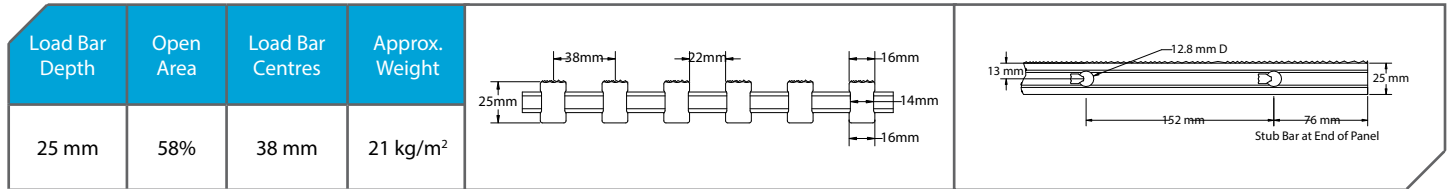
- NOTES:**
- All pultruded grating panels are assembled to size from stocked bar lengths of 6.1m and 7.3m to minimize waste and cost. The maximum panel widths (tie bar length) are 1.2m nominal.
  - Available panel sizes are dependent upon application requirements and individual panel weight considerations because this is a very heavy product.

# High Load Capacity Grating Details

## Grating Details

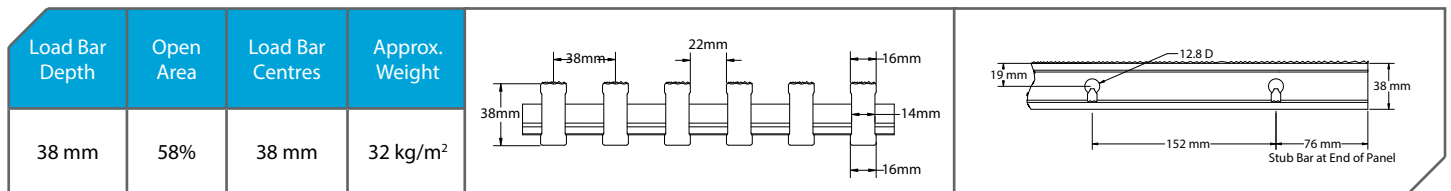
### HI58 Series

#### 25 mm Deep HI5810



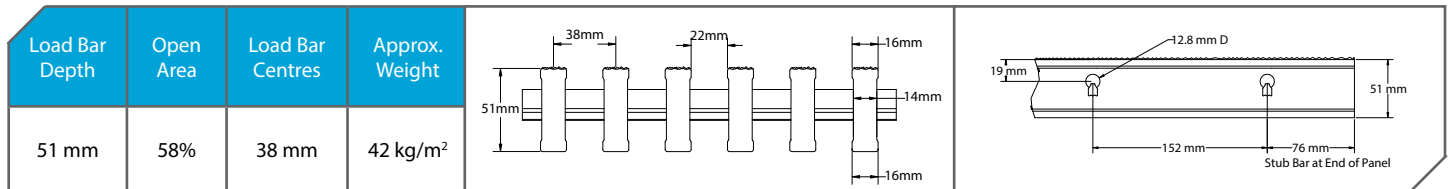
**Section Properties per m of Width:**  $A=9.99 \times 10^3 \text{ mm}^2$   $I=5.46 \times 10^5 \text{ mm}^4$   $S=4.19 \times 10^4 \text{ mm}^3$

#### 38 mm Deep HI5815



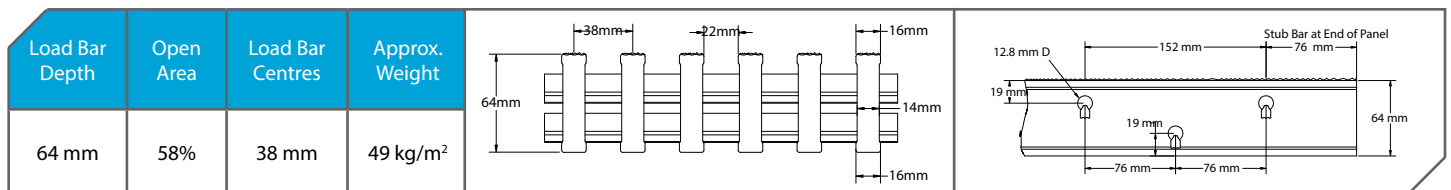
**Section Properties per m of Width:**  $A=1.47 \times 10^4 \text{ mm}^2$   $I=1.86 \times 10^6 \text{ mm}^4$   $S=9.62 \times 10^4 \text{ mm}^3$

#### 51 mm Deep HI5820



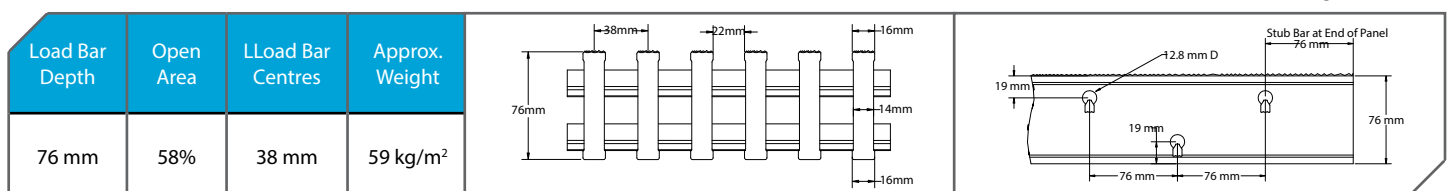
**Section Properties per m of Width:**  $A=1.95 \times 10^4 \text{ mm}^2$   $I=4.26 \times 10^6 \text{ mm}^4$   $S=1.68 \times 10^5 \text{ mm}^3$

#### 64 mm Deep HI5825



**Section Properties per m of Width:**  $A=1.95 \times 10^4 \text{ mm}^2$   $I=8.32 \times 10^6 \text{ mm}^4$   $S=2.62 \times 10^5 \text{ mm}^3$

#### 76 mm Deep HI5830

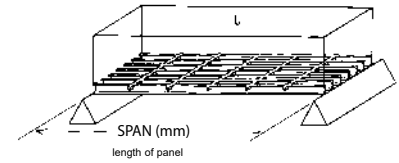


**Section Properties per m of Width:**  $A=2.91 \times 10^4 \text{ mm}^2$   $I=1.43 \times 10^7 \text{ mm}^4$   $S=3.75 \times 10^5 \text{ mm}^3$

#### NOTES:

- All pultruded grating panels are assembled to size from stocked bar lengths of 6.1m and 7.3m to minimize waste and cost. The maximum panel widths (tie bar length) are 1.2m nominal.
- Available panel sizes are dependent upon application requirements and individual panel weight considerations because this is a very heavy product.

# Industrial Series Uniform Load Chart



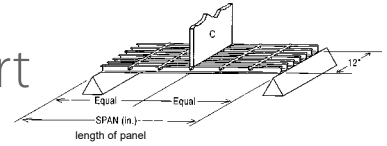
**IMPORTANT:** Load information is different for Phenolic resin gratings. Please contact Fibergate for Phenolic load information.

INDUSTRIAL SERIES SAFE-T-SPAN UNIFORM LOAD TABLE - DEFLECTIONS IN MILLIMETRES										
CLEAR SPAN (mm)	STYLE	LOAD (kN/m <sup>2</sup> )							MAXIMUM RECOMMENDED LOAD (kN/m <sup>2</sup> )	ULTIMATE CAPACITY (kN/m <sup>2</sup> )
		3.0	5.0	10.0	20.0	30.0	50.0	100.0		
400	I6010	< 0.3	< 0.3	0.3	0.6	0.9	1.4	2.8	257	514
	I6015	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	0.4	538	1076
	I5010	< 0.3	< 0.3	< 0.3	< 0.3	0.4	0.9	2.2	321	641
	I5015	< 0.3	< 0.3	< 0.3	< 0.3	0.3	0.5	1.1	745	1491
	T5020	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	574	1148
	I4010	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	385	769
	I4015	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	863	1727
	T3320	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	766	1532
600	I6010	0.3	0.6	1.2	2.3	3.5	5.9	11.8	140	280
	I6015	< 0.3	< 0.3	0.5	0.9	1.4	2.3	4.5	274	548
	I5010	< 0.3	0.3	1.0	2.5	3.9	6.8	—	175	351
	I5015	< 0.3	< 0.3	< 0.3	0.6	0.9	1.6	3.2	323	647
	T5020	< 0.3	< 0.3	< 0.3	0.6	1.0	1.7	3.4	305	610
	I4010	0.3	0.5	0.9	1.7	2.6	4.2	8.4	210	420
	I4015	< 0.3	< 0.3	0.4	0.7	1.1	1.8	3.5	401	803
	T3320	< 0.3	< 0.3	< 0.3	0.5	0.8	1.2	2.5	407	813
800	I6010	1.0	1.7	3.4	6.8	10.2	—	—	80	161
	I6015	0.4	0.7	1.3	2.6	3.9	6.5	—	148	297
	I5010	1.1	1.5	2.4	4.4	6.3	10.1	—	101	202
	I5015	< 0.3	0.4	0.9	1.9	3.0	5.0	10.1	179	357
	T5020	< 0.3	0.4	0.8	1.5	2.3	3.8	7.6	173	346
	I4010	0.7	1.2	2.5	5.0	7.5	12.4	—	121	242
	I4015	< 0.3	0.5	0.9	1.7	2.5	4.1	8.2	210	420
	T3320	< 0.3	0.3	0.6	1.1	1.7	2.8	5.7	231	462
1000	I6010	2.3	3.9	7.8	—	—	—	—	52	104
	I6015	0.9	1.4	2.8	5.6	8.4	—	—	96	192
	I5010	2.8	3.3	4.7	7.5	10.2	—	—	65	129
	I5015	0.6	1.0	2.2	4.4	6.7	11.3	—	133	265
	T5020	0.5	0.9	1.8	3.5	5.2	8.7	—	114	229
	I4010	1.5	2.4	4.9	9.8	—	—	—	78	155
	I4015	0.6	0.9	1.9	3.7	5.5	9.2	—	147	294
	T3320	0.4	0.7	1.3	2.6	4.0	6.6	—	152	305
1200	I6010	4.3	7.3	—	—	—	—	—	36	72
	I6015	1.8	2.9	5.8	11.4	—	—	—	72	144
	I5010	4.7	6.3	10.4	—	—	—	—	45	90
	I5015	1.3	2.2	4.5	9.1	—	—	—	93	186
	T5020	1.1	1.8	3.7	7.4	11.1	—	—	85	169
	I4010	3.0	4.9	9.7	—	—	—	—	54	108
	I4015	1.2	1.9	3.9	7.8	11.7	—	—	119	237
	T3320	0.8	1.4	2.8	5.6	8.4	—	—	112	225
1400	I6010	6.7	11.9	—	—	—	—	—	18	36
	I6015	3.4	5.6	11.3	—	—	—	—	53	106
	I5010	6.2	11.3	—	—	—	—	—	32	65
	I5015	2.6	4.4	8.8	—	—	—	—	52	104
	T5020	2.1	3.4	6.9	—	—	—	—	60	120
	I4010	6.0	9.9	—	—	—	—	—	39	77
	I4015	2.2	3.7	7.5	—	—	—	—	80	160
	T3320	1.6	2.6	5.2	10.4	—	—	—	79	158
1600	I6015	6.0	10.3	—	—	—	—	—	36	72
	I5015	4.7	8.0	—	—	—	—	—	89	178
	T5020	3.5	5.7	11.4	—	—	—	—	37	75
	I4015	4.0	6.7	—	—	—	—	—	35	70
	T3320	2.6	4.3	8.6	—	—	—	—	48	97
1800	I6015	9.9	—	—	—	—	—	—	40	79
	I5015	7.9	—	—	—	—	—	—	368	736
	T5020	5.3	8.8	—	—	—	—	—	33	65
	I4015	6.8	11.1	—	—	—	—	—	38	76
	T3320	3.9	6.5	—	—	—	—	—	43	85

- NOTES:**
- The designer should not exceed the MAX RECOMMENDED LOAD at any given span. MAX RECOMMENDED LOAD represents a 2:1 factor of safety on ULTIMATE CAPACITY.
  - 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.
  - Walking loads, typically 244-317 kg/m<sup>2</sup> maximum are recommended for pedestrian traffic. Deflections for worker comfort are typically limited to the lesser of 9.5mm or CLEAR SPAN divided by 125; for a firmer feel, limit deflection to the lesser of 6.4mm or CLEAR SPAN divided by 200.
  - 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 the ASCE Structural Plastics Design Manual.
  - All gratings were tested in accordance with the ANSI Standard: GRP Composites Grating Manual for Pultruded and Moulded Grating, and Stair Treads.
  - Gratings in this table are not rated for motorized vehicle traffic. For these applications, please select appropriate High Load Capacity grating.



# Industrial Series Concentrated Line Load Chart



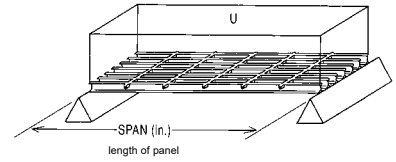
**IMPORTANT:** Load information is different for Phenolic resin gratings. Please contact Fibergrate for Phenolic load information.

INDUSTRIAL SERIES SAFE-T-SPAN CONCENTRATED LINE LOAD TABLE - DEFLECTIONS IN MILLIMETRES										
CLEAR SPAN (mm)	STYLE	LOAD (kN/m of Width)							MAXIMUM RECOM. LOAD (kN/m)	ULTIMATE CAPACITY (kN/m)
		0.7	1.5	5.0	10.0	15.0	20.0	30.0		
400	I6010	< 0.3	< 0.3	0.4	0.7	1.1	1.4	2.1	50	101
	I6015	< 0.3	< 0.3	< 0.3	0.4	0.7	0.9	1.3	104	207
	I5010	< 0.3	< 0.3	0.5	1.1	1.7	2.3	3.4	63	125
	I5015	< 0.3	< 0.3	< 0.3	0.4	0.5	0.7	1.0	129	259
	T5020	< 0.3	< 0.3	< 0.3	0.3	0.5	0.7	1.0	108	216
	I4010	< 0.3	< 0.3	0.5	0.9	1.4	1.9	2.8	75	150
	I4015	< 0.3	< 0.3	< 0.3	0.4	0.5	0.7	1.1	155	311
	T3320	< 0.3	< 0.3	< 0.3	< 0.3	0.3	0.4	0.6	159	319
600	I6010	< 0.3	0.5	1.7	3.3	4.9	6.5	9.8	42	85
	I6015	< 0.3	< 0.3	0.6	1.2	1.8	2.4	3.6	81	163
	I5010	< 0.3	0.5	1.4	2.8	4.2	5.6	8.5	53	105
	I5015	< 0.3	< 0.3	0.5	1.0	1.4	1.9	2.8	102	203
	T5020	< 0.3	< 0.3	0.3	0.7	1.1	1.5	2.2	92	184
	I4010	< 0.3	0.4	1.2	2.4	3.6	4.7	7.1	63	126
	I4015	< 0.3	< 0.3	0.4	0.9	1.4	1.9	2.8	122	244
	T3320	< 0.3	< 0.3	0.3	0.6	0.9	1.2	1.7	120	240
800	I6010	0.5	1.1	3.6	7.1	10.7	—	—	33	66
	I6015	< 0.3	0.3	1.2	2.4	3.6	4.8	7.3	63	125
	I5010	0.4	0.8	2.6	5.1	7.7	10.2	—	42	83
	I5015	< 0.3	< 0.3	1.0	2.0	2.9	3.9	5.9	78	156
	T5020	< 0.3	< 0.3	0.7	1.5	2.2	3.0	4.6	73	146
	I4010	0.3	0.7	2.2	4.3	6.4	8.6	—	50	100
	I4015	< 0.3	< 0.3	0.8	1.7	2.6	3.4	5.2	94	188
	T3320	< 0.3	< 0.3	0.6	1.2	1.7	2.3	3.4	94	189
1000	I6010	0.8	1.8	5.9	11.9	—	—	—	26	51
	I6015	< 0.3	0.7	2.2	4.5	6.8	9.0	—	49	98
	I5010	0.6	1.4	4.6	9.2	—	—	—	32	65
	I5015	< 0.3	0.5	1.8	3.6	5.5	7.3	11.0	61	122
	T5020	< 0.3	0.4	1.4	2.8	4.3	5.7	8.6	57	114
	I4010	0.6	1.2	3.9	7.7	11.5	—	—	39	77
	I4015	< 0.3	0.4	1.5	3.0	4.5	6.0	9.1	73	147
	T3320	< 0.3	0.4	1.1	2.2	3.2	4.3	6.4	77	155
1200	I6010	1.4	2.9	9.7	—	—	—	—	21	43
	I6015	0.5	1.2	3.9	7.9	11.8	—	—	40	81
	I5010	1.1	2.4	8.1	—	—	—	—	26	52
	I5015	0.4	0.9	3.2	6.3	9.5	12.7	—	50	101
	T5020	0.3	0.7	2.5	4.9	7.4	9.9	—	47	93
	I4010	1.0	2.0	6.7	—	—	—	—	31	63
	I4015	0.4	0.8	2.6	5.2	7.8	10.3	—	61	121
	T3320	< 0.3	0.6	1.9	3.8	5.6	7.5	11.2	65	129
1400	I6010	2.3	5.0	—	—	—	—	—	19	38
	I6015	0.9	2.0	6.5	—	—	—	—	36	72
	I5010	1.8	4.0	—	—	—	—	—	23	46
	I5015	0.7	1.6	5.2	10.3	—	—	—	45	90
	T5020	0.6	1.2	3.9	7.8	11.7	—	—	41	83
	I4010	1.6	3.4	11.4	—	—	—	—	27	55
	I4015	0.7	1.4	4.3	8.5	—	—	—	54	108
	T3320	0.4	0.9	3.0	6.0	8.9	11.9	—	54	109
1600	I6010	3.8	8.7	—	—	—	—	—	14	28
	I6015	1.4	3.0	10.1	—	—	—	—	33	67
	I5010	3.0	6.5	—	—	—	—	—	21	42
	I5015	1.1	2.4	8.0	—	—	—	—	42	83
	T5020	0.8	1.8	5.7	11.4	—	—	—	39	77
	I4010	2.6	5.5	—	—	—	—	—	25	51
	I4015	1.0	2.1	6.7	—	—	—	—	50	100
	T3320	0.6	1.3	4.3	8.7	—	—	—	46	92
1800	I6015	2.1	4.5	—	—	—	—	—	28	56
	I5010	4.8	10.1	—	—	—	—	—	18	36
	I5015	1.6	3.5	11.9	—	—	—	—	35	71
	T5020	1.1	2.4	7.9	—	—	—	—	33	66
	I4010	3.9	8.4	—	—	—	—	—	22	44
	I4015	1.4	3.0	9.9	—	—	—	—	42	85
	T3320	0.9	1.8	5.9	11.7	—	—	—	42	83

**NOTES:**

- The designer should not exceed the MAX RECOMMENDED LOAD at any given span. MAX RECOMMENDED LOAD represents a 2:1 factor of safety on ULTIMATE CAPACITY.
- 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.
- Walking loads, typically 244-317 kg/m<sup>2</sup> maximum are recommended for pedestrian traffic. Deflections for worker comfort are typically limited to the lesser of 9.5mm or CLEAR SPAN divided by 125; for a firmer feel, limit deflection to the lesser of 6.4mm or CLEAR SPAN divided by 200.
- 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 the ASCE Structural Plastics Design Manual.
- All gratings were tested in accordance with the ANSI Standard: GRP Composites Grating Manual for Pultruded and Moulded Grating, and Stair Treads.
- Gratings in this table are not rated for motorized vehicle traffic. For these applications, please select appropriate High Load Capacity grating.

# HI37 Grating Uniform Load Chart

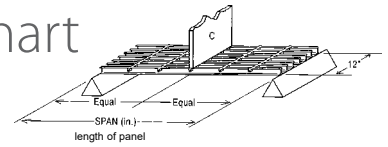


HI37 PULTRUDED SERIES UNIFORM LOAD TABLE - DEFLECTIONS IN MILLIMETRES													
CLEAR SPAN (mm)	STYLE	LOAD (kN/m <sup>2</sup> )										MAXIMUM RECOM. LOAD (kN/m <sup>2</sup> )	ULTIMATE CAPACITY (kN/m <sup>2</sup> )
		5.0	7.5	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0		
400	HI3710	<0.3	<0.3	<0.3	<0.3	0.35	0.44	0.53	0.62	0.71	0.80	411	1235
	HI3715	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	767	2302
	HI3720	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	1983	5949
	HI3725	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	2036	6109
	HI3730	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	2613	7840
600	HI3710	0.42	0.62	0.83	1.25	1.66	2.08	2.49	2.91	3.33	3.74	196	590
	HI3715	<0.3	<0.3	<0.3	0.32	0.43	0.54	0.65	0.75	0.86	0.97	425	1276
	HI3720	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.34	0.38	0.43	905	2717
	HI3725	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	979	2938
	HI3730	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	1236	3709
800	HI3710	1.22	1.84	2.45	3.67	4.90	6.12	7.35	8.57	9.80	11.02	118	355
	HI3715	<0.3	0.44	0.58	0.88	1.17	1.46	1.75	2.04	2.33	2.63	286	860
	HI3720	<0.3	<0.3	<0.3	0.43	0.58	0.72	0.87	1.01	1.16	1.30	523	1570
	HI3725	<0.3	<0.3	<0.3	<0.3	0.33	0.41	0.50	0.58	0.66	0.74	592	1778
	HI3730	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.30	0.35	0.40	0.45	737	2213
1000	HI3710	2.99	4.49	5.98	8.97	11.96	—	—	—	—	—	75	227
	HI3715	0.71	1.07	1.42	2.14	2.85	3.56	4.27	4.99	5.70	6.41	183	550
	HI3720	0.34	0.51	0.68	1.01	1.35	1.69	2.03	2.37	2.71	3.04	343	1031
	HI3725	<0.3	<0.3	0.37	0.56	0.75	0.94	1.12	1.31	1.50	1.68	406	1218
	HI3730	<0.3	<0.3	<0.3	0.35	0.46	0.58	0.70	0.81	0.93	1.04	499	1497
1200	HI3710	6.20	9.30	12.40	—	—	—	—	—	—	—	52	157
	HI3715	1.48	2.22	2.95	4.43	5.91	7.38	8.86	10.34	11.81	—	127	382
	HI3720	0.67	1.01	1.34	2.02	2.69	3.36	4.03	4.70	5.38	6.05	244	734
	HI3725	0.36	0.54	0.72	1.09	1.45	1.81	2.17	2.53	2.90	3.26	300	902
	HI3730	<0.3	0.34	0.46	0.68	0.91	1.14	1.37	1.59	1.82	2.05	365	1096
1400	HI3710	11.49	—	—	—	—	—	—	—	—	—	38	116
	HI3715	2.74	4.10	5.47	8.21	10.94	—	—	—	—	—	93	280
	HI3720	1.25	1.87	2.49	3.74	4.98	6.23	7.47	8.72	9.96	11.21	179	539
	HI3725	0.66	0.98	1.31	1.97	2.62	3.28	3.93	4.59	5.24	5.90	228	686
	HI3730	0.40	0.60	0.80	1.20	1.60	2.00	2.40	2.80	3.20	3.61	282	846
1600	HI3715	4.67	7.00	9.34	—	—	—	—	—	—	—	71	215
	HI3720	2.12	3.19	4.25	6.37	8.50	10.62	—	—	—	—	137	413
	HI3725	1.09	1.64	2.19	3.28	4.37	5.47	6.56	7.65	8.75	9.84	181	543
	HI3730	0.65	0.98	1.30	1.95	2.60	3.25	3.90	4.55	5.20	5.85	226	679
	HI3715	7.48	11.21	—	—	—	—	—	—	—	—	56	169
1800	HI3720	3.40	5.10	6.81	10.21	—	—	—	—	—	—	108	326
	HI3725	1.75	2.63	3.50	5.25	7.01	8.76	10.51	12.26	—	—	143	429
	HI3730	1.04	1.56	2.08	3.11	4.15	5.19	6.23	7.27	8.30	9.34	182	547
	HI3715	11.40	—	—	—	—	—	—	—	—	—	45	137
	HI3720	5.19	7.78	10.37	—	—	—	—	—	—	—	88	264
2000	HI3725	2.67	4.00	5.34	8.01	10.68	—	—	—	—	—	115	347
	HI3730	1.58	2.37	3.15	4.73	6.31	7.88	9.46	11.04	12.61	—	150	451
	HI3720	7.59	11.39	—	—	—	—	—	—	—	—	72	218
	HI3725	3.91	5.86	7.82	11.73	—	—	—	—	—	—	95	287
2200	HI3730	2.31	3.46	4.62	6.93	9.23	11.54	—	—	—	—	124	373
	HI3720	10.75	—	—	—	—	—	—	—	—	—	61	183
	HI3725	5.54	8.30	11.07	—	—	—	—	—	—	—	80	241
2400	HI3730	3.27	4.90	6.54	9.81	—	—	—	—	—	—	104	313
	HI4730	3.9	5.9	7.8	11.7	—	—	—	—	—	—	83	255

**NOTES:**

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- The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperatures only. Allowable loads for impact 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.
- Fibergate does not recommend this product for turning wheel loads. If these conditions are expected, contact Fibergate Engineering.
- Fibergate recommends a maximum deflection of 6.4 mm for this product under normal loading conditions. The use of L/500 may be required by certain construction codes. Check code requirements to determine design criteria.
- All gratings were tested in accordance with the ANSI Standard: GRP Composites Grating Manual for Pultruded and Moulded Grating, and Stair Treads.

# HI37 Grating Concentrated Line Load Chart



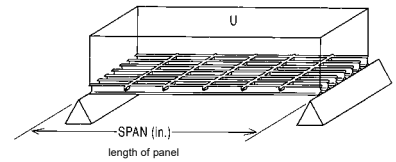
**HI37 PULTRUDED SERIES LINE LOAD TABLE - DEFLECTIONS IN MILLIMETRES**

CLEAR SPAN (mm)	STYLE	LOAD (kN/m of Width)										MAXIMUM RECOM. LOAD (kN/m)	ULTIMATE CAPACITY (kN/m)
		1.5	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0		
400	HI3710	<0.3	0.35	0.71	1.42	2.12	2.83	3.54	4.25	4.96	5.67	82	247
	HI3715	<0.3	<0.3	<0.3	0.41	0.61	0.82	1.02	1.23	1.43	1.64	153	460
	HI3720	<0.3	<0.3	<0.3	<0.3	<0.3	0.32	0.40	0.48	0.56	0.64	396	1189
	HI3725	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.34	0.39	407	1221
	HI3730	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	522	1568
600	HI3710	0.33	1.11	2.22	4.43	6.65	8.87	11.08	—	—	—	59	177
	HI3715	<0.3	<0.3	0.57	1.15	1.72	2.30	2.87	3.45	4.02	4.60	127	382
	HI3720	<0.3	<0.3	<0.3	0.51	0.77	1.02	1.28	1.54	1.79	2.05	271	815
	HI3725	<0.3	<0.3	<0.3	0.30	0.45	0.60	0.75	0.91	1.06	1.21	293	881
	HI3730	<0.3	<0.3	<0.3	<0.3	<0.3	0.36	0.45	0.54	0.63	0.72	370	1112
800	HI3710	0.73	2.45	4.90	9.80	—	—	—	—	—	—	47	142
	HI3715	<0.3	0.58	1.17	2.33	3.50	4.67	5.83	7.00	8.17	9.34	114	344
	HI3720	<0.3	<0.3	0.58	1.16	1.74	2.32	2.90	3.48	4.06	4.64	209	628
	HI3725	<0.3	<0.3	0.33	0.66	0.99	1.32	1.65	1.98	2.31	2.64	237	711
	HI3730	<0.3	<0.3	<0.3	0.40	0.60	0.81	1.01	1.21	1.41	1.61	295	885
1000	HI3710	1.44	4.78	9.57	—	—	—	—	—	—	—	37	113
	HI3715	0.34	1.14	2.28	4.56	6.84	9.12	11.40	—	—	—	91	275
	HI3720	<0.3	0.54	1.08	2.17	3.25	4.33	5.41	6.50	7.58	8.66	171	515
	HI3725	<0.3	<0.3	0.60	1.20	1.80	2.39	2.99	3.59	4.19	4.79	203	609
	HI3730	<0.3	<0.3	0.37	0.74	1.11	1.49	1.86	2.23	2.60	2.97	249	748
1200	HI3710	2.48	8.27	—	—	—	—	—	—	—	—	31	94
	HI3715	0.59	1.97	3.94	7.88	11.81	—	—	—	—	—	76	229
	HI3720	<0.3	0.90	1.79	3.58	5.38	7.17	8.96	10.75	12.55	—	146	440
	HI3725	<0.3	0.48	0.97	1.93	2.90	3.86	4.83	5.79	6.76	7.72	180	541
	HI3730	<0.3	0.30	0.61	1.21	1.82	2.43	3.04	3.64	4.25	4.86	219	657
1400	HI3710	3.94	—	—	—	—	—	—	—	—	—	27	81
	HI3715	0.94	3.13	6.25	12.51	—	—	—	—	—	—	65	196
	HI3720	0.43	1.42	2.85	5.69	8.54	11.38	—	—	—	—	125	377
	HI3725	<0.3	0.75	1.50	3.00	4.49	5.99	7.49	8.99	10.49	11.99	160	480
	HI3730	<0.3	0.46	0.92	1.83	2.75	3.66	4.58	5.49	6.41	7.32	197	592
1600	HI3710	5.88	—	—	—	—	—	—	—	—	—	23	71
	HI3715	1.40	4.67	9.34	—	—	—	—	—	—	—	57	172
	HI3720	0.64	2.12	4.25	8.50	—	—	—	—	—	—	110	330
	HI3725	0.33	1.09	2.19	4.37	6.56	8.75	10.94	—	—	—	144	434
	HI3730	<0.3	0.65	1.30	2.60	3.90	5.20	6.50	7.80	9.10	10.40	181	543
1800	HI3710	8.37	—	—	—	—	—	—	—	—	—	21	63
	HI3715	1.99	6.65	—	—	—	—	—	—	—	—	50	152
	HI3720	0.91	3.02	6.05	12.10	—	—	—	—	—	—	97	293
	HI3725	0.47	1.56	3.11	6.23	9.34	12.46	—	—	—	—	128	386
	HI3730	<0.3	0.92	1.85	3.69	5.54	7.38	9.23	11.07	—	—	164	492
2000	HI3710	11.48	—	—	—	—	—	—	—	—	—	18	56
	HI3715	2.73	9.12	—	—	—	—	—	—	—	—	45	137
	HI3720	1.24	4.15	8.30	—	—	—	—	—	—	—	88	264
	HI3725	0.64	2.14	4.27	8.54	—	—	—	—	—	—	115	347
	HI3730	0.38	1.26	2.52	5.05	7.57	10.09	12.61	—	—	—	150	451
2200	HI3715	3.64	12.13	—	—	—	—	—	—	—	—	41	125
	HI3720	1.66	5.52	11.04	—	—	—	—	—	—	—	80	240
	HI3725	0.85	2.84	5.69	11.37	—	—	—	—	—	—	105	316
	HI3730	0.50	1.68	3.36	6.72	10.07	—	—	—	—	—	136	410
2400	HI3715	4.73	—	—	—	—	—	—	—	—	—	38	114
	HI3720	2.15	7.17	—	—	—	—	—	—	—	—	73	220
	HI3725	1.11	3.69	7.38	—	—	—	—	—	—	—	96	289
	HI3730	0.65	2.18	4.36	8.72	—	—	—	—	—	—	125	376

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- Fibergrate recommends a maximum deflection of 6.4 mm for this product under normal loading conditions. The use of L/500 may be required by certain construction codes. Check code requirements to determine design criteria.
- All gratings were tested in accordance with the ANSI Standard: GRP Composites Grating Manual for Pultruded and Moulded Grating, and Stair Treads.

# HI47 Grating Uniform Load Chart

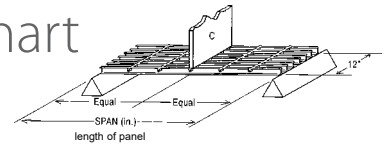


HI47 PULTRUDED SERIES UNIFORM LOAD TABLE - DEFLECTIONS IN MILLIMETRES													
CLEAR SPAN (mm)	STYLE	LOAD (kN/m <sup>2</sup> )										MAXIMUM RECOM. LOAD (kN/m <sup>2</sup> )	ULTIMATE CAPACITY (kN/m <sup>2</sup> )
		5.0	7.5	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0		
400	HI4710	<0.3	<0.3	<0.3	0.31	0.42	0.52	0.63	0.73	0.84	0.94	346	1038
	HI4715	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	645	1935
	HI4720	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	1671	5013
	HI4725	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	1715	5147
	HI4730	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	2201	6604
600	HI4710	0.49	0.74	0.98	1.47	1.96	2.45	2.94	3.43	3.92	4.41	165	496
	HI4715	<0.3	<0.3	<0.3	0.38	0.51	0.64	0.77	0.90	1.02	1.15	357	1072
	HI4720	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.34	0.40	0.46	0.51	763	2290
	HI4725	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.30	825	2475
	HI4730	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	1041	3124
800	HI4710	1.45	2.17	2.89	4.34	5.78	7.23	8.67	10.12	11.56	—	99	298
	HI4715	0.35	0.52	0.69	1.04	1.38	1.73	2.08	2.42	2.77	3.12	240	722
	HI4720	<0.3	<0.3	0.34	0.52	0.69	0.86	1.03	1.20	1.38	1.55	441	1323
	HI4725	<0.3	<0.3	<0.3	<0.3	0.39	0.49	0.59	0.69	0.78	0.88	499	1498
	HI4730	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.36	0.42	0.48	0.54	621	1864
1000	HI4710	3.53	5.29	7.06	10.59	—	—	—	—	—	—	63	191
	HI4715	0.85	1.27	1.69	2.54	3.38	4.23	5.07	5.92	6.76	7.61	154	462
	HI4720	0.40	0.60	0.80	1.20	1.61	2.01	2.41	2.81	3.21	3.61	289	869
	HI4725	<0.3	0.33	0.44	0.67	0.89	1.11	1.33	1.55	1.78	2.00	342	1026
	HI4730	<0.3	<0.3	<0.3	0.41	0.55	0.69	0.83	0.97	1.10	1.24	420	1261
1200	HI4710	7.32	10.98	—	—	—	—	—	—	—	—	44	132
	HI4715	1.75	2.63	3.50	5.26	7.01	8.76	10.51	12.27	—	—	107	321
	HI4720	0.80	1.20	1.60	2.39	3.19	3.99	4.79	5.58	6.38	7.18	206	619
	HI4725	0.43	0.64	0.86	1.29	1.72	2.15	2.58	3.01	3.44	3.87	253	760
	HI4730	<0.3	0.41	0.54	0.81	1.08	1.35	1.62	1.89	2.16	2.44	307	923
1400	HI4715	3.25	4.87	6.49	9.74	—	—	—	—	—	—	78	236
	HI4720	1.48	2.22	2.96	4.43	5.91	7.39	8.87	10.34	11.82	—	151	454
	HI4725	0.78	1.17	1.56	2.33	3.11	3.89	4.67	5.45	6.23	7.00	192	578
	HI4730	0.48	0.71	0.95	1.43	1.90	2.38	2.85	3.33	3.81	4.28	237	713
1600	HI4715	5.54	8.31	11.08	—	—	—	—	—	—	—	60	180
	HI4720	2.52	3.78	5.04	7.56	10.08	12.60	—	—	—	—	116	348
	HI4725	1.30	1.95	2.60	3.89	5.19	6.49	7.79	9.09	10.39	11.68	152	457
	HI4730	0.77	1.16	1.54	2.32	3.09	3.86	4.63	5.41	6.18	6.95	190	572
1800	HI4715	8.87	—	—	—	—	—	—	—	—	—	47	142
	HI4720	4.04	6.06	8.07	12.11	—	—	—	—	—	—	91	275
	HI4725	2.08	3.12	4.16	6.24	8.32	10.40	12.48	—	—	—	120	361
	HI4730	1.23	1.85	2.47	3.70	4.93	6.17	7.40	8.63	9.86	11.10	153	461
2000	HI4720	6.15	9.23	12.31	—	—	—	—	—	—	—	74	222
	HI4725	3.17	4.75	6.34	9.51	12.68	—	—	—	—	—	97	293
	HI4730	1.87	2.81	3.75	5.62	7.49	9.37	11.24	—	—	—	126	380
2200	HI4720	9.01	—	—	—	—	—	—	—	—	—	61	184
	HI4725	4.64	6.96	9.28	—	—	—	—	—	—	—	80	242
	HI4730	2.74	4.11	5.48	8.23	10.97	—	—	—	—	—	104	314
2400	HI4725	6.57	9.86	—	—	—	—	—	—	—	—	67	203
	HI4730	3.88	5.83	7.77	11.65	—	—	—	—	—	—	88	264

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- The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperatures only. Allowable loads for impact 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.
- Fibergrate does not recommend this product for turning wheel loads. If these conditions are expected, contact Fibergrate Engineering.
- Fibergrate recommends a maximum deflection of 6.4 mm for this product under normal loading conditions. The use of L500 may be required by certain construction codes. Check code requirements to determine design criteria.
- All gratings were tested in accordance with the ANSI Standard: GRP Composites Grating Manual for Pultruded and Moulded Grating, and Stair Treads.





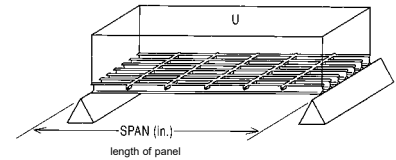
### HI47 PULTRUDED SERIES LINE LOAD TABLE - DEFLECTIONS IN MILLIMETRES

CLEAR SPAN (mm)	STYLE	LOAD (kN/m of Width)										MAXIMUM RECOM. LOAD (kN/m)	ULTIMATE CAPACITY (kN/m)
		1.5	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0		
400	HI4710	<0.3	0.42	0.84	1.67	2.51	3.34	4.18	5.01	5.85	6.69	69	207
	HI4715	<0.3	<0.3	<0.3	0.49	0.73	0.97	1.21	1.46	1.70	1.94	129	387
	HI4720	<0.3	<0.3	<0.3	<0.3	<0.3	0.38	0.47	0.57	0.66	0.76	334	1002
	HI4725	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.35	0.41	0.46	343	1029
	HI4730	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	440	1320
600	HI4710	0.39	1.31	2.62	5.23	7.85	10.46	—	—	—	—	49	148
	HI4715	<0.3	0.34	0.68	1.36	2.05	2.73	3.41	4.09	4.77	5.46	107	321
	HI4720	<0.3	<0.3	0.30	0.61	0.91	1.22	1.52	1.82	2.13	2.43	229	687
	HI4725	<0.3	<0.3	<0.3	0.36	0.54	0.72	0.90	1.07	1.25	1.43	247	742
	HI4730	<0.3	<0.3	<0.3	<0.3	0.32	0.43	0.54	0.64	0.75	0.86	312	937
800	HI4710	0.87	2.89	5.78	11.56	—	—	—	—	—	—	39	119
	HI4715	<0.3	0.69	1.38	2.77	4.15	5.54	6.92	8.31	9.69	11.08	96	289
	HI4720	<0.3	0.34	0.69	1.38	2.06	2.75	3.44	4.13	4.81	5.50	176	529
	HI4725	<0.3	<0.3	0.39	0.78	1.18	1.57	1.96	2.35	2.74	3.14	199	599
	HI4730	<0.3	<0.3	<0.3	0.48	0.72	0.96	1.20	1.44	1.68	1.92	248	745
1000	HI4710	1.69	5.65	11.29	—	—	—	—	—	—	—	31	95
	HI4715	0.41	1.35	2.70	5.41	8.11	10.82	—	—	—	—	77	231
	HI4720	<0.3	0.64	1.28	2.57	3.85	5.14	6.42	7.71	8.99	10.28	144	434
	HI4725	<0.3	0.36	0.71	1.42	2.13	2.84	3.55	4.26	4.97	5.69	171	513
	HI4730	<0.3	<0.3	0.44	0.88	1.32	1.77	2.21	2.65	3.09	3.53	210	630
1200	HI4710	2.93	9.76	—	—	—	—	—	—	—	—	26	79
	HI4715	0.70	2.34	4.67	9.35	—	—	—	—	—	—	64	192
	HI4720	0.32	1.06	2.13	4.25	6.38	8.51	10.63	—	—	—	123	371
	HI4725	<0.3	0.57	1.15	2.29	3.44	4.58	5.73	6.88	8.02	9.17	152	456
	HI4730	<0.3	0.36	0.72	1.44	2.16	2.89	3.61	4.33	5.05	5.77	184	554
1400	HI4710	4.65	—	—	—	—	—	—	—	—	—	22	68
	HI4715	1.11	3.71	7.42	—	—	—	—	—	—	—	55	165
	HI4720	0.51	1.69	3.38	6.75	10.13	—	—	—	—	—	106	318
	HI4725	<0.3	0.89	1.78	3.56	5.34	7.11	8.89	10.67	12.45	—	134	404
	HI4730	<0.3	0.54	1.09	2.18	3.26	4.35	5.44	6.53	7.61	8.70	166	499
1600	HI4710	6.94	—	—	—	—	—	—	—	—	—	19	59
	HI4715	1.66	5.54	11.08	—	—	—	—	—	—	—	48	144
	HI4720	0.76	2.52	5.04	10.08	—	—	—	—	—	—	92	278
	HI4725	0.39	1.30	2.60	5.19	7.79	10.39	—	—	—	—	122	366
	HI4730	<0.3	0.77	1.54	3.09	4.63	6.18	7.72	9.27	10.81	12.36	152	458
1800	HI4710	9.88	—	—	—	—	—	—	—	—	—	17	53
	HI4715	2.37	7.89	—	—	—	—	—	—	—	—	42	128
	HI4720	1.08	3.59	7.18	—	—	—	—	—	—	—	82	247
	HI4725	0.55	1.85	3.70	7.39	11.09	—	—	—	—	—	108	325
	HI4730	0.33	1.10	2.19	4.38	6.58	8.77	10.96	—	—	—	138	415
2000	HI4715	3.25	10.82	—	—	—	—	—	—	—	—	38	115
	HI4720	1.48	4.92	9.85	—	—	—	—	—	—	—	74	222
	HI4725	0.76	2.54	5.07	10.14	—	—	—	—	—	—	97	293
	HI4730	0.45	1.50	3.00	5.99	8.99	11.99	—	—	—	—	126	380
	HI4715	4.32	—	—	—	—	—	—	—	—	—	35	105
2200	HI4720	1.97	6.55	—	—	—	—	—	—	—	—	67	202
	HI4725	1.01	3.38	6.75	—	—	—	—	—	—	—	88	266
	HI4730	0.60	1.99	3.99	7.98	11.97	—	—	—	—	—	115	345
	HI4715	5.61	—	—	—	—	—	—	—	—	—	32	96
2400	HI4720	2.55	8.51	—	—	—	—	—	—	—	—	61	185
	HI4725	1.31	4.38	8.76	—	—	—	—	—	—	—	81	244
	HI4730	0.78	2.59	5.18	10.36	—	—	—	—	—	—	105	317
	HI4730	0.7	2.6	5.2	10.4	—	—	—	—	—	—	105	314

**NOTES:**

- The designer should not exceed the MAX RECOMMENDED LOAD at any given span. MAX RECOMMENDED LOAD represents a 3:1 factor of safety on ULTIMATE CAPACITY.
- 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.
- The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperatures only. Allowable loads for impact 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.
- Fibergrate does not recommend this product for turning wheel loads. If these conditions are expected, contact Fibergrate Engineering.
- Fibergrate recommends a maximum deflection of 6.4 mm for this product under normal loading conditions. The use of L/500 may be required by certain construction codes. Check code requirements to determine design criteria.
- All gratings were tested in accordance with the ANSI Standard: GRP Composites Grating Manual for Pultruded and Moulded Grating, and Stair Treads.

# HI58 Grating Uniform Load Chart

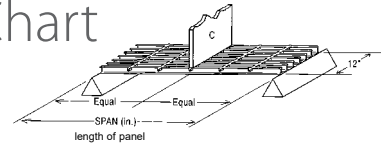


HI8 PULTRUDED SERIES UNIFORM LOAD TABLE - DEFLECTIONS IN MILLIMETRES													
CLEAR SPAN (mm)	STYLE	LOAD (kN/m <sup>2</sup> )										MAXIMUM RECOM. LOAD (kN/m <sup>2</sup> )	ULTIMATE CAPACITY (kN/m <sup>2</sup> )
		5.0	7.5	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0		
400	HI5810	<0.3	<0.3	<0.3	0.40	0.53	0.66	0.79	0.92	1.06	1.19	274	822
	HI5815	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.31	0.34	510	1532
	HI5820	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	1323	3969
	HI5825	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	1358	4075
	HI5830	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	1742	5228
600	HI5810	0.62	0.93	1.24	1.86	2.48	3.10	3.72	4.34	4.95	5.57	130	392
	HI5815	<0.3	<0.3	0.32	0.48	0.65	0.81	0.97	1.13	1.29	1.45	283	849
	HI5820	<0.3	<0.3	<0.3	<0.3	<0.3	0.36	0.43	0.50	0.58	0.65	604	1813
	HI5825	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.34	0.38	653	1960
	HI5830	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	824	2474
800	HI5810	1.82	2.74	3.65	5.47	7.30	9.12	10.95	—	—	—	78	236
	HI5815	0.44	0.66	0.87	1.31	1.75	2.19	2.62	3.06	3.50	3.93	190	572
	HI5820	<0.3	0.33	0.43	0.65	0.87	1.09	1.30	1.52	1.74	1.95	349	1047
	HI5825	<0.3	<0.3	<0.3	0.37	0.50	0.62	0.74	0.87	0.99	1.11	395	1186
	HI5830	<0.3	<0.3	<0.3	<0.3	0.30	0.38	0.45	0.53	0.60	0.68	492	1476
1000	HI5810	4.46	6.68	8.91	—	—	—	—	—	—	—	50	151
	HI5815	1.07	1.60	2.13	3.20	4.27	5.34	6.40	7.47	8.54	9.61	122	366
	HI5820	0.51	0.76	1.01	1.52	2.03	2.54	3.04	3.55	4.06	4.56	229	688
	HI5825	<0.3	0.42	0.56	0.84	1.12	1.40	1.68	1.96	2.24	2.52	271	813
	HI5830	<0.3	<0.3	0.35	0.52	0.70	0.87	1.05	1.22	1.39	1.57	332	998
1200	HI5810	9.24	—	—	—	—	—	—	—	—	—	35	105
	HI5815	2.21	3.32	4.43	6.64	8.85	11.07	—	—	—	—	84	254
	HI5820	1.01	1.51	2.01	3.02	4.03	5.04	6.04	7.05	8.06	9.07	163	490
	HI5825	0.54	0.81	1.09	1.63	2.17	2.71	3.26	3.80	4.34	4.89	200	601
	HI5830	0.34	0.51	0.68	1.03	1.37	1.71	2.05	2.39	2.73	3.08	243	731
1400	HI5815	4.10	6.15	8.20	12.30	—	—	—	—	—	—	62	186
	HI5820	1.87	2.80	3.73	5.60	7.46	9.33	11.20	—	—	—	120	360
	HI5825	0.98	1.47	1.97	2.95	3.93	4.91	5.90	6.88	7.86	8.85	152	457
	HI5830	0.60	0.90	1.20	1.80	2.40	3.00	3.61	4.21	4.81	5.41	188	564
	HI5815	6.99	10.49	—	—	—	—	—	—	—	—	47	143
1600	HI5820	3.18	4.78	6.37	9.55	—	—	—	—	—	—	91	275
	HI5825	1.64	2.46	3.28	4.92	6.56	8.20	9.84	11.48	—	—	120	362
	HI5830	0.98	1.46	1.95	2.93	3.90	4.88	5.85	6.83	7.80	8.78	151	453
	HI5815	11.20	—	—	—	—	—	—	—	—	—	37	113
	HI5820	5.10	7.65	10.20	—	—	—	—	—	—	—	72	217
1800	HI5825	2.63	3.94	5.25	7.88	10.51	—	—	—	—	—	95	286
	HI5830	1.56	2.34	3.11	4.67	6.23	7.79	9.34	10.90	12.46	—	121	365
	HI5820	7.77	11.66	—	—	—	—	—	—	—	—	58	176
	HI5825	4.00	6.01	8.01	12.01	—	—	—	—	—	—	77	232
	HI5830	2.37	3.55	4.73	7.10	9.46	11.83	—	—	—	—	100	301
2000	HI5820	11.38	—	—	—	—	—	—	—	—	—	48	145
	HI5825	5.86	8.79	11.72	—	—	—	—	—	—	—	63	191
	HI5830	3.46	5.20	6.93	10.39	—	—	—	—	—	—	83	249
2400	HI5825	8.30	12.45	—	—	—	—	—	—	—	—	53	161
	HI5830	4.91	7.36	9.81	—	—	—	—	—	—	—	69	209

**NOTES:**

- The designer should not exceed the MAX RECOMMENDED LOAD at any given span. MAX RECOMMENDED LOAD represents a 3:1 factor of safety on ULTIMATE CAPACITY.
- 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.
- The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperatures only. Allowable loads for impact 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.
- Fibergrate does not recommend this product for turning wheel loads. If these conditions are expected, contact Fibergrate Engineering.
- Fibergrate recommends a maximum deflection of 6.4 mm for this product under normal loading conditions. The use of L/500 may be required by certain construction codes. Check code requirements to determine design criteria.
- All gratings were tested in accordance with the ANSI Standard: GRP Composites Grating Manual for Pultruded and Moulded Grating, and Stair Treads.

# HI58 Grating Concentrated Line Load Chart



HI58 PULTRUDED SERIES LINE LOAD TABLE - DEFLECTIONS IN MILLIMETRES													
CLEAR SPAN (mm)	STYLE	LOAD (kN/m of Width)										MAXIMUM RECOM. LOAD (kN/m)	ULTIMATE CAPACITY (kN/m)
		1.5	5.0	10.0	20.0	30.0	40.0	50.0	60.0	70.0	80.0		
400	HI5810	<0.3	0.53	1.06	2.11	3.17	4.22	5.28	6.33	7.39	8.44	54	164
	HI5815	<0.3	<0.3	0.31	0.61	0.92	1.23	1.53	1.84	2.15	2.45	102	306
	HI5820	<0.3	<0.3	<0.3	<0.3	0.36	0.48	0.60	0.72	0.84	0.96	264	793
	HI5825	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.37	0.44	0.51	0.59	271	815
	HI5830	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.30	0.34	348	1045
600	HI5810	0.50	1.65	3.30	6.61	9.91	—	—	—	—	—	39	117
	HI5815	<0.3	0.43	0.86	1.72	2.58	3.44	4.31	5.17	6.03	6.89	84	254
	HI5820	<0.3	<0.3	0.38	0.77	1.15	1.54	1.92	2.30	2.69	3.07	181	543
	HI5825	<0.3	<0.3	<0.3	0.45	0.68	0.91	1.13	1.36	1.58	1.81	196	588
	HI5830	<0.3	<0.3	<0.3	<0.3	0.41	0.54	0.68	0.81	0.95	1.09	247	742
800	HI5810	1.09	3.65	7.30	—	—	—	—	—	—	—	31	94
	HI5815	<0.3	0.87	1.75	3.50	5.25	6.99	8.74	10.49	12.24	—	76	228
	HI5820	<0.3	0.43	0.87	1.74	2.61	3.47	4.34	5.21	6.08	6.95	139	419
	HI5825	<0.3	<0.3	0.50	0.99	1.49	1.98	2.48	2.97	3.47	3.96	158	474
	HI5830	<0.3	<0.3	0.30	0.60	0.91	1.21	1.51	1.81	2.12	2.42	196	590
1000	HI5810	2.14	7.13	—	—	—	—	—	—	—	—	25	75
	HI5815	0.51	1.71	3.42	6.83	10.25	—	—	—	—	—	61	183
	HI5820	<0.3	0.81	1.62	3.24	4.87	6.49	8.11	9.73	11.36	—	114	344
	HI5825	<0.3	0.45	0.90	1.80	2.69	3.59	4.49	5.39	6.28	7.18	135	406
	HI5830	<0.3	<0.3	0.56	1.11	1.67	2.23	2.79	3.34	3.90	4.46	166	499
1200	HI5810	3.70	12.32	—	—	—	—	—	—	—	—	21	63
	HI5815	0.89	2.95	5.90	11.80	—	—	—	—	—	—	50	152
	HI5820	0.40	1.34	2.69	5.37	8.06	10.74	—	—	—	—	98	294
	HI5825	<0.3	0.72	1.45	2.89	4.34	5.79	7.24	8.68	10.13	11.58	120	361
	HI5830	<0.3	0.46	0.91	1.82	2.73	3.65	4.56	5.47	6.38	7.29	146	438
1400	HI5810	5.87	—	—	—	—	—	—	—	—	—	18	54
	HI5815	1.41	4.69	9.37	—	—	—	—	—	—	—	43	130
	HI5820	0.64	2.13	4.27	8.53	—	—	—	—	—	—	84	252
	HI5825	0.34	1.12	2.25	4.49	6.74	8.99	11.23	—	—	—	106	320
	HI5830	<0.3	0.69	1.37	2.75	4.12	5.49	6.87	8.24	9.62	10.99	131	395
1600	HI5810	8.76	—	—	—	—	—	—	—	—	—	15	47
	HI5815	2.10	6.99	—	—	—	—	—	—	—	—	38	114
	HI5820	0.96	3.18	6.37	—	—	—	—	—	—	—	73	220
	HI5825	0.49	1.64	3.28	6.56	9.84	—	—	—	—	—	96	290
	HI5830	<0.3	0.98	1.95	3.90	5.85	7.80	9.76	11.71	—	—	120	362
1800	HI5810	12.47	—	—	—	—	—	—	—	—	—	14	42
	HI5815	2.99	9.96	—	—	—	—	—	—	—	—	33	101
	HI5820	1.36	4.53	9.07	—	—	—	—	—	—	—	65	196
	HI5825	0.70	2.34	4.67	9.34	—	—	—	—	—	—	85	257
	HI5830	0.42	1.38	2.77	5.54	8.31	11.08	—	—	—	—	109	328
2000	HI5815	4.10	—	—	—	—	—	—	—	—	—	30	91
	HI5820	1.87	6.22	12.44	—	—	—	—	—	—	—	58	176
	HI5825	0.96	3.20	6.41	—	—	—	—	—	—	—	77	232
	HI5830	0.57	1.89	3.79	7.57	11.36	—	—	—	—	—	100	301
	HI5815	5.45	—	—	—	—	—	—	—	—	—	27	83
2200	HI5820	2.48	8.28	—	—	—	—	—	—	—	—	53	160
	HI5825	1.28	4.26	8.53	—	—	—	—	—	—	—	70	210
	HI5830	0.76	2.52	5.04	10.08	—	—	—	—	—	—	91	273
	HI5815	7.08	—	—	—	—	—	—	—	—	—	25	76
2400	HI5820	3.22	10.74	—	—	—	—	—	—	—	—	49	147
	HI5825	1.66	5.53	11.07	—	—	—	—	—	—	—	64	193
	HI5830	0.98	3.27	6.54	—	—	—	—	—	—	—	83	251
	HI4730	0.7	2.6	5.2	10.4	—	—	—	—	—	—	105	314

**NOTES:**

- The designer should not exceed the MAX RECOMMENDED LOAD at any given span. MAX RECOMMENDED LOAD represents a 3:1 factor of safety on ULTIMATE CAPACITY.
- 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.
- The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperatures only. Allowable loads for impact 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.
- Fibergrate does not recommend this product for turning wheel loads. If these conditions are expected, contact Fibergrate Engineering.
- Fibergrate recommends a maximum deflection of 6.4 mm for this product under normal loading conditions. The use of L/500 may be required by certain construction codes. Check code requirements to determine design criteria.
- All gratings were tested in accordance with the ANSI Standard: GRP Composites Grating Manual for Pultruded and Moulded Grating, and Stair Treads.

# Safe-T-Span® Pedestrian Grating Details

Designed specifically for pedestrian walkways, Fibergrate's Safe-T-Span pultruded pedestrian grating is ideal for applications where a slip-resistant, corrosion-resistant, durable, lightweight material is required. Safe-T-Span pedestrian pultruded grating is available in 25mm and 38mm depths and in several configurations and panel sizes. Safe-T-Span 25mm deep pedestrian grating is designed for access areas and walkways where pedestrian traffic is the heaviest load. Pedestrian 38mm deep grating is approximately three times stiffer than the 25mm deep version and is used for applications where wider spans (up to 1829mm) or lower deflection criteria are required.



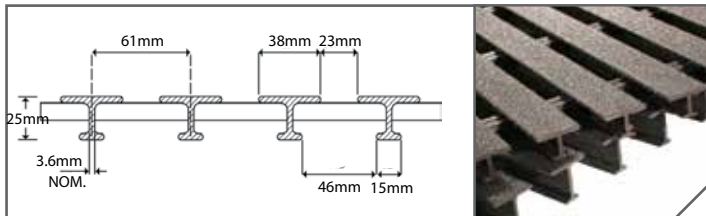
Pontoon Boardwalk in Portland, Oregon

## Grating Details

Refer to chart on page 4 for Grating Selection.

### 25mm Deep T3810

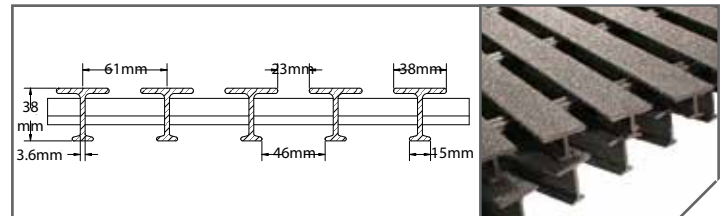
# of Bars/m of Width	Load Bar Depth	Open Area	Load Bar Centres	Approximate Weight
16	25mm	38%	61mm	9.3 kg/m <sup>2</sup>



Section Properties per m of Width:  $A=3.73 \times 10^3 \text{ mm}^2$   $I=3.14 \times 10^9 \text{ mm}^4$   $St=3.49 \times 10^4 \text{ mm}^3$   $Sb=1.88 \times 10^4 \text{ mm}^3$   
Average EI = 14447 kN-mm<sup>2</sup> (SPAN ≥ 610mm)

### 38mm Deep T3815

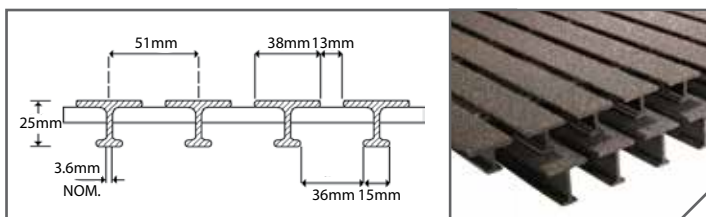
# of Bars/m of Width	Load Bar Depth	Open Area	Load Bar Centres	Approximate Weight
16	38mm	38%	61mm	13 kg/m <sup>2</sup>



Section Properties per m of Width:  $A=4.83 \times 10^3 \text{ mm}^2$   $I=9.01 \times 10^9 \text{ mm}^4$   $St=6.61 \times 10^4 \text{ mm}^3$   $Sb=3.71 \times 10^4 \text{ mm}^3$   
Average EI = 29570 kN-mm<sup>2</sup> (SPAN ≥ 610mm)

### 25mm Deep T2510 (ADA Compliant)

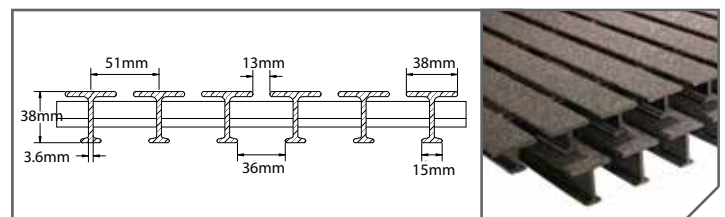
# of Bars/m of Width	Load Bar Depth	Open Area	Load Bar Centres	Approximate Weight
20	25mm	25%	51mm	12 kg/m <sup>2</sup>



Section Properties per m of Width:  $A=4.47 \times 10^3 \text{ mm}^2$   $I=3.69 \times 10^9 \text{ mm}^4$   $St=4.25 \times 10^4 \text{ mm}^3$   $Sb=2.26 \times 10^4 \text{ mm}^3$   
Average EI = 12110 kN-mm<sup>2</sup> (SPAN ≥ 610mm)

### 38mm Deep T2515 (ADA Compliant)

# of Bars/m of Width	Load Bar Depth	Open Area	Load Bar Centres	Approximate Weight
20	38mm	25%	51mm	14 kg/m <sup>2</sup>



Section Properties per m of Width:  $A=5.78 \times 10^3 \text{ mm}^2$   $I=1.09 \times 10^{10} \text{ mm}^4$   $St=7.90 \times 10^4 \text{ mm}^3$   $Sb=4.46 \times 10^4 \text{ mm}^3$   
Average EI = 35773 kN-mm<sup>2</sup> (SPAN ≥ 610mm)



# Aqua Grate® Pedestrian Grating Details

Aqua Grate T1210 and T1215 pultruded pedestrian grating is specifically engineered to withstand the corrosive conditions associated with recreational and general marine applications and to meet ADA guidelines. With its nominal 6.4mm space between the 38mm wide bearing bars, Aqua Grate offers optimum comfort and safety for bathers walking with bare feet — a must in high-traffic, public recreational areas. Aqua Grate grating has a unique combination of corrosion resistance and lightweight, which provides easy, inexpensive installations in facilities such as swimming pools, water parks, marinas, and piers.



Boat dock on Horseshoe Lake in Haliburton, Ontario.

Aqua Grate is available in various lengths and widths, making it suitable for a range of waterfront and recreational applications. The fine grit surface of Aqua Grate provides a high level of slip resistance, yet at the same time, offers a comfortable barefoot walking surface. Protection against long-term UV exposure is provided by a synthetic surfacing veil and UV inhibitors in the resin formulation. Whether subjected to chlorinated water in public and private pools or saltwater environments found in marine and waterfront applications, Aqua Grate will provide years of low-cost, low-maintenance service.



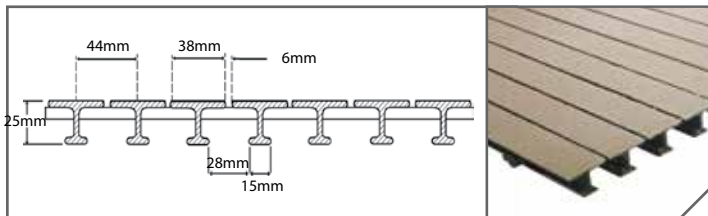
Corinthian Yacht Club Harbor in San Francisco, California.

## Grating Details

Refer to chart on page 4 for Grating Selection.

### 25mm Deep T1210 (ADA Compliant)

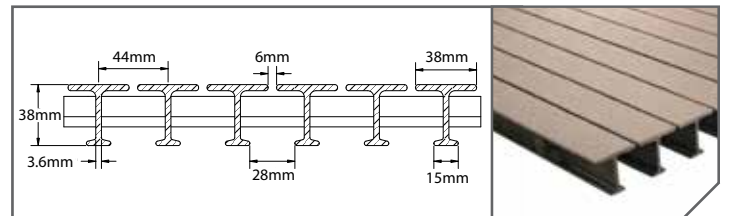
# of Bars/ m of Width	Load Bar Depth	Open Area	Load Bar Centres	Approximate Weight
23	25mm	12%	44mm	13 kg/m <sup>2</sup>



Section Properties per m of Width: A=5.21x10<sup>3</sup> mm<sup>2</sup> I=4.37x10<sup>5</sup> mm<sup>4</sup> St=5.05x10<sup>4</sup> mm<sup>3</sup> Sb=2.63x10<sup>4</sup> IN<sup>3</sup>  
Average EI = 14342 kN-mm<sup>2</sup> (SPAN ≥ 610mm)

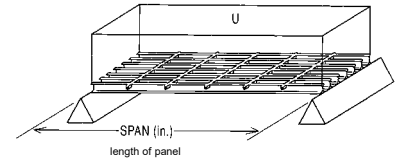
### 38mm Deep T1215 (ADA Compliant)

# of Bars/ m of Width	Load Bar Depth	Open Area	Load Bar Centres	Approximate Weight
23	38mm	12%	44mm	15 kg/m <sup>2</sup>



Section Properties per m of Width: A=6.75x10<sup>3</sup> mm<sup>2</sup> I=1.27x10<sup>6</sup> mm<sup>4</sup> St=9.25x10<sup>4</sup> mm<sup>3</sup> Sb=5.22x10<sup>4</sup> mm<sup>3</sup>  
Average EI = 41680 kN-mm<sup>2</sup> (SPAN ≥ 610mm)

# Pedestrian Series Uniform Load Chart



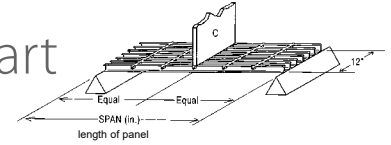
PEDESTRIAN SERIES SAFE-T-SPAN UNIFORM LOAD TABLE - DEFLECTIONS IN MILLIMETRES										
CLEAR SPAN (mm)	STYLE	LOAD (kN/m <sup>2</sup> )							MAXIMUM RECOMMENDED LOAD (kN/m <sup>2</sup> )	ULTIMATE CAPACITY (kN/m <sup>2</sup> )
		3.0	5.0	10.0	20.0	30.0	50.0	90.0		
400	T3810	< 0.3	< 0.3	0.4	0.8	1.3	2.1	3.9	100	200
	T3815	< 0.3	< 0.3	< 0.3	< 0.3	0.3	0.6	1.1	156	313
	T2510	< 0.3	< 0.3	0.3	0.7	1.1	1.9	3.4	120	240
	T2515	< 0.3	< 0.3	< 0.3	0.4	0.6	0.9	1.6	189	378
	T1210	< 0.3	< 0.3	< 0.3	0.6	0.9	1.5	2.7	168	336
	T1215	< 0.3	< 0.3	< 0.3	0.3	0.5	0.7	1.2	205	410
600	T3810	0.5	0.8	1.7	3.4	5.0	8.4		66	133
	T3815	< 0.3	< 0.3	0.6	1.2	1.8	3.1	5.6	102	204
	T2510	0.4	0.7	1.4	2.8	4.1	6.9	12.4	79	159
	T2515	< 0.3	< 0.3	0.5	1.1	1.6	2.7	4.9	123	246
	T1210	0.3	0.6	1.2	2.4	3.6	6.1	11.0	111	223
	T1215	< 0.3	< 0.3	0.5	0.9	1.3	2.2	4.0	147	293
800	T3810	1.5	2.5	5.1	10.2	—	—	—	50	99
	T3815	0.6	0.9	1.8	3.7	5.5	9.1	—	76	153
	T2510	1.3	2.1	4.3	8.5	—	—	—	60	119
	T2515	0.4	0.7	1.4	2.9	4.3	7.1	—	90	181
	T1210	1.1	1.8	3.7	7.3	11.0	—	—	83	167
	T1215	0.4	0.7	1.3	2.5	3.8	6.2	11.2	108	216
1000	T3810	3.7	6.1	12.3	—	—	—	—	35	70
	T3815	1.3	2.1	4.2	8.3	12.4	—	—	60	120
	T2510	3.1	5.1	10.3	—	—	—	—	42	84
	T2515	1.1	1.7	3.4	6.8	10.2	—	—	71	142
	T1210	2.6	4.4	8.8	—	—	—	—	59	117
	T1215	0.9	1.5	3.0	6.0	8.9	—	—	81	162
1200	T3810	7.5	12.5	—	—	—	—	—	24	48
	T3815	2.5	4.1	8.2	—	—	—	—	43	86
	T2510	6.3	10.5	—	—	—	—	—	28	57
	T2515	2.1	3.5	7.0	—	—	—	—	53	106
	T1210	5.4	9.0	—	—	—	—	—	40	80
	T1215	1.8	3.0	6.0	12.1	—	—	—	60	120
1400	T3815	4.5	7.5	—	—	—	—	—	29	57
	T2515	3.7	6.3	—	—	—	—	—	36	71
	T1215	3.2	5.4	10.8	—	—	—	—	43	86
1600	T3815	7.8	—	—	—	—	—	—	31	62
	T2515	6.3	10.6	—	—	—	—	—	26	52
	T1215	5.5	9.0	—	—	—	—	—	32	64
1800	T3815	13.0	—	—	—	—	—	—	75	151
	T2515	10.2	—	—	—	—	—	—	40	81
	T1215	8.9	—	—	—	—	—	—	31	62

**IMPORTANT:** Installation should cater to fully supported abutments of grating panels. Otherwise, higher deflection values may be experienced, and tripping hazards may occur. Stub bars should not be less than 25mm in clip attachment areas. Safe-T-Span pedestrian grating load bars at platform edges should be fully supported.

**NOTES:**

- The designer should not exceed the MAX RECOMMENDED LOAD at any given span. MAX RECOMMENDED LOAD represents a 2:1 factor of safety on ULTIMATE CAPACITY.
- 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.
- Walking loads, typically 244-317 kNm<sup>2</sup> maximum are recommended for pedestrian traffic. Deflections for worker comfort are typically limited to the lesser of 9.5mm or CLEAR SPAN divided by 125; for a firmer feel, limit deflection to the lesser of 6.4mm or CLEAR SPAN divided by 200.
- 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 the ASCE Structural Plastics Design Manual.
- All gratings were tested in accordance with the ANSI Standard: GRP Composites Grating Manual for Pultruded and Moulded Grating, and Stair Treads.
- Gratings in this table are not rated for motorized vehicle traffic. For these applications, please select appropriate High Load Capacity grating.

# Pedestrian Series Concentrated Line Load Chart



**PEDESTRIAN SERIES SAFE-T-SPAN CONCENTRATED LINE LOAD TABLE - DEFLECTIONS IN MILLIMETRES**

CLEAR SPAN (mm)	STYLE	LOAD (kN/m of Width)							MAXIMUM RECOMMENDED LOAD (kN/m)	ULTIMATE CAPACITY (kN/m)
		0.7	1.5	5.0	10.0	15.0	20.0	30.0		
400	T3810	< 0.3	< 0.3	0.8	1.6	2.4	3.2	4.8	39	78
	T3815	< 0.3	< 0.3	< 0.3	0.6	1.2	1.9	3.2	60	121
	T2510	< 0.3	< 0.3	0.7	2.2	3.6	5.0	7.9	47	94
	T2515	< 0.3	< 0.3	< 0.3	0.5	0.8	1.1	1.6	72	145
	T1210	< 0.3	< 0.3	0.6	1.2	1.7	2.3	3.4	66	131
	T1215	< 0.3	< 0.3	< 0.3	0.5	0.7	1.0	1.4	85	169
600	T3810	0.3	0.7	2.3	4.5	6.8	9.1	—	30	60
	T3815	< 0.3	< 0.3	0.4	1.6	2.8	3.9	6.2	51	101
	T2510	1.0	1.1	1.7	2.6	3.4	4.2	5.9	36	72
	T2515	< 0.3	< 0.3	0.7	1.4	2.1	2.8	4.2	61	121
	T1210	< 0.3	0.5	1.6	3.2	4.8	6.4	9.6	50	100
	T1215	< 0.3	< 0.3	0.6	1.2	1.8	2.4	3.6	71	142
800	T3810	0.7	1.5	5.1	10.2	—	—	—	21	42
	T3815	< 0.3	< 0.3	1.4	3.5	5.6	7.7	11.8	39	79
	T2510	2.0	2.4	4.0	6.3	8.6	10.8	—	25	50
	T2515	< 0.3	0.4	1.5	2.9	4.4	5.9	8.9	47	94
	T1210	0.5	1.1	3.7	7.3	10.9	—	—	35	71
	T1215	< 0.3	0.4	1.2	2.5	3.7	5.0	7.5	55	110
1000	T3810	1.4	3.0	9.8	—	—	—	—	17	35
	T3815	< 0.3	0.4	3.0	6.5	10.1	—	—	30	60
	T2510	1.3	2.6	8.2	—	—	—	—	21	41
	T2515	0.4	0.8	2.8	5.5	8.2	11.0	—	36	71
	T1210	1.0	2.1	7.0	—	—	—	—	29	58
	T1215	0.3	0.7	2.3	4.7	7.0	9.3	—	42	83
1200	T3810	2.3	5.0	—	—	—	—	—	15	29
	T3815	< 0.3	1.1	5.2	11.0	—	—	—	24	47
	T2510	1.7	4.0	—	—	—	—	—	17	35
	T2515	0.7	1.4	4.6	9.2	—	—	—	28	57
	T1210	1.6	3.5	12.0	—	—	—	—	25	49
	T1215	0.6	1.2	3.9	7.9	11.8	—	—	33	66
1400	T3815	0.5	1.9	8.2	—	—	—	—	21	42
	T2515	1.0	2.2	7.2	—	—	—	—	25	50
	T1215	0.8	1.8	6.1	12.3	—	—	—	30	59
1600	T3815	1.0	3.1	12.2	—	—	—	—	20	40
	T2515	1.5	3.2	10.6	—	—	—	—	24	48
	T1215	1.2	2.7	9.1	—	—	—	—	28	56
1800	T3815	1.8	4.7	—	—	—	—	—	17	33
	T2515	2.1	4.5	—	—	—	—	—	20	40
	T1215	1.8	3.8	—	—	—	—	—	22	46

**IMPORTANT:** Installation should provide for fully supported abutments of grating panels. Otherwise higher deflection values may be experienced, and tripping hazards may occur. Stub bars should not be less than 25mm in clip attachment areas. Safe-T-Span pedestrian grating load bars at platform edges should be fully supported.

**NOTES:**

- The designer should not exceed the MAX RECOMMENDED LOAD at any given span. MAX RECOMMENDED LOAD represents a 2:1 factor of safety on ULTIMATE CAPACITY.
- 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.
- Walking loads, typically 244-317 kNm<sup>2</sup> maximum are recommended for pedestrian traffic. Deflections for worker comfort are typically limited to the lesser of 9.5mm or CLEAR SPAN divided by 125; for a firmer feel, limit deflection to the lesser of 6.4mm or CLEAR SPAN divided by 200.
- 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 the ASCE Structural Plastics Design Manual.
- All gratings were tested in accordance with the ANSI Standard: GRP Composites Grating Manual for Pultruded and Moulded Grating, and Stair Treads.
- Gratings in this table are not rated for motorized vehicle traffic. For these applications, please select appropriate High Load Capacity grating.

# Custom Pultruded Gratings

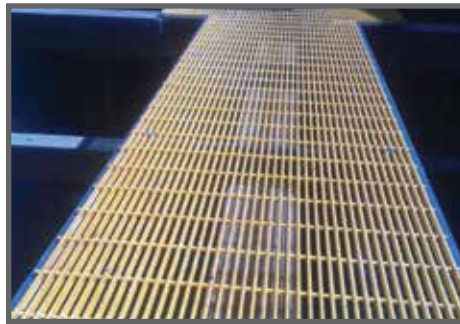
Fibergrate Composite Structures has developed a number of specialty pultruded gratings to meet specific requirements brought to us by our customers. These grating solutions were developed in partnerships with our customers, capitalizing on Fibergrate's 20+ years of pultruded experience and the customers' intimate knowledge of their markets and applications. Fibergrate continues to work closely with our customers on a daily basis to provide the products required for new applications, so please call us about your project today!

For more information about all our custom pultruded gratings with unique depths and open areas, including details and load charts visit [fibergrate.uk](http://fibergrate.uk) > [Products](#) > [Pultruded Grating](#) > [Custom Pultruded Gratings](#). Two of our more popular custom gratings include SI and WT series pultruded products.

## SI Pultruded Series



*HVAC Screening*



*Walkway Grating*



*Dock & Marine Gangway*

The SI Series of grating is available in open areas of 60%, 73% and 83%, providing excellent airflow and light transmission. The profile of the SI Series has an appearance similar to metal grating. It is useful in areas where a close match to a steel or an aluminium profile for an existing installation is needed. SI sections with bonded rod crossbars are suitable for use in low pedestrian traffic areas.

## WT Pultruded Series



*WT1815 Grating (18% open area with 38mm of depth)*

The WT Pedestrian Series is offered in a variety of sizes with open areas including 35%, 18% or even 0% and depths of 25mm or 38mm. The T-shaped top of the load bar provides maximum surface area underfoot, thus the most comfortable walking surface and a smoother surface for two-wheel moving equipment. These designs are excellent for areas with high traffic and light hand trucks or wheeled carts. WT00 provides a cost effective solid deck surface.



# Safe-T-Span® Pultruded Stair Treads

## Safe-T-Span® Industrial & Pedestrian Stair Treads

Slip-resistant and non-conductive Safe-T-Span pultruded stair treads offer the same level of safety, strength, and corrosion resistance as other Fibergate pultruded GRP products. Designed for use in applications



Industrial Stair Tread

where wider support spans are required, Safe-T-Span pultruded stair treads for industrial and pedestrian applications are available in 25mm, 38mm, and 51mm depths in the ISOFR and VEFR resin systems. Fibergate's I6015 and I4015 38mm deep treads are also available in the phenolic resin system.



## Load and Deflection Information

TREAD TYPE	Load (kN)	SPAN (mm)	500	600	800	1000	1200
		SPAN/150	3.3	4.0	5.3	6.7	8.0
25mm Deep, I6010 (60% Open)	1	Deflections in millimetres	0.5	1.8	4.3	6.9	9.5
	2		1.0	3.5	8.7	—	—
38mm Deep, I6015 (60% Open)	1		< 0.3	0.5	1.2	1.9	2.6
	2		< 0.3	0.9	2.4	3.8	5.2
51mm Deep, T5020 (50% Open)	1		< 0.3	0.4	0.9	1.3	1.8
	2		0.4	0.8	1.8	2.7	3.6
25mm Deep, I4010 (40% Open)	1		< 0.3	1.2	3.1	4.9	6.8
	2		0.7	2.6	6.2	9.9	—
38mm Deep, I4015 (40% Open)	1		< 0.3	0.3	0.8	1.3	1.8
	2		< 0.3	0.7	1.6	2.5	3.4
25mm Deep, T3810 (38% Open)	1		1.8	3.3	6.4	9.5	12.6
	2		3.1	5.6	10.5	—	—
38mm Deep, T3815 (38% Open)	1		1.5	2.8	5.4	8.0	10.5
	2		3.1	4.9	8.7	12.4	—
51mm Deep, T3320 (33% Open)	1		< 0.3	< 0.3	0.7	1.0	1.4
	2		< 0.3	0.6	1.3	2.0	2.7
25mm Deep, T2510 (25% Open)	1		1.3	2.7	5.5	8.3	11.1
	2		3.0	5.1	9.3	—	—
38mm Deep, T2515 (25% Open)	1		0.9	1.4	2.3	3.2	4.1
	2		1.5	2.4	4.1	5.9	7.7
25mm Deep, T1210 (12% Open)	1	1.5	2.8	5.4	8.0	10.5	
	2	3.1	4.9	8.7	12.4	—	
38mm Deep, T1215 (12% Open)	1	1.1	1.5	2.3	3.1	3.9	
	2	1.8	2.6	4.3	5.9	7.6	

**NOTES:**

1. It is suggested that stair tread deflection be limited to SPAN/150. Deflections based on this ratio are provided at the top of the table.
2. Deflection in the body of the table are for concentrated loads of both 1 kN and 2 kN. A concentrated load is applied at the centre of the tread, over a width of 102mm and a length of 152mm, starting at the nosing edge to simulate the landing of a foot.
3. Deflections are not appreciably different due to stair tread depth. Actual depth will vary depending on stair tread configuration.

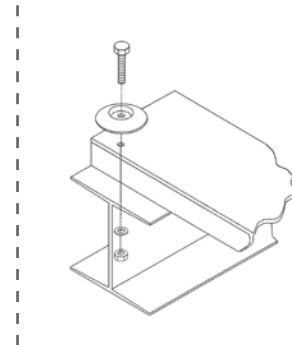
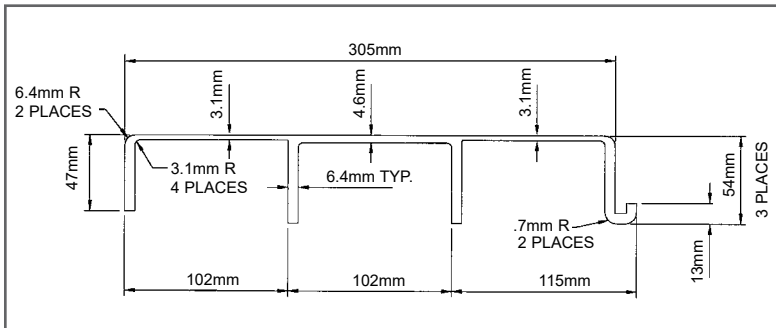


# Dynadeck® Interlocking Flooring



Used in a wide range of industrial and commercial applications, Dynadeck® interlocking pultruded flooring panels provide a unique combination of durability, easy install, and low maintenance. Dynadeck is designed to be easily installed with sections snapping together more than three times faster than conventional flooring, and can be disassembled for transporting. Dynadeck is available with a smooth solid top and is ADA compliant. It can also be gritted to provide a slip-resistant surface.

## Standard Smooth Solid Details



Type W Hold-Down Clips are recommended to secure Dynadeck panels to structural supports in order to eliminate potential damage to the panel.

## Load / Deflection Information

SPAN	U	5.0 kN/m <sup>2</sup>	10.0 kN/m <sup>2</sup>	15 kN/m <sup>2</sup>	25 kN/m <sup>2</sup>	50 kN/m <sup>2</sup>	90 kN/m <sup>2</sup>
	C	0.5 kN	1.0 kN	1.5 kN	2.5 kN	5.0 kN	9.0 kN
600mm	ΔU	< 0.3	0.5	0.8	1.3	2.5	4.5
	ΔC	< 0.3	0.4	0.7	1.1	2.2	4.0
800mm	ΔU	0.5	1.1	1.6	2.7	5.5	9.9
	ΔC	0.3	0.7	1.1	1.9	3.8	6.8
1000mm	ΔU	1.3	2.7	4.0	6.7	13.3	23.9
	ΔC	0.7	1.4	2.1	3.5	7.1	12.7
1400mm	ΔU	5.1	10.2	15.3	25.5	—	—
	ΔC	1.8	3.8	5.8	9.7	19.5	35.2
1800mm	ΔU	14.0	28.0	—	—	—	—
	ΔC	4.0	8.2	12.3	20.5	—	—
1800mm	ΔU	.562	1.124	1.686	—	—	—
	ΔC	.151	.302	.453	.755	1.510	—

U – Uniform Load (kN/m<sup>2</sup>)      C – Concentrated Load (kN at centre of span)  
 ΔU – Uniform Load Deflection (mm)      ΔC – Concentrated Load Deflection (mm)

## Applications

- Cooling Tower Fan Decks
- Cooling Tower Access Walkways
- Roofing Walkways
- Odour Containment Trench Covers
- Offshore Platform Protective Walls

## Dynadeck® Resins

- ISOFR - Dark Grey (Standard),
- Flame Spread of 25 or Less
- VEFR - Beige, Flame Spread of 25 or Less

## Dynadeck® Surfaces

- Smooth Solid
- Optional Gritted Solid

# Chemical Resistance Guide

Chemical Environment	% Concentration	Temp °C	Fibergate® Moulded				Safe-T-Span® Pultruded	
			Vi-Corr®	Corvex®	FGI-AM®	XFR	VEFR	ISOFR
Acetic Acid	50	MAX	C	C	C	I	C	C
Acetone	100	23.8	S	I	I	I	I	N
Alcohols	100	48.8	C	I	I	S	I	I
Alum	ALL	MAX	C	C	C	C	C	C
Aluminium Chloride	ALL	MAX	C	C	C	C	C	C
Aluminium Fluoride	20	23.8	C	I	I	I	I	I
Ammonium Hydroxide	30	23.8	C	N	N	N	I	N
Ammonium Salts-Neutral	ALL	48.8	C	C	C	S	C	S
Ammonium Salts-Aggressive	ALL	23.8	S	I	I	I	T	N
Aromatic Solvents	ALL	23.8	T	N	N	N	N	N
Barium Salts	ALL	MAX	C	C	C	C	C	C
Benzene	100	60	I	I	I	I	I	N
Black Liquor (Pulp Mill)	ALL	MAX	C	I	I	I	I	N
Bleach Liquor (Pulp Mill)	ALL	MAX	C	I	I	N	I	N
Calcium Hydroxide	25	MAX	C	S	S	I	S	I
Calcium Hypochlorite	ALL	MAX	C	I	I	I	I	N
Calcium Salts	ALL	MAX	C	C	C	C	C	C
Carbon Tetrachloride	100	23.8	C	I	I	S	S	N
Chlorinated Hydrocarbons	100	23.8	T	T	T	N	T	T
Chlorine Dioxide	SAT	60	C	N	N	N	S	N
Chlorine Water	SAT	48.8	C	I	I	I	I	N
Chlorine, Wet	SAT	MAX	C	N	N	N	N	N
Chlorobenzene	100	23.8	S	N	N	N	N	N
Chlorobenzene	ALL	Up to 37.7	C	N	N	N	N	N
Chloroform	100	23.8	N	N	N	N	N	N
Chromic Acid	50	60	S	S	S	N	I	N
Citric Acid	ALL	MAX	C	C	C	C	C	C
Copper Cyanide Plating	ALL	51.6	C	S	S	N	S	I
Copper Salts	ALL	MAX	C	C	C	C	C	C
Crude Oil (Sweet or Sour)	ALL	MAX	C	C	C	C	C	C
Dichlorobenzene	100	23.8	T	N	N	N	N	N
Ethers	100	23.8	T	N	N	N	N	N
Ferric Chloride	100	MAX	C	C	C	C	C	C
Ferric Salts	ALL	MAX	C	C	C	C	C	C
Fluoride Salts+HCl	ALL	23.8	C	S	S	I	I	N
Fluosilicic Acid	10	23.8	C	S	S	S	S	I
Formaldehyde	37	65.5	C	I	I	I	S	I
Formic Acid	25	37.7	C	S	S	I	S	I
Fuel (Diesel, Jet, Gasoline)	ALL	37.7	C	C	C	C	C	C
Glycerine	100	MAX	C	C	C	C	C	C
Green Liquor (Pulp Mill)	ALL	MAX	C	N	N	N	I	N
Hydrobromic Acid	48	MAX	S	S	S	I	I	N
Hydrochloric Acid	10	MAX	C	S	S	C	S	S
Hydrochloric Acid	30	MAX	C	S	S	I	I	I
Hydrochloric Acid (concentrated)	ALL	Up to 82.2	I	N	N	N	N	N
Hydrocyanic Acid	ALL	MAX	C	I	I	I	S	I
Hydrofluoric Acid	20	23.8	S	N	N	N	N	N
Hydrogen Peroxide	30	23.8	C	N	N	I	S	N
Lactic Acid	100	MAX	C	C	C	C	C	C
Lime Slurry	SAT	MAX	C	C	C	C	C	C
Lithium Chloride	SAT	MAX	N	N	N	N	N	N
Lithium Salts	ALL	MAX	C	C	C	C	T	T
Magnesium Salts	ALL	MAX	C	C	C	C	C	C
Maleic Acid	100	MAX	C	S	S	C	S	I
Mercury Chloride	100	MAX	C	C	C	C	C	C
Nickel Salts	ALL	MAX	C	C	C	C	C	C
Nitric Acid	20	48.8	C	S	S	I	I	I
Nitric Acid	35	37.7	C	N	N	N	N	N
Nitric Acid	40	Ambient	I	N	N	N	N	N
Nitric, Hydrofluoric	20:2	23.8	I	N	N	N	N	N
Nitrous Acid	10	23.8	C	C	C	C	C	C
Ozone for Sewage Treatment		37.7	C	C	C	C	C	C
Perchloroethylene	100	23.8	S	N	N	I	I	N
Phenol	10	23.8	C	N	N	N	I	N
Phenol	88	Ambient	S	N	N	N	N	N
Phosphoric Acid	85	MAX	C	C	C	C	C	S
Phosphoric Acid, Super	115	MAX	C	I	I	S	S	N
Potassium Hydroxide	10	48.8	C	I	I	N	S	N
Potassium Salts	ALL	MAX	C	C	C	C	C	C
Silver Nitrate	100	MAX	C	C	C	C	C	C
Sodium Cyanide	ALL	23.8	C	I	I	I	S	I
Sodium Hydroxide	50	MAX	C	I	I	N	I	N
Sodium Hydroxide	10	MAX	C	N	N	N	N	N
Sodium Hypochlorite (Stable)	10	37.7	C	S	S	S	S	I
Sodium Salts-Neutral	ALL	MAX	C	C	C	C	C	C
Sodium Salts-Aggressive	ALL	23.8	S	I	I	I	T	N
Sulphur Dioxide	SAT	MAX	C	S	S	S	S	S
Sulphuric Acid	25	MAX	C	S	S	S	S	I
Sulphuric Acid	50	MAX	C	S	S	S	S	N
Sulphuric Acid	75	37.7	C	I	I	I	I	N
Toluene	100	48.8	S	I	I	N	I	N
Trichloroethane1,1,1	ALL	23.8	S	I	I	I	I	N
Trisodium Phosphate	50	MAX	C	I	I	I	I	N
Water (Fresh, Salt, Moderate D.I.)	100	MAX	C	C	C	C	C	C
Wet Chlorine/Hydrochloric Acid	10-20	Up to 176.6	C	N	N	N	N	N
White Liquor (Pulp Mill)	ALL	MAX	C	I	I	I	S	N
Zinc Chloride Plating	ALL	23.8	C	S	S	S	S	N
Zinc Salts	100	MAX	C	C	C	C	C	C

C - Continuous exposure of the grating to the Chemical Environment listed at the temperature listed.

S - Frequent exposure of the grating to splashes and spills from the Chemical Environment listed with that environment at the temperature listed.

I - Infrequent exposure of the grating to splashes and spills from the Chemical Environment listed with that environment at the temperature listed and the spill immediately cleaned up or washed from the grating.

N - Not recommended for the concentrations and temperatures listed.

T - Test

Consult Fibergate for corrosion recommendations at concentrations, temperatures or chemicals not listed in this guide.

MAX TEMP is 82.2°C for ViCorr and Pultruded VEFR; 65.5°C for Corvex, FGI-AM, XFR, and Pultruded ISOFR.

The information in this Corrosion Guide is correct to the best of Fibergate's knowledge. It is based on extensive experience with GRP grating in corrosive applications. Because actual use conditions differ and mixtures of corrosives will occur in service, the end user must test for use under actual conditions. Fibergate's responsibility for claims arising from breach of warranty, negligence or otherwise is limited to the purchase price of the material sold by Fibergate. Test coupons are available upon specific request.

# Fibergrate Products & Services

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## Fibergrate® Moulded Grating

Fibergrate® moulded gratings are designed to provide the ultimate in reliable performance, even in the most demanding conditions. Fibergrate offers the widest selection in the market with multiple resins and more than twenty grating configurations available in many panel sizes and surfaces.



## Safe-T-Span® Pultruded Industrial & Pedestrian Gratings

Combining corrosion resistance, long-life and low maintenance, Safe-T-Span® provides unidirectional strength for industrial and pedestrian pultruded grating applications.



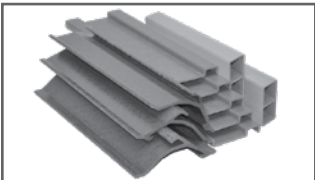
## Dynaform® Structural Shapes

Fibergrate offers a wide range of standard Dynaform® pultruded structural profiles for industrial and commercial use, including I-beams, wide flange beams, round and square tubes, bars, rods, channels, leg angles, and plate.



## Dynarail® & DynaRound™ Guardrail, Handrail & Ladder

Easily assembled from durable components or engineered and prefabricated to your specifications, Dynarail square tube, DynaRound round tube railing systems, and Dynarail safety ladder systems meet or exceed OSHA, and strict building code requirements for safety and design.



## Custom Composite Solutions

Combining Fibergrate's design, manufacturing and fabrication services allows Fibergrate to offer custom composite solutions to meet our client's specific requirements. Either through unique pultruded profiles or custom open moulding, Fibergrate can help bring your vision to reality.



## Design & Fabrication Services

Combining engineering expertise with an understanding of GRP applications, Fibergrate provides turnkey design and fabrication of GRP structures, including platforms, catwalks, stairways, railings, and equipment support structures.



## Worldwide Sales & Distribution Network

Whether a customer requires a platform in a mine in South Africa to grating on an oil rig in the North Sea, or walkways in a Wisconsin cheese plant to railings at a water treatment facility in Brazil; Fibergrate has sales and service locations throughout the world to meet the needs and exceed the expectations of any customer.

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