

# Fiberglass Pultruded Grating *SI Units*

## Fibergrate Composite Structures

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 labor 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 (HI) 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, check out the Fibergrate website under Pultruded Products for custom pultruded market gratings.

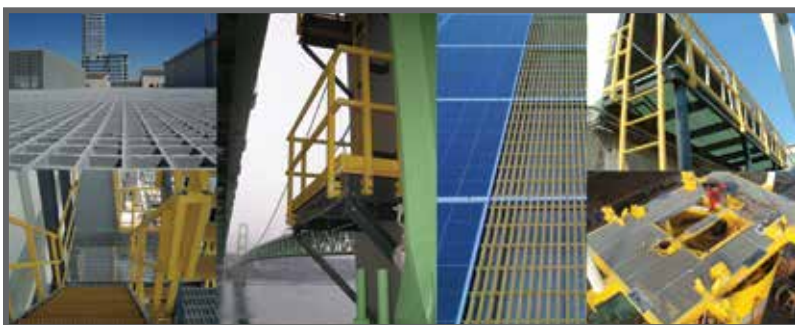
## Safe-T-Span® Grating Resin Systems

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

**VEFR:** Vinyl ester resin system with a flame spread of 25 or less for dependable 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) - designed primarily for the offshore industry. (Coast Guard approved for Level 2 & 3 performance criteria). All Safe-T-Span phenolic grating requiring ASTM F3059-18 approval is inspected independently at the production stage to ensure quality control standards are followed.

## 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 FRP?



**Corrosion Resistant:** Fibergrate® pultruded fiberglass products are known for their ability to provide corrosion resistance in the harshest environments and chemical exposures.



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



**Low Maintenance:** The corrosion resistant properties of FRP grating and other products reduce or eliminate the need for sandblasting, 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 meets 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 less manpower.



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



**Low Install Cost:** Due to ease of fabrication and light weight, FRP pultruded grating eliminates the need for heavy lifting equipment.



**Long Service Life:** Fiberglass products provide outstanding durability and corrosion resistance in demanding applications, therefore providing 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 FRP structural shapes. These pultruded gratings complement the current line of NSF Standard 61-Certified Fibergrate® molded gratings, Dynaform® fiberglass structural shapes, and Dynarail® FRP guardrail, handrail and ladder systems. NSF Standard 61-Certified molded gratings are available in all Fibergrate® molded grating mesh patterns and thicknesses, except Ecograte® and 4 x 12 Micro-Mesh® panels.



### Heavy Metal Safe:

The EPA, OSHA 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/Color |         |            |  |
|                                |                  |                       | 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 Gray | —          |  |
| I5010                          | 25               | 30                    | 914, 1219     | 2.4, 3.0, 3.7, 6.1, 7.3 | 33          | 15.9                   | 50%       | Yellow      | Dk Gray | —          |  |
| I4010                          | 25               | 25                    | 914, 1219     | 2.4, 3.0, 3.7, 6.1, 7.3 | 39          | 18.4                   | 40%       | Yellow      | Dk Gray | —          |  |
| I6015                          | 38               | 38                    | 914, 1219     | 2.4, 3.0, 3.7, 6.1, 7.3 | 8           | 15.4                   | 60%       | Yellow      | Dk Gray | Brown*     |  |
| I5015                          | 38               | 30                    | 914, 1219     | 2.4, 3.0, 3.7, 6.1, 7.3 | 26          | 18.7                   | 50%       | Yellow      | Dk Gray | —          |  |
| I4015                          | 38               | 25                    | 914, 1219     | 2.4, 3.0, 3.7, 6.1, 7.3 | 39          | 22.5                   | 40%       | Yellow      | Dk Gray | Brown*     |  |
| T5020                          | 51               | 51                    | 914, 1219     | 2.4, 3.0, 3.7, 6.1, 7.3 | 20          | 10.3                   | 50%       | Yellow      | Dk Gray | —          |  |
| T3320                          | 51               | 38                    | 914, 1219     | 2.4, 3.0, 3.7, 6.1, 7.3 | 26          | 18.0                   | 33%       | Yellow      | Dk Gray | —          |  |

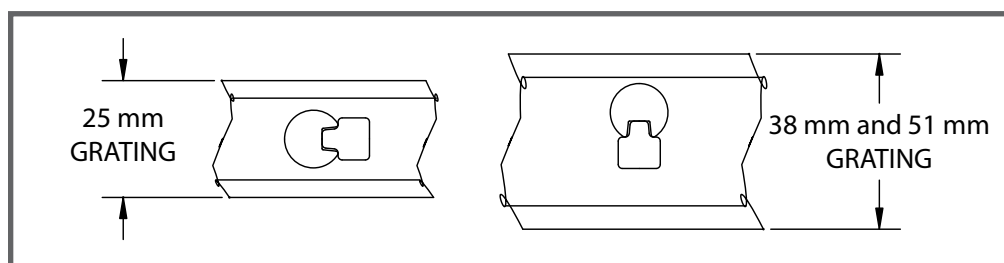
\*Phenolic Grating also available with UV coating - Awning Red color

## 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/Color |          |            |  |
|                                |                  |                       | 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 Gray     | Dk Gray  | —          |  |
| T2510                          | 25               | 51                    | 914, 1219     | 2.4, 3.0, 3.7, 6.1, 7.3 | 20          | 12.3                   | 25%       | Dk Gray     | Dk Gray  | —          |  |
| T1210                          | 25               | 43                    | 914, 1219     | 2.4, 3.0, 3.7, 6.1, 7.3 | 23          | 13.4                   | 12%       | Dk Gray*    | Dk Gray* | —          |  |
| T3815                          | 38               | 61                    | 914, 1219     | 2.4, 3.0, 3.7, 6.1, 7.3 | 16          | 13.2                   | 38%       | Dk Gray     | Dk Gray  | —          |  |
| T2515                          | 38               | 51                    | 914, 1219     | 2.4, 3.0, 3.7, 6.1, 7.3 | 20          | 13.8                   | 25%       | Dk Gray     | Dk Gray  | —          |  |
| T1215                          | 38               | 43                    | 914, 1219     | 2.4, 3.0, 3.7, 6.1, 7.3 | 23          | 15.0                   | 12%       | Dk Gray*    | Dk Gray* | —          |  |

(5' widths and 8', 12' and 24' 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 gray in color; bottom of grating is dark gray.

## Tie Bar Representation



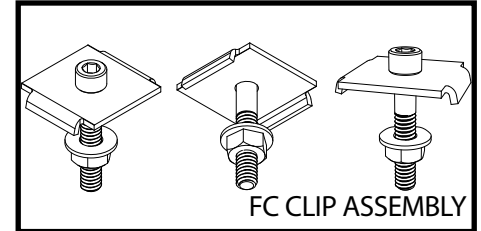


# Grating Selection & Accessories

## Clip Assemblies

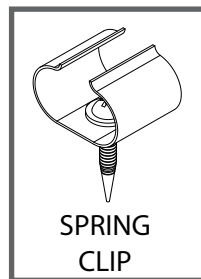
Fibergrate's newly designed FC Hold Down Clip Assembly offers an easy and more cost effective solution for installing pultruded grating. Type FC Hold Down Clips secure grating below the walking surface.

*(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)*

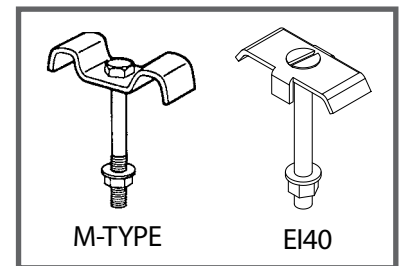


*Fibergrate's Type RT and RI Hold Down Clip Assemblies of Type 316 stainless steel are still available for special order.*

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 a spray can\*, for protecting the exposed ends of cut panels and other components.

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

## Grating Edge Ramps

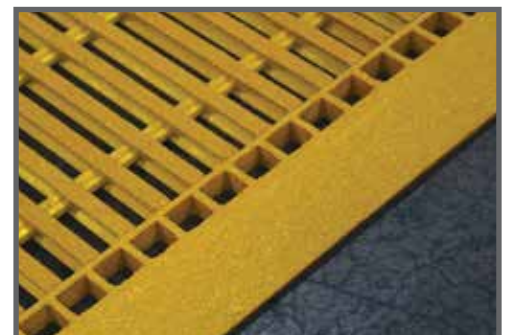
Fibergrate's new standard grating edge ramps can be used with 25 mm, 38 mm, and 51 mm deep Safe-T-Span® pultruded grating. These grating edge ramps are offered in dark gray or yellow and have a quartz grit top surface. Grating edge ramps are stocked in 3.7 m lengths; however, they can be easily fabricated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

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

<http://fibergrate.com/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

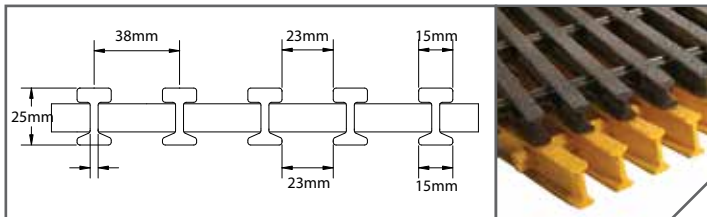
Safe-T-Span industrial grating is available in 25 mm, 32 mm, and 38 mm depths in an I-bar configuration with 40%, 50% and 60% open areas. 51 mm depth T-bar configuration with 33% or 50% open area is also available for applications which require wider spans or lower deflections. For details and load charts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

## Grating Details

Refer to chart on page 4 for Grating Selection.

### 25 mm Deep I6010

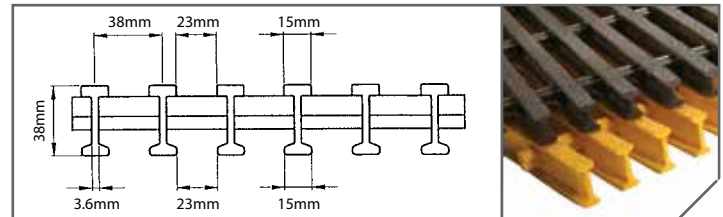
| # of Bars/<br>m of Width | Load Bar<br>Depth | Open<br>Area | Load Bar<br>Centers | Approximate<br>Weight  |
|--------------------------|-------------------|--------------|---------------------|------------------------|
| 26                       | 25 mm             | 60%          | 38 mm               | 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 E = 35.52 GPa (SPAN ≥ 600mm)

### 38 mm Deep I6015

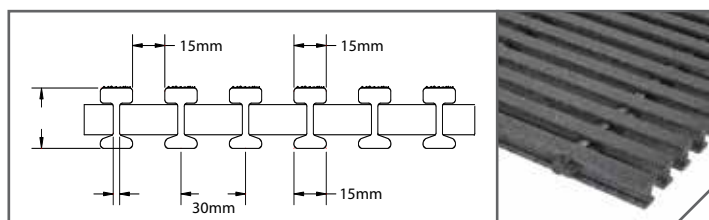
| # of Bars/<br>m of Width | Load Bar<br>Depth | Open<br>Area | Load Bar<br>Centers | Approximate<br>Weight  |
|--------------------------|-------------------|--------------|---------------------|------------------------|
| 26                       | 38 mm             | 60%          | 38 mm               | 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 E = 33.74 GPa (SPAN ≥ 600mm)

### 25 mm Deep I5010

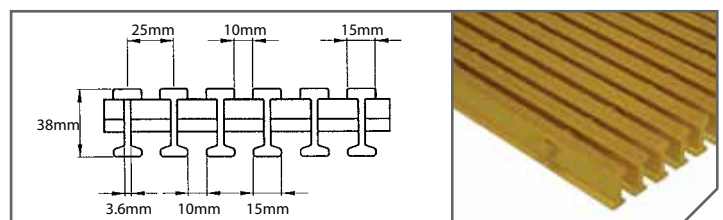
| # of Bars/<br>m of Width | Load Bar<br>Depth | Open<br>Area | Load Bar<br>Centers | Approximate<br>Weight  |
|--------------------------|-------------------|--------------|---------------------|------------------------|
| 33                       | 25 mm             | 50%          | 30mm                | 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 E = 35.31 GPa (SPAN ≥ 600mm)

### 38 mm Deep I5015 (ADA Compliant)

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

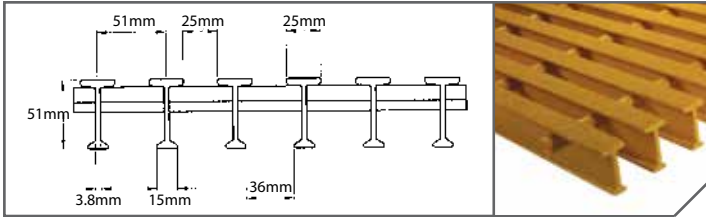


Section Properties per m of Width:  $A = 1.0 \times 10^4 \text{ mm}^2$   $I = 1.9 \times 10^6 \text{ mm}^4$   $S = 9.7 \times 10^4 \text{ mm}^3$   
Average E = 33.59 GPa (SPAN ≥ 600mm)

# Safe-T-Span® Industrial Grating Details

## 51mm Deep T5020

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

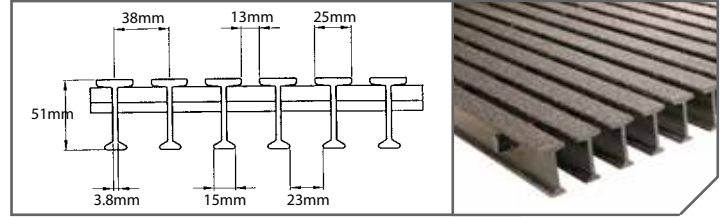


Section Properties per m of Width:  $A=6.8 \times 10^3 \text{ mm}^2$   $I=2.3 \times 10^6 \text{ mm}^4$   $St=1.1 \times 10^5 \text{ mm}^3$   $Sb=7.9 \times 10^4 \text{ mm}^3$   
Average E = 31.19 GPa (SPAN ≥ 600mm)

## 51 mm Deep T3320 (ADA Compliant)



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

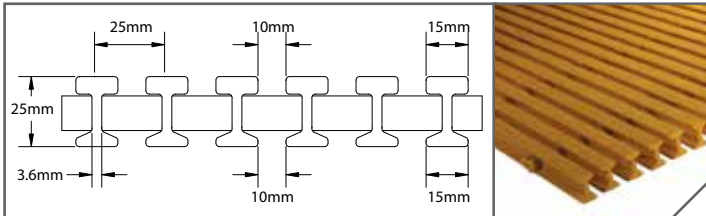


Section Properties per m of Width:  $A=9.1 \times 10^3 \text{ mm}^2$   $I=3.3 \times 10^6 \text{ mm}^4$   $St=1.4 \times 10^5 \text{ mm}^3$   $Sb=1.1 \times 10^5 \text{ mm}^3$   
Average E = 28.32 GPa (SPAN ≥ 600mm)

## 25 mm Deep I4010 (ADA Compliant)



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

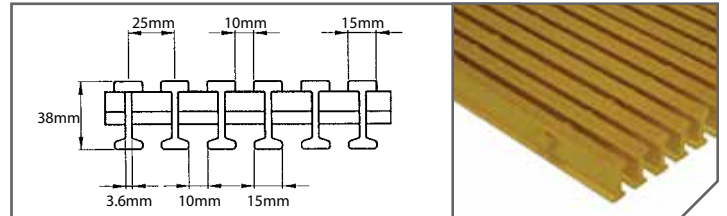


Section Properties per m of Width:  $A=8.4 \times 10^3 \text{ mm}^2$   $I=6.8 \times 10^5 \text{ mm}^4$   $S=5.1 \times 10^4 \text{ mm}^3$   
Average E = 34.47 GPa (SPAN ≥ 600mm)

## 38 mm Deep I4015 (ADA Compliant)



| # of Bars/<br>m of Width | Load Bar<br>Depth | Open<br>Area | Load Bar<br>Centers | Approximate<br>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 E = 34.23 GPa (SPAN ≥ 600mm)

# Safe-T-Span® High Load Capacity Grating

High Load Capacity (HI) pultruded grating is yet another product in the arsenal of engineered fiberglass reinforced plastic (FRP) solutions by Fibergrate. While capitalizing 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 FRP product has been engineered to carry the forklift and tractor trailer loads that traditional pultruded FRP 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









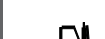


- Standard panels consist of:
  - Fire retardant vinyl ester resin system
  - Dark gray in color
  - Aluminum oxide grit top surface

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><br>18 144 kg Axle Load<br>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><br>14 515 kg Axle Load<br>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><br>10 886 kg Axle Load<br>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><br>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><br>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><br>2 868 kg Vehicle<br>1 623 kg Load<br>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><br>6 532 kg Vehicle<br>11 068 kg Total Load<br>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><br>4 445 kg Vehicle<br>7 168 kg Total Load<br>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><br>1 905 kg Vehicle<br>2 182 kg Total Load<br>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 wheel + two additional load bars, one on each side of 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



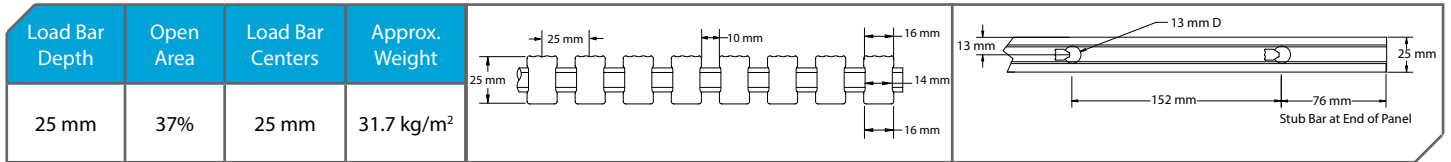


# High Load Capacity Grating Details

## Grating Details

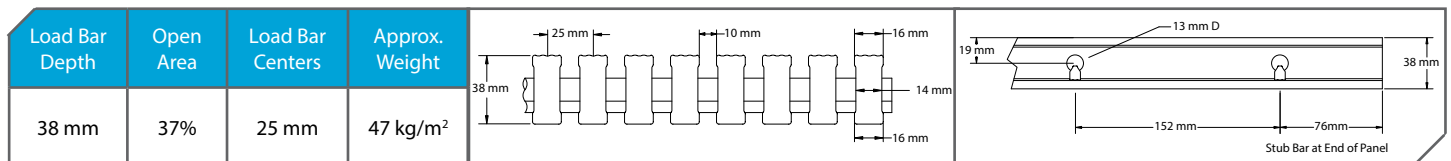
HI37 Series 

### 25 mm Deep HI3710



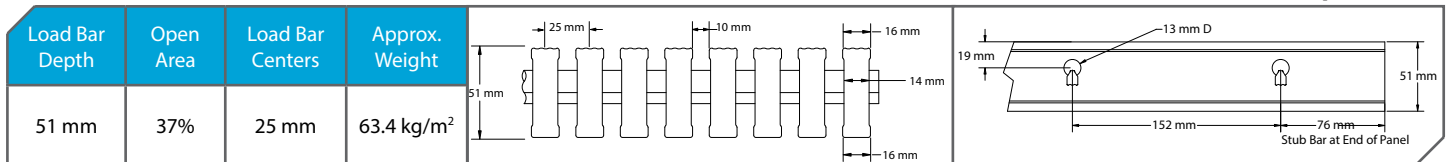
Section Properties per Ft of Width:  $A=14,977 \text{ mm}^2/\text{m}$   $I=8.11 \times 10^5 \text{ mm}^4/\text{m}$   $S=1.62 \times 10^6 \text{ mm}^3/\text{m}$

### 38 mm Deep HI3715



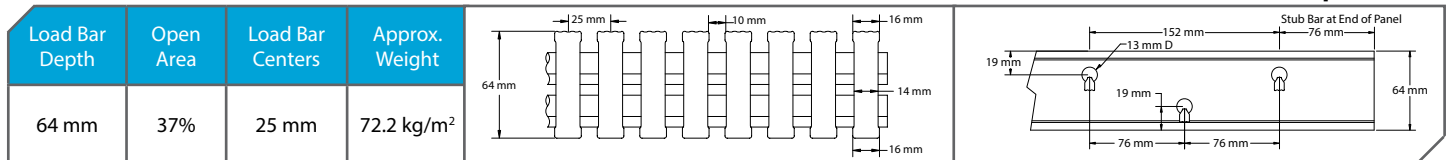
Section Properties per Ft of Width:  $A=22,088 \text{ mm}^2/\text{m}$   $I=2.72 \times 10^6 \text{ mm}^4/\text{m}$   $S=3.63 \times 10^6 \text{ mm}^3/\text{m}$

### 51 mm Deep HI3720



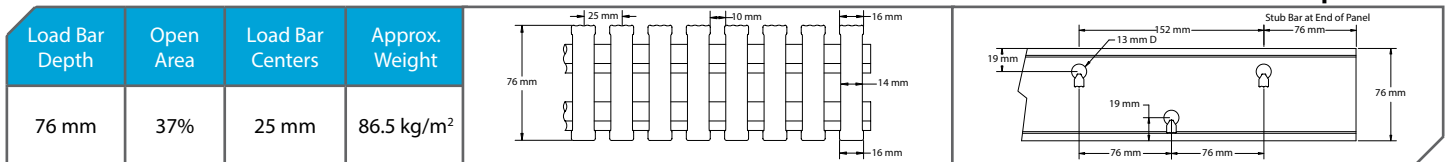
Section Properties per Ft of Width:  $A=29,250 \text{ mm}^2/\text{m}$   $I=6.52 \times 10^6 \text{ mm}^4/\text{m}$   $S=6.52 \times 10^6 \text{ mm}^3/\text{m}$

### 64 mm Deep HI3725



Section Properties per Ft of Width:  $A=36,437 \text{ mm}^2/\text{m}$   $I=1.26 \times 10^7 \text{ mm}^4/\text{m}$   $S=1.01 \times 10^7 \text{ mm}^3/\text{m}$

### 76 mm Deep HI3730



Section Properties per Ft of Width:  $A=43,574 \text{ mm}^2/\text{m}$   $I=2.17 \times 10^7 \text{ mm}^4/\text{m}$   $S=1.45 \times 10^7 \text{ mm}^3/\text{m}$

**NOTES:**

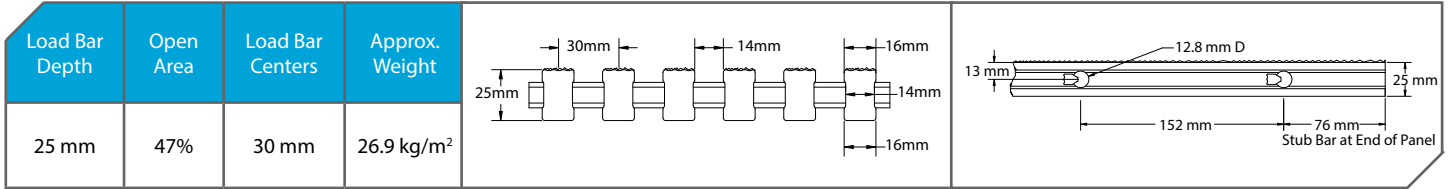
1. All pultruded grating panels are assembled to size from stocked bar lengths of 6.1m and 7.3m to minimize waste and cost. Maximum panel widths (tie bar length) are 1.2m nominal.
2. Available panel sizes are dependent upon application requirements and individual panel weight considerations because this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

# High Load Capacity Grating Details

## Grating Details

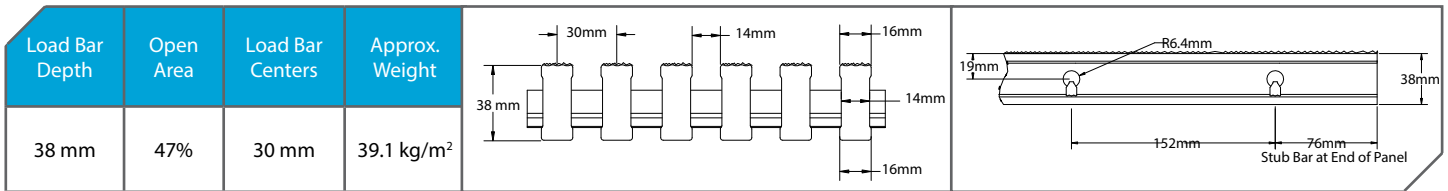
### HI47 Series

#### 25 mm Deep HI4710



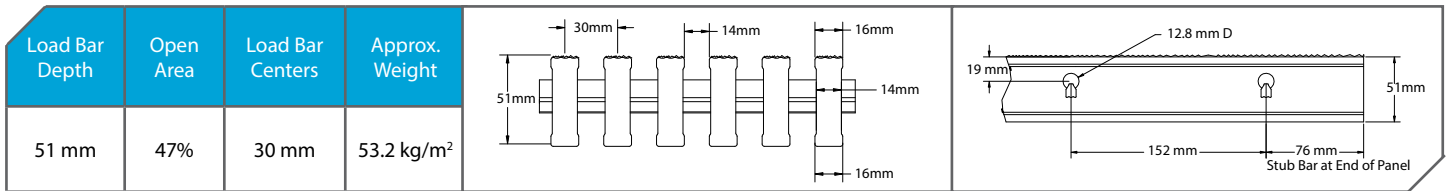
Section Properties per m of Width:  $A=1.3 \times 10^4 \text{ mm}^2$   $I=7.0 \times 10^5 \text{ mm}^4$   $S=5.4 \times 10^4 \text{ mm}^3$

#### 38 mm Deep HI4715



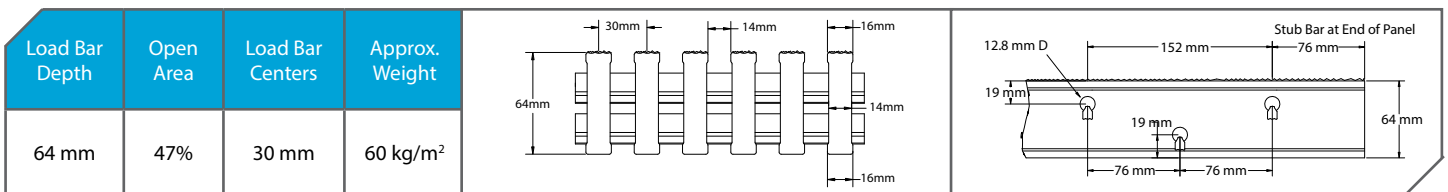
Section Properties per m of Width:  $A=1.9 \times 10^4 \text{ mm}^2$   $I=2.3 \times 10^6 \text{ mm}^4$   $S=1.2 \times 10^5 \text{ mm}^3$

#### 51 mm Deep HI4720



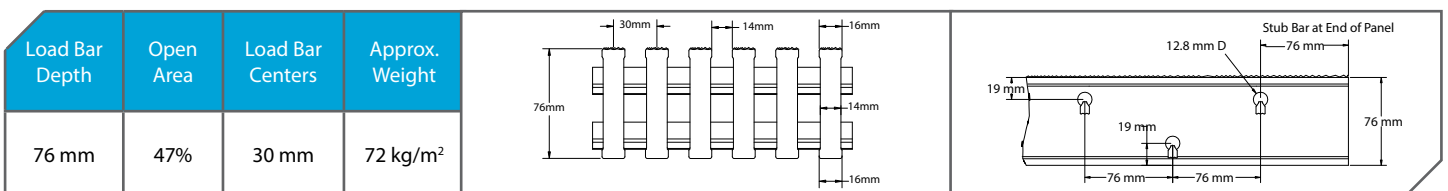
Section Properties per m of Width:  $A=2.5 \times 10^4 \text{ mm}^2$   $I=5.4 \times 10^6 \text{ mm}^4$   $S=2.1 \times 10^5 \text{ mm}^3$

#### 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:  $A=3.67 \times 10^4 \text{ mm}^2$   $I=1.81 \times 10^7 \text{ mm}^4$   $S=4.74 \times 10^5 \text{ mm}^3$

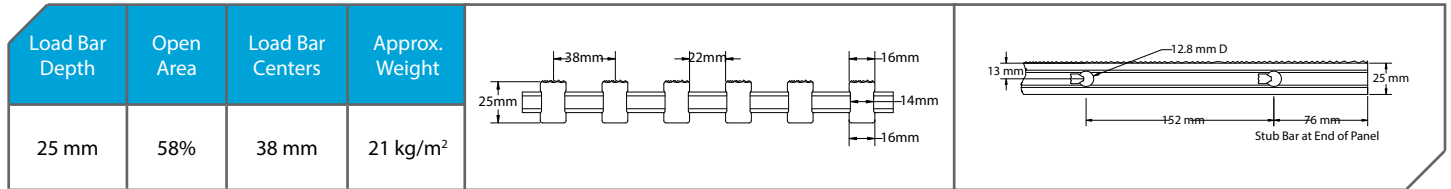
- NOTES:**
1. All pultruded grating panels are assembled to size from stocked bar lengths of 6.1m and 7.3m to minimize waste and cost. Maximum panel widths (tie bar length) are 1.2m nominal.
  2. Available panel sizes are dependent upon application requirements and individual panel weight considerations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

# High Load Capacity Grating Details

## Grating Details

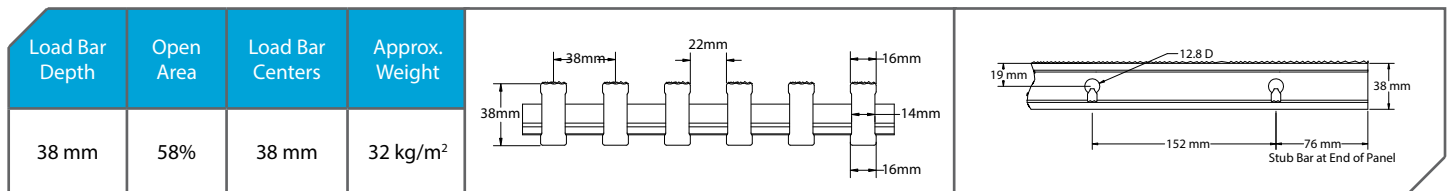
### HI58 Series

#### 25 mm Deep HI5810



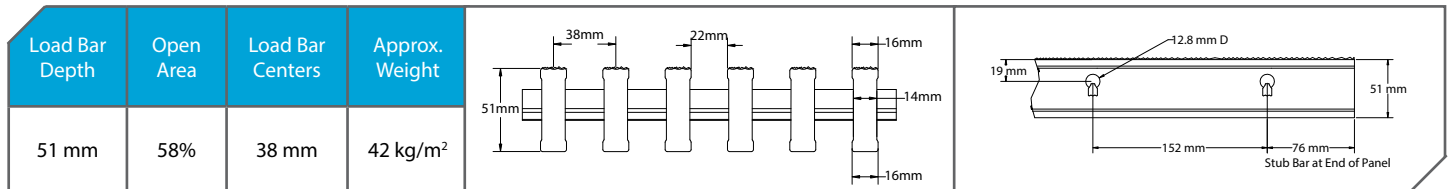
**Section Properties per m of Width:**  $A=9.99 \times 10^3 \text{ mm}^2$   $I=5.46 \times 10^5 \text{ mm}^4$   $S=4.19 \times 10^4 \text{ mm}^3$

#### 38 mm Deep HI5815



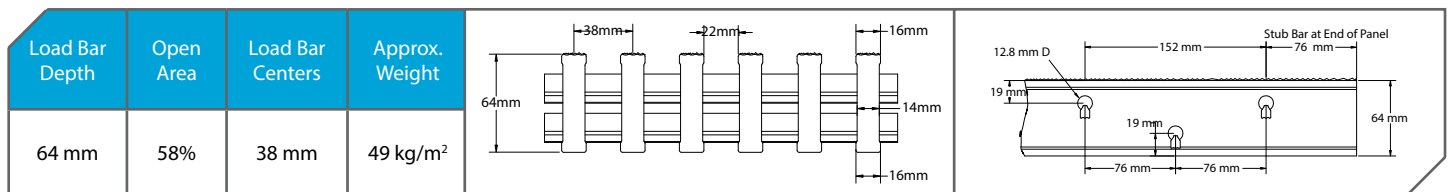
**Section Properties per m of Width:**  $A=1.47 \times 10^4 \text{ mm}^2$   $I=1.86 \times 10^6 \text{ mm}^4$   $S=9.62 \times 10^4 \text{ mm}^3$

#### 51 mm Deep HI5820



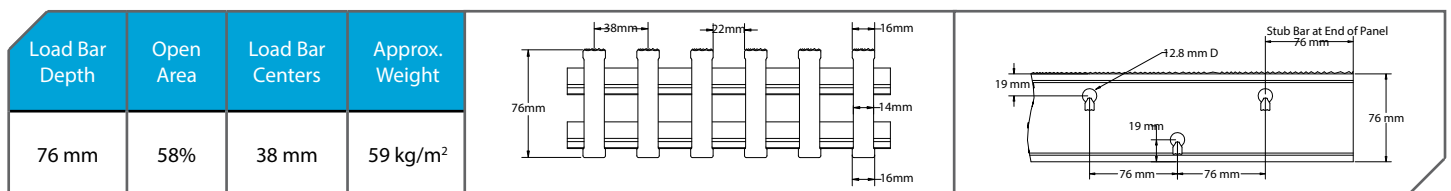
**Section Properties per m of Width:**  $A=1.95 \times 10^4 \text{ mm}^2$   $I=4.26 \times 10^6 \text{ mm}^4$   $S=1.68 \times 10^5 \text{ mm}^3$

#### 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

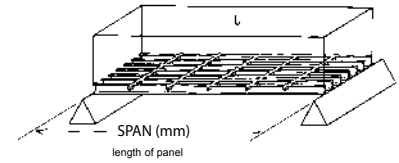


**Section Properties per m of Width:**  $A=2.91 \times 10^4 \text{ mm}^2$   $I=1.43 \times 10^7 \text{ mm}^4$   $S=3.75 \times 10^5 \text{ mm}^3$

#### NOTES:

1. All pultruded grating panels are assembled to size from stocked bar lengths of 6.1m and 7.3m to minimize waste and cost. Maximum panel widths (tie bar length) are 1.2m nominal.
2. 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



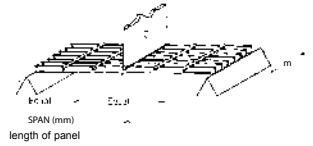
**IMPORTANT:** Load information is different for Phenolic resin gratings. Please contact Fibergate for Phenolic load information.

| INDUSTRIAL SERIES SAFE-T-SPAN UNIFORM LOAD TABLE - DEFLECTIONS IN MILLIMETERS |       |                           |       |       |       |       |       |       |   |  |
|---|-------|---------------------------|-------|-------|-------|-------|-------|-------|---|--|
| 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: FRP Composites Grating Manual for Pultruded and Molded 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



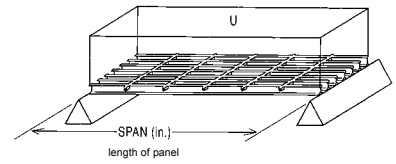
**IMPORTANT:** Load information is different for Phenolic resin gratings. Please contact Fibergrate for Phenolic load information.

| INDUSTRIAL SERIES SAFE-T-SPAN CONCENTRATED LINE LOAD TABLE - DEFLECTIONS IN MILLIMETERS |       |                      |       |       |       |      |      |      |                            |                          |
|---|-------|----------------------|-------|-------|-------|------|------|------|----------------------------|--------------------------|
| 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: FRP Composites Grating Manual for Pultruded and Molded 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

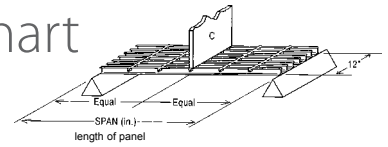


| HI37 PULTRUDED SERIES UNIFORM LOAD TABLE - DEFLECTIONS IN MILLIMETERS |        |                           |       |       |       |       |       |       |       |       |       |  |  |
|---|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|
| 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:**

- 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 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: FRP Composites Grating Manual for Pultruded and Molded Grating and Stair Treads.

# HI37 Grating Concentrated Line Load Chart



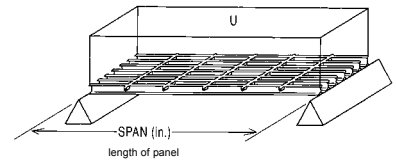
**HI37 PULTRUDED SERIES LINE LOAD TABLE - DEFLECTIONS IN MILLIMETERS**

| 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                      |

**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: FRP Composites Grating Manual for Pultruded and Molded Grating and Stair Treads.

# HI47 Grating Uniform Load Chart

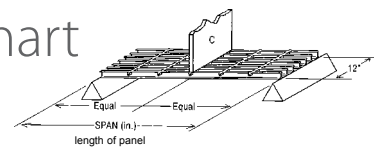


| HI47 PULTRUDED SERIES UNIFORM LOAD TABLE - DEFLECTIONS IN MILLIMETERS |        |                           |       |       |       |       |       |       |       |       |       |  |  |
|---|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|
| 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                                    |

**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 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: FRP Composites Grating Manual for Pultruded and Molded Grating and Stair Treads.





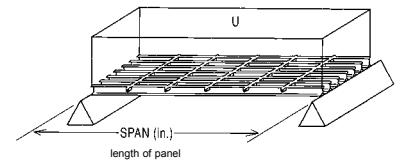
### HI47 PULTRUDED SERIES LINE LOAD TABLE - DEFLECTIONS IN MILLIMETERS

| 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.
- 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: FRP Composites Grating Manual for Pultruded and Molded Grating and Stair Treads.

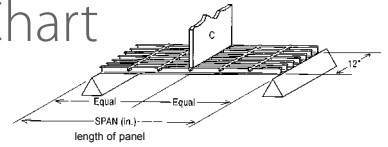
# HI58 Grating Uniform Load Chart



| HI8 PULTRUDED SERIES UNIFORM LOAD TABLE - DEFLECTIONS IN MILLIMETERS |        |                           |       |       |       |       |       |       |       |       |      |  |  |
|--|--------|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|--|--|
| 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                                    |
| 1600   | HI5815 | 6.99                      | 10.49 | —     | —     | —     | —     | —     | —     | —     | —    | 47                                       | 143                                    |
|  | 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                                    |
| 1800   | HI5815 | 11.20                     | —     | —     | —     | —     | —     | —     | —     | —     | —    | 37                                       | 113                                    |
|  | HI5820 | 5.10                      | 7.65  | 10.20 | —     | —     | —     | —     | —     | —     | —    | 72                                       | 217                                    |
|  | 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                                    |
| 2000   | 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                                    |
| 2200   | 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: FRP Composites Grating Manual for Pultruded and Molded Grating and Stair Treads.

# HI58 Grating Concentrated Line Load Chart



| HI58 PULTRUDED SERIES LINE LOAD TABLE - DEFLECTIONS IN MILLIMETERS |        |                      |       |       |       |       |       |       |       |       |       |                            |                          |
|--|--------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------------|--------------------------|
| 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: FRP Composites Grating Manual for Pultruded and Molded 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 or lower deflection criteria are required.



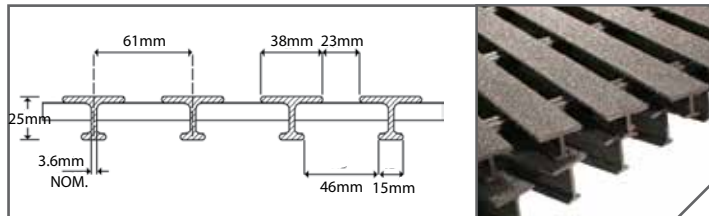
Pontoon Boardwalk in Portland, Oregon

## Grating Details

Refer to chart on page 4 for Grating Selection.

### 25mm Deep T3810

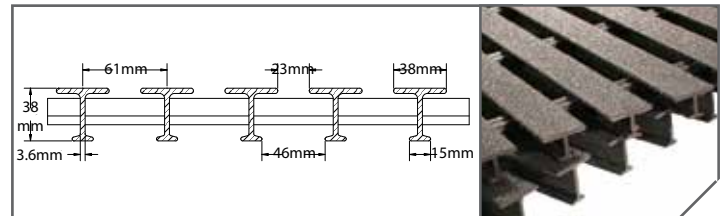
| # of Bars/ m of Width | Load Bar Depth | Open Area | Load Bar Centers | Approximate Weight    |
|-----------------------|----------------|-----------|------------------|-----------------------|
| 16                    | 25mm           | 38%       | 61mm             | 9.3 kg/m <sup>2</sup> |



Section Properties per m of Width: A=3.73x10<sup>3</sup> mm<sup>2</sup> I=3.14x10<sup>9</sup> mm<sup>4</sup> St=3.49x10<sup>4</sup> mm<sup>3</sup> Sb=1.88x10<sup>4</sup> mm<sup>3</sup>  
Average E = 33.57GPa (SPAN ≥ 600mm)

### 38mm Deep T3815

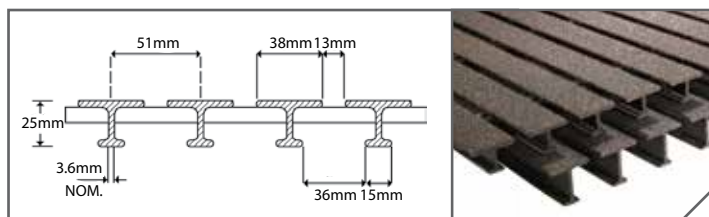
| # of Bars/ m of Width | Load Bar Depth | Open Area | Load Bar Centers | Approximate Weight   |
|-----------------------|----------------|-----------|------------------|----------------------|
| 16                    | 38mm           | 38%       | 61mm             | 13 kg/m <sup>2</sup> |



Section Properties per m of Width: A=4.83x10<sup>3</sup> mm<sup>2</sup> I=9.01x10<sup>9</sup> mm<sup>4</sup> St=6.61x10<sup>4</sup> mm<sup>3</sup> Sb=3.71x10<sup>4</sup> mm<sup>3</sup>  
Average E = 35.94 GPa (SPAN ≥ 600mm)

### 25mm Deep T2510 (ADA Compliant)

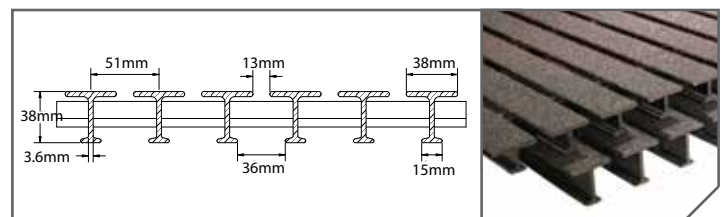
| # of Bars/ m of Width | Load Bar Depth | Open Area | Load Bar Centers | Approximate Weight   |
|-----------------------|----------------|-----------|------------------|----------------------|
| 20                    | 25mm           | 25%       | 51mm             | 12 kg/m <sup>2</sup> |



Section Properties per m of Width: A=4.47x10<sup>3</sup> mm<sup>2</sup> I=3.69x10<sup>9</sup> mm<sup>4</sup> St=4.25x10<sup>4</sup> mm<sup>3</sup> Sb=2.26x10<sup>4</sup> mm<sup>3</sup>  
Average E = 34.22 GPa (SPAN ≥ 600mm)

### 38mm Deep T2515 (ADA Compliant)

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



Section Properties per m of Width: A=5.78x10<sup>3</sup> mm<sup>2</sup> I=1.09x10<sup>10</sup> mm<sup>4</sup> St=7.90x10<sup>4</sup> mm<sup>3</sup> Sb=4.46x10<sup>4</sup> mm<sup>3</sup>  
Average E = 35.59 GPa (SPAN ≥ 600mm)



# 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 such facilities as swimming pools, water parks, marinas and piers.



Boat dock on Horseshoe Lake in Haliburton, Ontario.

Aqua Grate is available in a variety of lengths and widths, making it useful for a number 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 salt water environments found in marine and waterfront applications, Aqua Grate will offer years of low cost, low maintenance service.



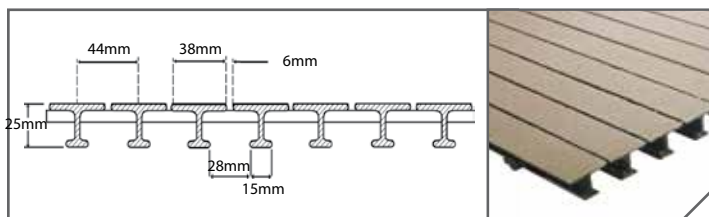
Corinthian Yacht Club Harbor in San Francisco, California.

## Grating Details

Refer to chart on page 4 for Grating Selection.

### 25mm Deep T1210 (ADA Compliant)

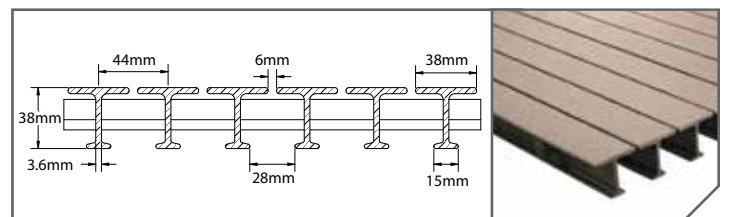
| # of Bars/<br>m of Width | Load Bar<br>Depth | Open<br>Area | Load Bar<br>Centers | Approximate<br>Weight |
|--------------------------|-------------------|--------------|---------------------|-----------------------|
| 23                       | 25mm              | 12%          | 44mm                | 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 E = 33.78 GPa (SPAN ≥ 600mm)

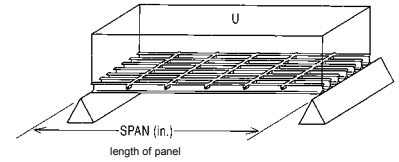
### 38mm Deep T1215 (ADA Compliant)

| # of Bars/<br>m of Width | Load Bar<br>Depth | Open<br>Area | Load Bar<br>Centers | Approximate<br>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 E = 35.79 GPa (SPAN ≥ 600mm)

# Pedestrian Series Uniform Load Chart



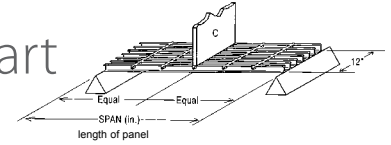
| PEDESTRIAN SERIES SAFE-T-SPAN UNIFORM LOAD TABLE - DEFLECTIONS IN MILLIMETERS |       |                           |       |       |       |      |      |      |   |  |
|---|-------|---------------------------|-------|-------|-------|------|------|------|---|--|
| CLEAR SPAN (mm)   | STYLE | LOAD (kN/m <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 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 full 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 kN/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: FRP Composites Grating Manual for Pultruded and Molded 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 MILLIMETERS**

| 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 full 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: FRP Composites Grating Manual for Pultruded and Molded 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

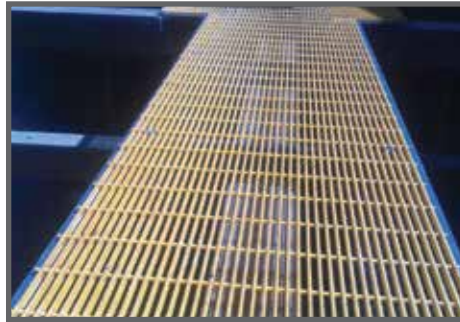
Fibergrate Composite Structures has developed a number of specialty pultruded gratings to meet specific requirements brought to us by our customers. These grating solutions were developed in partnerships with our customers, capitalizing on Fibergrate's 20+ years of pultruded experience and the customers' 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.com](http://fibergrate.com) > [Products](#) > [Pultruded Grating](#) > [Custom Pultruded Gratings](#). Two of our more popular custom gratings include our 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 aluminum 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)*

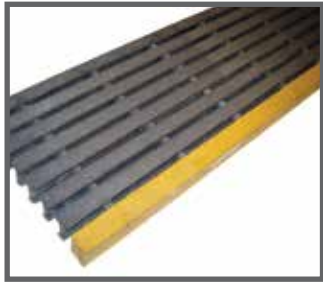
The WT Pedestrian Series is offered in a variety of sizes with open areas including 35%, 18% or even 0% and depths of 25mm or 38mm. The T-shaped top of the load bar provides maximum surface area underfoot, thus the most comfortable walking surface and a smoother surface for two-wheel moving equipment. 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 Fiberglass pultruded fiberglass 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. Fiberglass'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 millimeters | 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:**

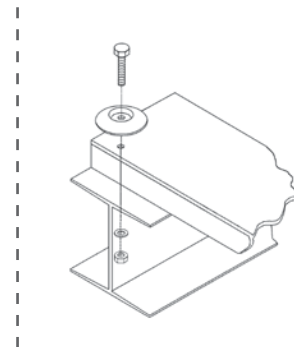
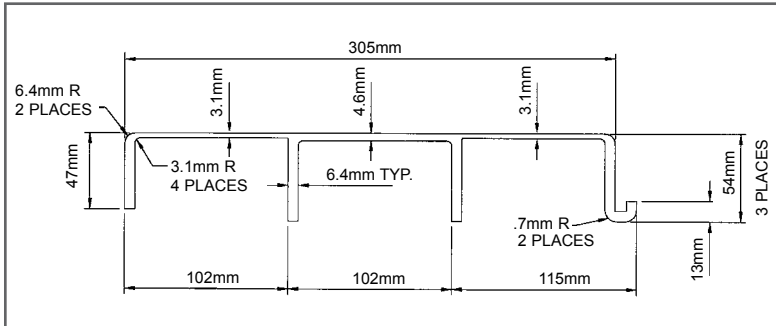
1. It is suggested that stair tread deflection be limited to SPAN/150. Deflections based on this ratio are provided at the top of the table.
2. Deflection in the body of the table are for concentrated loads of both 1 kN and 2 kN. A concentrated load is applied at the center of the tread, over a width 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 center of span)  
 ΔU – Uniform Load Deflection (mm)      ΔC – Concentrated Load Deflection (mm)

## Applications

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

## Dynadeck® Resins

- ISOFR - Dark Gray (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® Molded |         |         |     | 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     |
| Aluminum Chloride                  | ALL             | MAX         | C                 | C       | C       | C   | C                      | C     |
| Aluminum 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     |
| Sulfur Dioxide                     | SAT             | MAX         | C                 | S       | S       | S   | S                      | S     |
| Sulfuric Acid                      | 25              | MAX         | C                 | S       | S       | S   | S                      | I     |
| Sulfuric Acid                      | 50              | MAX         | C                 | S       | S       | S   | S                      | N     |
| Sulfuric 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 | S                 | 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 fiberglass 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® Molded Grating

Fibergrate® molded 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.



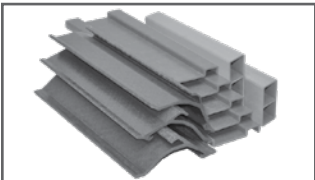
## Dynaform® Structural Shapes

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 and 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 molding, Fibergrate can help bring your vision to reality.



## Design & Fabrication Services

Combining engineering expertise with an understanding of fiberglass applications, Fibergrate provides turnkey design and fabrication of fiberglass 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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