

# RIGIDEX<sup>®</sup> Fiberglass Moltruded Grating

*High Strength-to-Weight Ratio*

*Slip Resistant*

*Corrosion Resistant*

*Low Maintenance*

*Low Installation Cost*

# Fibergrate

Composite Structures

*High Performance Composite Solutions*



# RIGIDEX<sup>®</sup> Moltruded<sup>®</sup> Grating

RIGIDEX<sup>®</sup> fiberglass moltruded<sup>®</sup> gratings are the first gratings to combine the high performance of fiberglass reinforced plastic (FRP) molded and pultruded grating construction at a cost more competitive with metal products. Even at this competitive cost, RIGIDEX grating continues to provide a high strength-to-weight ratio, corrosion resistance, low maintenance and slip resistance far superior to traditional metal materials.

The RIGIDEX line is manufactured by the moltruded process where a high number of fiberglass rovings are uniquely placed to deliver superior unidirectional strength. Tie bars occupy only the top half of the grating allowing more fiberglass rovings where they provide the most strength—in the lower half of the load bars. This unique design increases the cost effectiveness of the grating since the grating can span greater distances so fewer structural supports are required.

RIGIDEX is composed of 65% resin and 35% fiberglass; this resin-to-glass ratio is key to its high level of corrosion resistance. In addition, the gratings' one-piece, molded design eliminates holes and mechanical joints to improve corrosion resistance and extend the life of the grating. RIGIDEX grating requires virtually no maintenance throughout its extended life cycle.

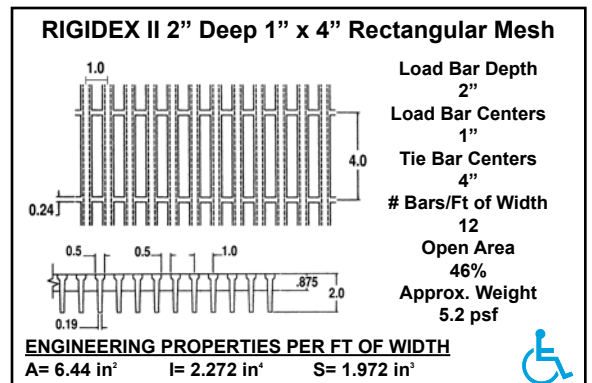
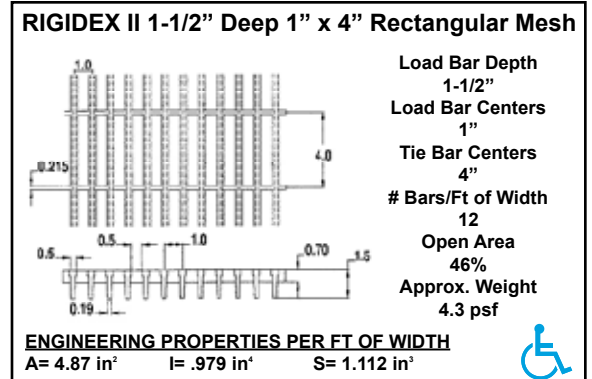
With its light weight benefits, RIGIDEX continues to save by decreasing shipping and installation costs. At five pounds or less per square foot, RIGIDEX grating can be installed by fewer workers and does not require expensive welding, lifting machinery or cutting torches. Cutting FRP grating requires only circular or jig saws with an abrasive blade.

When it comes to counting long term savings, safety is an important consideration. An aggressive slip resistant surface provides sure footing even in wet areas. RIGIDEX II offers the added benefit of being ADA compliant and meeting the 15mm ball test common in Europe and for offshore applications.



## Grating Details

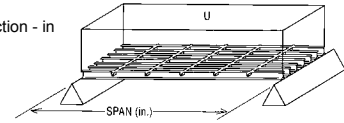
ISOFR Resin System, 4' x 12' Panels



- Superior Strength Achieves Pultruded Grating Stiffness
- Longer Spans Means Fewer Costly Support Members
- Priced Competitively with Pultruded or Aluminum Grating
- One-Piece Construction for Superior Corrosion Resistance
- Aggressive Surface Area Provides Sure Footing
- ADA and 15mm Ball Test Compliant (RIGIDEX II)
- Open Area Allows for Air, Light and Liquid Flow
- Easy to Clean, with Half-Height Tie Bars
- Easy, Cost-Efficient Installation
- Long, Low Maintenance Life

# Load Tables - RIGIDEX® II

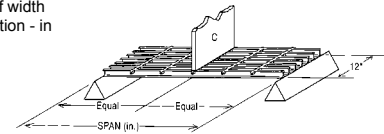
U Uniform Load - psf  
 ΔU Uniform Load Deflection - in



## Uniform Load Table - Deflection in Inches

CLEAR SPAN (in)	STYLE		UNIFORM LOAD (psf)								MAXIMUM RECOMMENDED LOAD (psf)	ULTIMATE CAPACITY (psf)
	DEPTH (in)	MESH (in x in)	50	65	100	200	300	500	1000	2000		
12	1-1/2	1 x 4	<.01	<.01	<.01	<.01	<.01	0.01	0.02	0.04	5330	26670
	2	1 x 4	<.01	<.01	<.01	<.01	<.01	<.01	0.01	0.02	6660	36000
18	1-1/2	1 x 4	<.01	<.01	<.01	0.01	0.02	0.03	0.07	—	2230	13400
	2	1 x 4	<.01	<.01	<.01	<.01	0.01	0.02	0.04	0.07	2830	17000
24	1-1/2	1 x 4	<.01	0.01	0.02	0.04	0.05	0.09	0.18	—	1050	8400
	2	1 x 4	<.01	<.01	0.01	0.02	0.03	0.04	0.09	—	1260	10120
30	1-1/2	1 x 4	0.02	0.03	0.04	0.08	0.13	0.21	—	—	680	5450
	2	1 x 4	<.01	0.01	0.02	0.04	0.06	0.10	—	—	910	7340
36	1-1/2	1 x 4	0.04	0.05	0.08	0.17	0.25	—	—	—	480	3840
	2	1 x 4	0.02	0.02	0.04	0.07	0.11	0.18	—	—	710	5700
42	1-1/2	1 x 4	0.08	0.10	0.16	0.31	0.47	—	—	—	330	2700
	2	1 x 4	0.03	0.04	0.07	0.13	0.20	—	—	—	490	3930
48	1-1/2	1 x 4	0.13	0.17	0.27	0.53	—	—	—	—	240	1970
	2	1 x 4	0.06	0.07	0.11	0.23	0.34	—	—	—	350	2810
54	1-1/2	1 x 4	0.21	0.27	0.42	0.83	—	—	—	—	200	1660
	2	1 x 4	0.09	0.12	0.18	0.36	—	—	—	—	270	2210
60	1-1/2	1 x 4	0.31	0.40	0.62	—	—	—	—	—	170	1420
	2	1 x 4	0.13	0.17	0.27	—	—	—	—	—	220	1790
66	2	1 x 4	0.20	0.26	0.39	—	—	—	—	—	180	1430

C Concentrated Line Load - psf of width  
 ΔC Concentrated Line Load Deflection - in

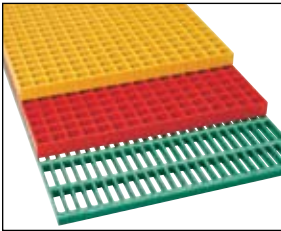


## Concentrated Line Load Table - Deflection in Inches

CLEAR SPAN (in)	STYLE		LINE LOAD (lb/ft of width)								MAXIMUM RECOMMENDED LOAD (lb)	ULTIMATE CAPACITY (lb)
	DEPTH (in)	MESH (in x in)	50	100	200	300	500	1000	1500	2000		
12	1-1/2	1 x 4	<.01	<.01	<.01	<.01	0.01	0.03	0.04	0.06	2670	13350
	2	1 x 4	<.01	<.01	<.01	<.01	0.01	0.02	0.03	0.04	3330	18000
18	1-1/2	1 x 4	<.01	<.01	0.01	0.02	0.04	0.07	—	—	1670	10050
	2	1 x 4	<.01	<.01	<.01	0.01	0.02	0.04	0.06	0.08	2120	12750
24	1-1/2	1 x 4	<.01	0.01	0.03	0.04	0.07	0.14	—	—	1050	8400
	2	1 x 4	<.01	0.01	0.01	0.02	0.03	0.07	0.10	0.14	1260	10120
30	1-1/2	1 x 4	0.01	0.03	0.05	0.08	0.13	—	—	—	850	6810
	2	1 x 4	<.01	0.01	0.02	0.04	0.06	0.12	—	—	1140	9180
36	1-1/2	1 x 4	0.02	0.04	0.09	0.13	0.22	—	—	—	720	5760
	2	1 x 4	0.01	0.02	0.04	0.06	0.10	0.20	—	—	1060	8550
42	1-1/2	1 x 4	0.04	0.07	0.14	0.21	0.36	—	—	—	590	4720
	2	1 x 4	0.02	0.03	0.06	0.09	0.15	—	—	—	860	6870
48	1-1/2	1 x 4	0.05	0.11	0.21	0.32	—	—	—	—	490	3940
	2	1 x 4	0.02	0.05	0.09	0.14	0.23	—	—	—	700	5620
54	1-1/2	1 x 4	0.07	0.15	0.30	0.44	—	—	—	—	460	3730
	2	1 x 4	0.03	0.06	0.13	0.19	0.32	—	—	—	620	4980
60	1-1/2	1 x 4	0.10	0.20	0.39	0.59	—	—	—	—	440	3570
	2	1 x 4	0.04	0.09	0.17	0.26	0.43	—	—	—	560	4480
66	2	1 x 4	0.06	0.11	0.23	0.34	—	—	—	—	490	3950
72	2	1 x 4	0.07	0.15	0.30	0.45	—	—	—	—	430	3510

- NOTES:
- Functionality of grating is limited to MAXIMUM RECOMMENDED LOAD. The designer should not exceed this MAXIMUM RECOMMENDED LOAD at any given span.
  - 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 50-65 psf maximum are recommended for pedestrian traffic. Deflections for worker comfort are typically limited to the lesser of 3/8" or CLEAR SPAN divided by 125; for a firmer feel, limit deflection to the lesser of 1/4" 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 ASCE Structural Plastics Design Manual.
  - All gratings were tested in accordance with the proposed standard of the Fiberglass Grating Manufacturers Council of the American Composites Manufacturers Association (ACMA).

# Fibergrate Products and Services

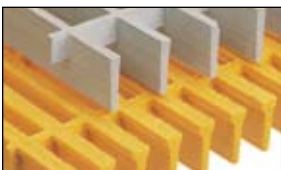


## Fibergrate® Molded Grating

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 more than ten resins and more than twenty grating configurations available in many panel sizes and surfaces.

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

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



## RIGIDEX® Moltruded® Grating

RIGIDEX moltruded gratings are the first fiberglass gratings to combine the corrosion resistance of molded grating with the longer span capacity of pultruded grating, all at the low cost of metal gratings.

## Dynarail® Handrail

Easily assembled from durable prefabricated components or engineered to your specifications, Dynarail handrail meets or exceeds OSHA and strict building code requirements for safety and design.

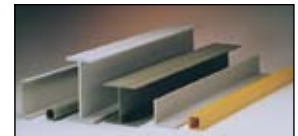


## Dynarail® Safety Ladder System

Easily assembled on site, Dynarail safety ladder systems meet or exceed OSHA requirements. Though less costly than prefabricated ladder systems, these safety ladders provide a custom fit to the supporting structure.

## Dynaform® Structural Shapes

Fibergrate offers a wide range of pultruded structural components for industrial use, including bars, rods, tubes, beams, channels, leg angles and plates.



## Stair Solutions

Fibergrate offers a wide range of slip-resistant products to meet your stair safety needs. These durable products which include treads, tread covers and covered stair treads are a long-term, cost-efficient solution for your facility.

## Grating Pedestals

Uniquely designed adjustable single and quad head pedestals for square mesh molded grating are manufactured to provide safe and economical support for elevated flooring.



## Fabrication Services

Combining engineering expertise with an understanding of fiberglass applications, Fibergrate provides turnkey design and fabrication of fiberglass structures, including platforms, catwalks, stairways and test racks.