

The logo features the letters 'F', 'R', and 'R' in a stylized, serif font, with a small graphic element between the first and second 'R'.

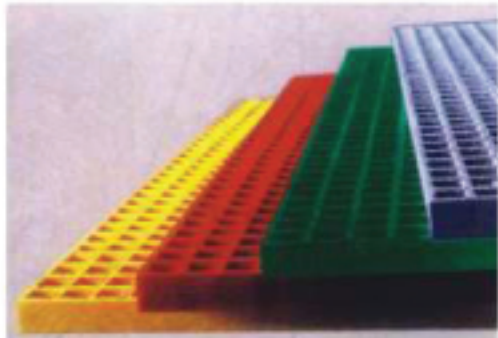
FRP Resource

FRP Resource LLC

FRP Resource LLC is one of the most dynamic and fastest growing companies in the FRP & composite industry. With operations in the US, Canada and China, it offers fiberglass grating products and glass fiber reinforcement products with guaranteed quality (ISO9001 certification) at factory direct price.

We welcome the opportunity to impact your business by:

- Lowering Your Cost
- Improving Your Margin
- Increasing Your Revenue



For more detailed information including datasheets, applications notes and quotes, Please contact:

USA (Head Office):

FRP Resource LLC

119A El Dorado St. • Arcadia, CA91006

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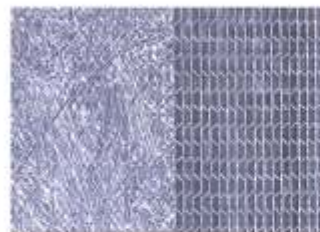
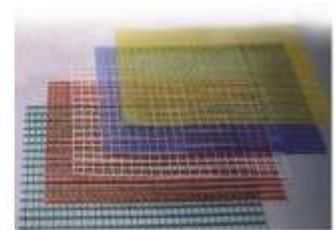
Fiberglass Reinforcements

Features :

- Guaranteed quality (with ISO9001 quality certification)
- Convenient location (warehouses at both West and East Coast)
- Excellent technical support (industry experts, Ph.D. Engineers in North America)
- Unbeatable price (factory direct)

Product Categories:

- Gun Roving
- Woven Roving
- Fiberglass Cloth
- Chopped Strand Mat
- Direct Roving
- Pultrusion Roving
- Filament Winding Roving
- Chopped Strands
- Alkali-resistant Fiberglass Mesh Fabric
- Fiberglass Tape
- Fiberglass Self-adhesive Mesh Tape
- Abrasive Mesh Screen
- Fiberglass Sleeve
- SMC Roving
- Panel Roving
- Stitch-bonded Fabrics
- Stitch-bonded Combo Mat
- Continuous Strand Mat
- Roofing Mat
- Flooring Mat
- Tissue
- Fiberglass Wallcovering



GLOBALGRID® Molded Fiberglass Grating

● GLOBALGRID® Standard Grating Parameters

Panel Thickness	Mesh	Panel Size	Bar Thickness	Open Area	Wt. /Sq. Ft. (Lbs.)	Panel Weight (Lbs.)
5/8"	1.5"X1.5"	4'X12'	1/4"	70%	1.6	77
	1.5"X1.5"	3'X12'	1/4"	70%	1.6	58
1.0"	1.5"X1.5"	4'X12'	1/4"	70%	2.4	116
	1.5"X1.5"	4'X8'	1/4"	70%	2.4	77
	1.5"X1.5"	3'X10'	1/4"	70%	2.4	72
	1.0"X4.0"	3'X10'	1/4"	70%	2.4	72
1.5"	1.5"X1.5"	4'X12'	1/4"	70%	3.8	182
	1.5"X1.5"	4'X8'	1/4"	70%	3.8	121
	1.5"X1.5"	3'X10'	1/4"	70%	3.8	114
2.0"	2.0"X2.0"	4'X12'	5/16"	72%	4.58	220

Three resin types: O-orthophthalic polyester resin or general purpose resin, I-isophthalic polyester resin, V-vinyl ester resin. Other speciality grating products (conductive grating, USDA certified grating and phenolic grating) are also available.

Five surface choices: concave top, grit top, plain top, smooth top, and covered top.

Custom color, thickness and size are available upon request.

*GLOBALGRID® grating has been tested by Omega Point Laboratories, Inc. in accordance with ASTM E84-03, it has Low Smoke Density and meets Flame Spread Rating of Class 1, 25 or less.

● GLOBALGRID® FRP Checker Plate

Six standard thickness: 1/8", 3/16", 1/4", 3/8", 1/2", 3/4".

Two type surfaces: grit top and diamond top.

Custom color, thickness and size are available upon request.

● GLOBALGRID® Stair Treads

Standard thickness: 1.5" .

Available Pattern: 1.5" x1.5" and 1.5" x6.0" mesh. Anti-slip nosing(black color)

Custom color, thickness and size are available upon request.

● GLOBALGRID® Clips

Four types: M, L, C and W.

One set of clips includes bolt, nut, washer and clip. The clip is made of stainless steel(S.S.) 316L, the others are made of S.S. 316 or S.S. 304.

GLOBALGRID® Grating Characteristics:

- Corrosion resistant
- High strength & light weight
- Impact resistant
- Fire retardant
- Slip resistant
- Anti-fatigue
- Non-conductive, non-magnetic, non-sparking
- Attractive and maintenance free
- Installation easy
- Long service life



Typical Applications:

- Flooring • Platforms • Walkways • Assembly Lines
- Trench Covers • Stairs • Catwalks • Ramps

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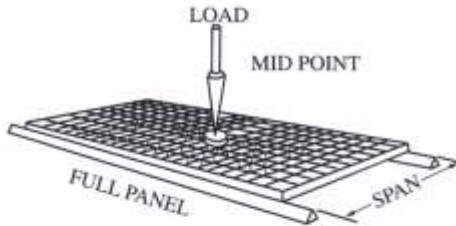
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GLOBALGRID® Molded Grating Load & Deflection Data

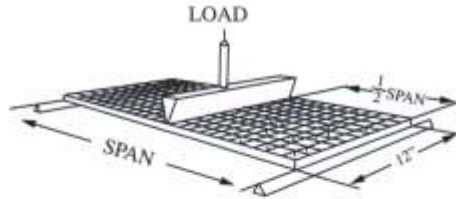
Concentrated Load: Full Panel



1.0" THICK 1.5" X1.5" MESH

SPAN (in)	LOAD (Lbs)						
12	100	250	500	750	1000	1500	2000
18	0.012	0.034	0.068	0.104	0.138	0.200	0.265
24	0.030	0.067	0.133	0.201	0.266	0.400	--
36	0.070	0.170	0.340	--	--	--	--
48	0.145	0.363	--	--	--	--	--

Concentrated Load: 12" Wide Strip



1.0" THICK 1.5" X1.5" MESH

SPAN (in)	LOAD (Lbs/Ft.)						
12	100	250	500	750	1000	1500	2000
18	0.013	0.033	0.066	0.098	0.132	0.195	0.258
24	0.040	0.100	0.200	0.300	0.405	--	--
36	0.098	0.240	0.465	--	--	--	--
48	0.315	--	--	--	--	--	--

Uniformed Load: 12" Wide Strip



1.0" THICK 1.5" X1.5" MESH

SPAN (in)	LOAD (Lbs/Ft.)						
12	25	50	75	100	150	200	250
18	--	--	--	--	0.010	0.013	0.019
24	0.010	0.020	0.031	0.041	0.060	0.082	0.103
36	0.030	0.060	0.090	0.120	0.185	0.241	0.302
48	0.156	0.312	--	--	--	--	--

1.5" THICK 1.5" X1.5" MESH

SPAN (in)	LOAD (Lbs)						
12	100	250	500	750	1000	1500	2000
18	--	0.016	0.032	0.048	0.064	0.096	0.130
24	0.011	0.026	0.059	0.088	0.117	0.173	0.228
36	0.030	0.074	0.150	0.224	0.298	0.445	--
48	0.060	0.150	0.292	0.442	--	--	--

1.5" THICK 1.5" X1.5" MESH

SPAN (in)	LOAD (Lbs/Ft.)						
12	100	250	500	750	1000	1500	2000
18	0.015	0.039	0.077	0.110	0.142	0.210	0.281
24	0.032	0.075	0.151	0.225	0.303	0.442	--
36	0.100	0.250	0.495	--	--	--	--
48	0.230	--	--	--	--	--	--

1.5" THICK 1.5" X1.5" MESH

SPAN (in)	LOAD (Lbs/Ft.)						
12	25	50	75	100	150	200	250
18	--	--	--	0.010	0.020	0.031	0.036
24	0.011	0.022	0.031	0.042	0.062	0.075	0.094
36	0.051	0.102	0.150	0.202	0.298	0.402	--
48	0.142	0.284	0.426	--	--	--	--

2.0" THICK 2.0" X2.0" MESH

SPAN (in)	LOAD (Lbs)						
12	100	250	500	750	1000	1500	2000
18	--	0.013	0.026	0.038	0.049	0.072	0.098
24	--	0.017	0.037	0.053	0.068	0.105	0.134
36	0.011	0.035	0.068	0.105	0.148	0.217	0.282
48	0.030	0.068	0.145	0.216	0.294	0.442	0.590

2.0" THICK 2.0" X2.0" MESH

SPAN (in)	LOAD (Lbs/Ft.)						
12	100	250	500	750	1000	1500	2000
18	0.010	0.023	0.046	0.069	0.082	0.134	0.171
24	0.018	0.041	0.082	0.125	0.161	0.243	--
36	0.047	0.116	0.230	0.355	0.475	--	--
48	0.110	0.273	0.558	--	--	--	--

2.0" THICK 2.0" X2.0" MESH

SPAN (in)	LOAD (Lbs/Ft.)						
12	50	100	200	300	400	500	1000
18	--	--	--	--	--	0.010	0.019
24	0.010	0.020	0.039	0.058	0.080	0.098	0.194
36	0.040	0.090	0.174	0.252	0.339	0.428	--
48	0.135	0.272	0.547	0.817	--	--	--

1.0" THICK 1.0" X4.0" MESH

SPAN (in)	LOAD (Lbs)						
12	100	250	500	750	1000	1500	2000
18	0.012	0.031	0.062	0.092	0.124	0.186	0.248
24	0.028	0.067	0.135	0.202	0.270	0.405	--
36	0.073	0.182	0.365	0.545	--	--	--

1.0" THICK 1.0" X4.0" MESH

SPAN (in)	LOAD (Lbs/Ft.)						
12	100	250	500	750	1000	1500	2000
18	0.010	0.021	0.042	0.062	0.083	0.128	0.170
24	0.025	0.064	0.130	0.195	0.257	0.393	--
36	0.060	0.150	0.300	0.450	--	--	--
48	0.198	--	--	--	--	--	--

1.0" THICK 1.0" X4.0" MESH

SPAN (in)	LOAD (Lbs/Ft.)						
12	25	50	75	100	150	200	250
18	--	--	--	0.010	0.012	0.014	--
24	0.023	0.042	0.065	0.072	0.113	0.155	0.190
36	0.085	0.168	0.242	0.330	--	--	--

Notes:

1. Clear span is 2.0" (50mm) less than the width of grating.
2. Deflection less than 0.01" (0.25mm) and some deflection greater than 0.5" (13mm) are not shown.
3. The Load & Deflection data provided here is for general information only because actual environment and operational conditions are beyond our control. For these reasons, FRP Resource LLC cannot guarantee that actual performance will correspond to the Load & Deflection tables provided here.

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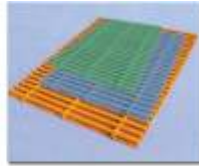
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GLOBALGRID® Grating CHEMICAL RESISTANCE GUIDE

Chemical Environment	Type"V"		Type"I"	
	% Concentration	Temperature °F/°C	% Concentration	Temperature °F/°C
Acetic Acid	50	180/82	50	125/52
Aluminum Hydroxide	100	180/82	100	160/71
Ammonium Chloride	ALL	210/99	ALL	170/77
Ammonium Hydroxide	28	100/38	28	N/R
Ammonium Bicarbonate	50	160/71	15	125/52
Ammonium Sulfate	ALL	210/99	ALL	170/77
Benzene	N/R	N/R	N/R	N/R
Benzoic Acid	SAT	210/99	SAT	150/66
Borax	SAT	210/99	SAT	170/77
Calcium Carbonate	ALL	180/82	ALL	170/77
Calcium Nitrate	ALL	210/99	ALL	180/82
Carbon Tetrachloride	100	150/65	N/R	N/R
Chlorine, Dry Gas	N/A	210/99	N/A	140/60
Chlorine Water	SAT	200/93	SAT	80/27
Chromic Acid	10	150/65	5	70/21
Citric Acid	ALL	210/99	ALL	170/77
Copper Chloride	ALL	210/99	ALL	170/77
Copper Cyanide	ALL	210/99	ALL	170/77
Copper Nitrate	ALL	210/99	ALL	170/77
Ethanol	50	100/38	50	75/24
Ethylene Glycol	100	200/93	100	90/32
Ferric Chloride	ALL	210/99	ALL	170/77
Ferrous Chloride	ALL	210/99	ALL	170/77
Formaldehyde	ALL	150/65	50	75/24
Gasoline	100	180/82	100	80/27
Glucose	100	210/99	100	170/77
Glycerine	100	210/99	100	150/66
Hydrobromic Acid	50	150/65	50	120/49
Hydrochloric Acid	37	150/65	37	75/24
Hydrogen Peroxide	30	150/65	5	100/38
Lactic Acid	ALL	210/99	ALL	170/77
Lithium Chloride	SAT	210/99	SAT	150/66
Magnesium Chloride	ALL	210/99	ALL	170/77
Magnesium Nitrate	ALL	210/99	ALL	140/60
Magnesium Sulfate	ALL	210/99	ALL	170/77
Mercuric Chloride	100	210/99	100	150/66
Mercurous Chloride	ALL	210/99	ALL	140/60
Nickel Chloride	ALL	210/99	ALL	170/77
Nickel Sulfate	ALL	210/99	ALL	170/77
Nitric Acid	20	120/49	20	70/21
Oxalic Acid	ALL	210/99	ALL	75/24
Perchloric Acid	30	100/38	N/R	N/R
Phosphoric Acid	100	210/99	100	120/49
Potassium Chloride	ALL	210/99	ALL	170/77
Potassium Dichromate	ALL	210/99	ALL	170/77
Potassium Nitrate	ALL	210/99	ALL	170/77
Potassium Sulfate	ALL	210/99	ALL	170/77
Propylene Glycol	ALL	210/99	ALL	170/77
Sodium Acetate	ALL	210/99	ALL	160/71
Sodium Bisulfate	ALL	210/99	ALL	170/77
Sodium Bromide	ALL	210/99	ALL	170/77
Sodium Cyanide	ALL	210/99	ALL	170/77
Sodium Hydroxide	25	180/82	N/R	N/R
Sodium Nitrate	ALL	210/99	ALL	170/77
Sodium Sulfate	ALL	210/99	ALL	170/77
Stannic Chloride	ALL	210/99	ALL	160/71
Sulfuric Acid	75	100/38	25	75/24
Tartaric Acid	ALL	210/99	ALL	170/77
Vinegar	100	210/99	100	170/77
Water, Distilled	100	180/82	100	170/77
Zinc Nitrate	ALL	210/99	ALL	170/77
Zinc Sulfate	ALL	210/99	ALL	170/77

All— all concentrations SAT—saturated solution N/R—not recommended N/A—not available

The corrosion resistance data listed above is for general information only. Resin manufacturers have provided test data which indicates that the specific resin can withstand the corrosion conditions listed above. FRP Resource LLC believes the data to be true and accurate but no guarantee is expected or implied as to specific performance. Testing for specific environments is recommended. Our responsibility for claims arising from breach of warranty, negligence or otherwise is limited to the purchase price of the materials sold by FRP Resource LLC.



GLOBALGRID® Pultruded Fiberglass Grating

GLOBALGRID® pultruded grating is assembled by pultruded bearing bar ("I" beam or "T" beam) and cross bar with a high percentage of fiberglass within the laminate, providing durability, excellent unidirectional strength and stiffness. The cross bar is mechanically interlocked and epoxy bonded to the bearing bar.

● Available Resin Types

Type	Resin Base	Description	Corrosion Resistance	Flame Spread Rating
V	Vinyl Ester	Superior corrosion resistance and fire retardant	Excellent	Class 1(25) or less
I	Isophthalic Polyester	Chemical proof corrosion resistance and fire retardant	Very Good	Class 1(25) or less
O	Orthophthalic Polyester	Good corrosion resistance and fire retardant	Good	Class 1(25) or less

Phenolic resin is available upon request.

● GLOBALGRID® Standard Grating Parameters

Type	Thickness	Bar Width	Open Space	Open Area	Wt. /Sq. Ft. (Lbs.)
T1810	1.0"	1.625"	0.375"	18%	2.50
T3510	1.0"	1.625"	0.875"	35%	2.01
I4010	1.0"	0.6"	0.4"	40%	3.50
I5010	1.0"	0.6"	0.6"	50%	2.97
I6010	1.0"	0.6"	0.9"	60%	2.29
I4015	1.5"	0.6"	0.4"	40%	5.12
I5015	1.5"	0.6"	0.6"	50%	4.50
I6015	1.5"	0.6"	0.9"	60%	3.58
T3320	2.0"	1.0"	0.5"	33%	4.19
T5020	2.0"	1.0"	1.0"	50%	3.27

Standard width: 3', 4' and 5'. Standard length: 8', 10', 12' and 20'.

Standard panels come with cross bar spacing of 6" or optional 12" on center.

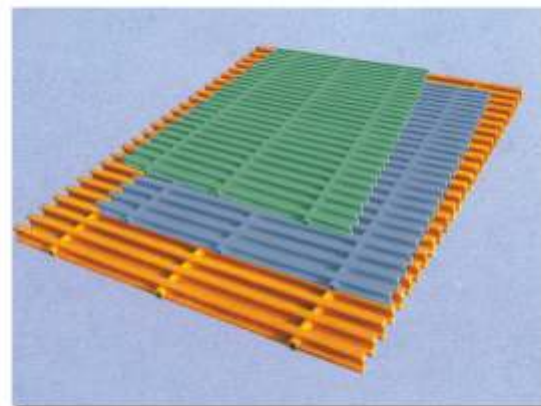
Two surface choices: with or without anti-skid grit surface.

Custom size and open area are available upon request.

Note: Panel size is specified by width x length. Width is the measurement from end to end of the cross bars. Length is always the bearing bar length.

Typical Used Fields:

- Chemical • Refinery • Offshore
- Pulp & Paper • Marine • Plating
- Electronics • Food & Beverage
- Water and Wastewater treatment



GLOBALGRID® Pultruded Profiles

GLOBALGRID® pultruded profiles are used in a wide range of applications, providing a unique combination of corrosion resistance, high strength, dimensional stability and light weight, along with thermal and electric non-conductivity. GLOBALGRID® pultruded profiles provide years of maintenance-free service in areas where steel, aluminum or wood components were traditionally specified. These profiles are often used in highly corrosive applications where stainless steel and other expensive components were once required.

• GLOBALGRID® Pultruded Profiles:

GLOBALGRID® pultruded profiles include I beams, wide flange beams, round tubes, solid round tubes, square tubes, square bars, rectangular tubes, leg angles, channels, flat strips, flat sheets, concrete embedment angles etc. Each shape is available in a number of sizes to accommodate a wide range of design and application requirements. For special uses, custom shapes are available.

• GLOBALGRID® Handrails:

GLOBALGRID® handrail system is an industrial/commercial railing system for stair rails, platforms/walkway handrails and guardrails, the system is particularly well suited for corrosive environments. It provides the look and performance of a custom rail system in an easily assembled cost-effective package.

• GLOBALGRID® Ladders:

GLOBALGRID® ladder and ladder cage system is produced in a premium grade polyester resin system. They are mounted on the sides of tanks in a wide range of industries, particularly for the corrosion environments.

• GLOBALGRID® Cable Trays:

GLOBALGRID® series of cable trays consist of straight trays, connectors, support and accessories. They are good for applications under 10 kv, such as control cables, lighting and others for indoor, and tunnel applications. GLOBALGRID® series of straight cable tray are classified as: Trough, Ladder and Channel types.



GLOBALGRID® Decking

GLOBALGRID® Decking is designed specially for application in the commercial and private marina industry. It is composed of the molded fiberglass grating (5/8" thick) and an integral fiberglass cover plate (1/8" thick) with grit surface. With double thickness for cross bar and bearing bar at every 1' interval, GLOBALGRID® Decking substantially improves the strength and stiffness of Marina decking. The combination of flexibility in cutting, light weight, and ease of installation significantly reduces the project cost because of the reduced labor content and the simplicity of tooling during the installation. Special clip assemblies (Type W) are provided for attaching the GLOBALGRID® decking to the substructure. The GLOBALGRID® decking is the ideal replacement for the conventional concrete, wood and steel decking materials.

Summary Table for GLOBALGRID® Decking vs. Other Choices

	GLOBALGRID® Decking	Wood	Concrete	Plastic Lumber	Aluminum	Steel
Features						
Strength	✓✓✓	X	✓	X	X	✓✓✓
Anti-slip	✓✓✓	✓	X	X	X	X
Corrosion Resistant	✓✓✓	X	✓	✓	✓	X
Moisture Resistant	✓✓✓	X	✓	X	✓✓✓	✓✓✓
Lightweight	✓✓✓	✓✓	X	✓✓	✓✓	XX
Comfort	✓✓	✓	X	✓	✓	X
Materials Cost	✓	✓✓	✓✓	✓	✓	X
Installation						
Fabrication Ease	✓✓✓	✓✓	X	✓✓✓	✓✓	X
Labor/Time	✓✓✓	✓	XX	✓	X	XX
Maintenance						
Annual Cost (Paint)	✓✓✓	XX	X	✓✓	✓	✓
Utility Access	✓✓✓	X	XX	X	XX	XX
Resisting Mildew, fungi and bacteria	✓✓✓	XX	✓✓✓	✓	✓✓✓	✓✓✓



Thickness: 3/4" (5/8" molded grating plus 1/8" grit plate)
 Standard size: 4'X12' and 3'x12'. Custom size available.
 Color: light gray, white, green or custom colors
 Unit Weight: 2.75lbs/sq. Ft.