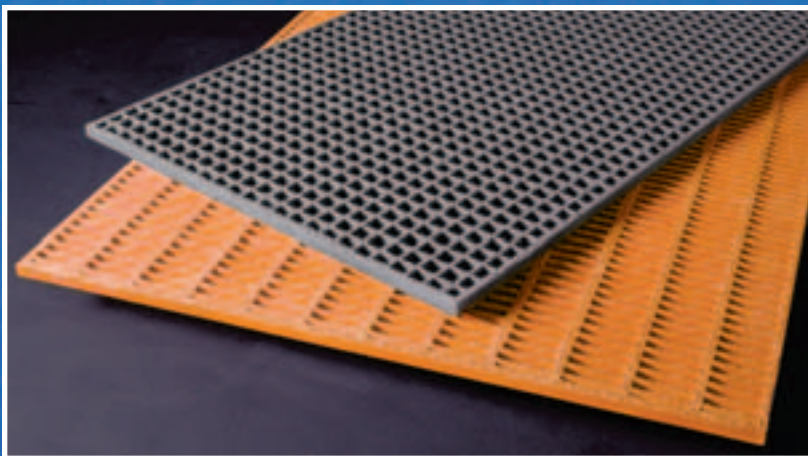




seasafe®

FIBERGLASS GRATING &
STRUCTURAL SYSTEMS

A GIBRALTAR INDUSTRIES COMPANY 

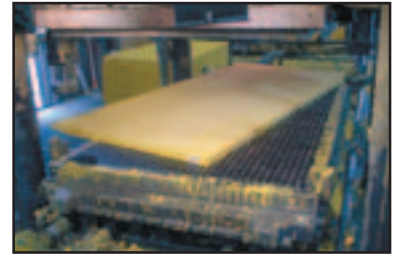


GatorGrate™ Molded Fiberglass Grating



FIBERGLASS GRATING & STRUCTURAL SYSTEMS

A GIBRALTAR INDUSTRIES COMPANY



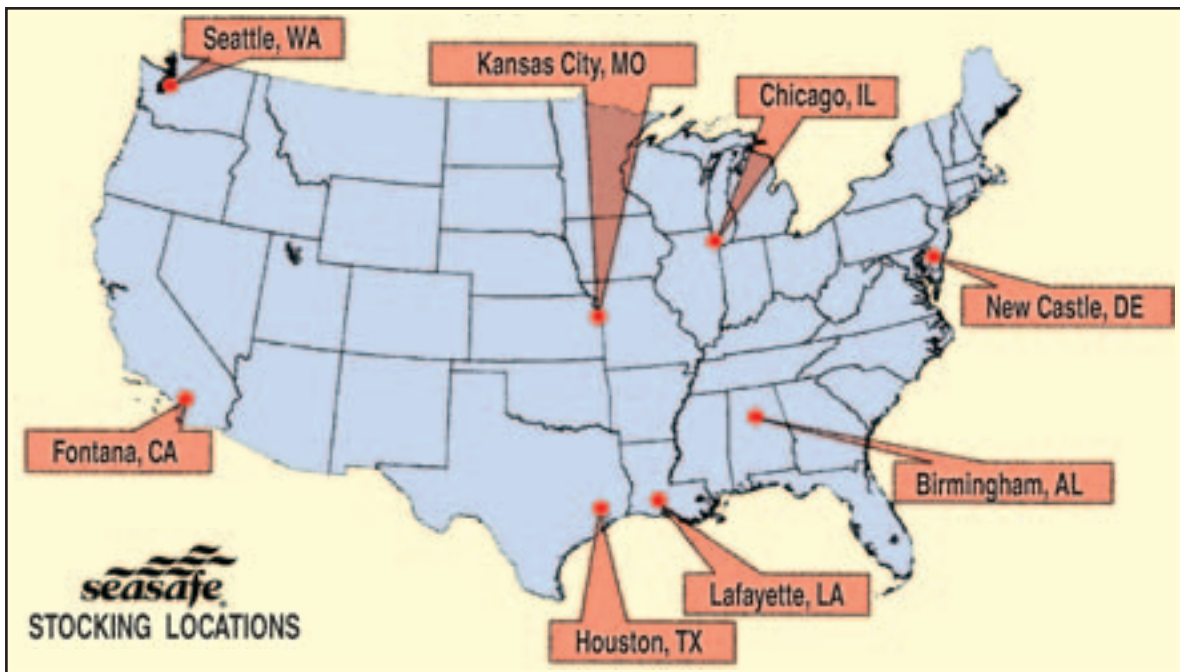
WHO ARE WE?

Seasafe is a manufacturer of molded and pultruded fiberglass reinforced plastic (FRP) products. These include grating, stair treads, floor plates, covered grating, handrails, ladders, cable tray, fiberglass struts and structural shapes. All are available through a network of stocking distributors and representatives. Founded in 1978, plants are in Lafayette, Louisiana and Houston, Texas. Capabilities include design and engineering assistance as well as custom manufacturing. Seasafe started in business as a fabricator, doing jobs no one else wanted to do or was capable of doing. Today, we are an industry leader in both fabrication and manufacturing. Seasafe's Fiber Reinforced Composite Products can replace metallics in virtually any traditional steel application.

AMICO (Alabama Metal Industries Corporation) acquired Seasafe in 1998. In 1999, AMICO acquired International Grating, Inc and put it under the direction of Seasafe. Gibraltar Industries, Inc. (NASDAQ: ROCK) acquired AMICO in 2005. Seasafe continues to grow and innovate, adding products and services to serve a diverse customer base.

THE EASY TO WORK WITH COMPANY...

Our position is very simple. People who pay attention to business and treat their customers the way they'd like to be treated themselves will always be winners. It's why we tell it like it is instead of beating around the bush. It's why customer satisfaction is one of our driving forces. And why improvement is our daily goal. We want you to enjoy doing business with us as much as we enjoy doing business with you.



FEATURES & BENEFITS

CORROSION RESISTANCE = LONG LIFE



GatorGrate's use of premium polyester resins in combination with thoroughly wetted fiberglass roving provides superior corrosion resistance for a majority of industrial applications. For highly aggressive environments, GatorGrate's vinyl-ester resin system (VFR) is recommended. Unlike metal grating, GatorGrate does not rust and never

needs painting. These features, combined with superior corrosion resistance, mean that GatorGrate is a long-lasting, maintenance-free product.

BI-DIRECTIONAL STRENGTH = BETTER LOAD & DEFLECTION PERFORMANCE



GatorGrate's molded one-piece construction offers the user the opportunity to increase design loads by utilizing cross supports. The integral construction distributes loads to both bearing bars and cross bars. (See Seasafe's Tech Support Bulletin #1 "How to Increase the Load-Carrying Capability of GatorGrate," for detailed design information.)

FIRE RETARDANCY = PLANT SAFETY



GatorGrate is available in five standard resin systems, in which two of them – IFR & VFR – meet the Class 1 flame spread rating of 25 or less, per ASTM E-84. If flame spread of 10 or less is required, a custom resin system can be supplied.

LOW MAINTENANCE = REDUCED MAINTENANCE COSTS



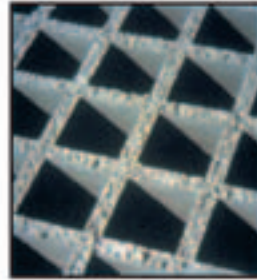
GatorGrate never rusts – never needs painting. And it's very easy to clean: Due to the smooth and tapered bars, debris that enters the top will come out the bottom.

EASE OF FABRICATION = LOWER COSTS



GatorGrate can be cut easily and rapidly with ordinary hand tools, using a masonry, carbide tip blade or diamond edge (it is similar to working with wood or plastic.)

SAFETY = WORKER PROTECTION



GatorGrate's integral grit top surface provides outstanding anti-slip protection for workers – in both dry and wet environments. The grit is embedded in the top surface of each panel prior to curing, to a nominal depth of 3/16". This combination of integral construction, plus depth of the embedded grit, creates a long lasting top surface. Steel, aluminum or FRP

grating with a grit surface applied with a secondary bond will not provide this long service life. (For additional information on the dry/wet Coefficient of Friction values plus other valuable information, please see Seasafe's four-page brochure "Safety & Ergonomic Benefits.")

ERGONOMICS = WORKER COMFORT



Ergonomics is simply the science of making the workplace more comfortable for the worker. GatorGrate's built-in resiliency provides outstanding comfort versus the unyielding, tiring characteristics of metal grating or concrete floors. Industrial GatorGrate applications, such as work platforms, have proven ergonomic benefits—less worker fatigue and increased safety. (See Seasafe's four-page brochure "Safety & Ergonomic Benefits" for additional information and photos of GatorGrate work platforms.)

LIGHTWEIGHT = EASY TO INSTALL & MAINTAIN



GatorGrate weighs about one-quarter as much as steel grating. All panel sizes can be easily handled by two workers, so there is no need for costly material handling equipment. When installed GatorGrate needs to be moved for cleaning, maintenance or utility access, there is less chance for back injuries.

AVAILABILITY = JUST-IN-TIME DELIVERY



GatorGrate panels are stocked locally by a network of responsive, knowledgeable Seasafe Stocking Representatives. Since grating is often one of the last items installed on a project – same-day availability can be extremely valuable.

CHEMICAL COMPATIBILITY – A detailed table of chemical compatibility for GatorGrate products based on resin manufacturer's data is available. This table provides maximum allowable concentrations and temperatures. Call us at **800-326-8842** or fax **337-406-8880** and ask for Seasafe Tech Support Bulletin #3.

GATORGRATE™ - OPEN MOLDED GRATING



GatorGrate molded fiberglass grating is a one-piece, reinforced polyester or vinylester (FRP) grating, available in standard panels and sizes. It is manufactured by interweaving continuous, thoroughly wetted, fiberglass strand with thermosetting resin systems. Standard panels are available in three resin systems, two top surface configurations, four panel sizes and five standard grid patterns. Typical applications include floor systems, walkways, work platforms, stairs, ramps, trench covers & catwalks. GatorGrate has been successfully used in many industries – including food processing, beverage, chemical processing, water & wastewater treatment, metal finishing, pulp/paper, transportation, pharmaceutical, textile, oil/gas & mining/smelting/refining.

“How To Write An Outstanding Grating Specification” is available. Just ask for it.

STANDARD RESIN SYSTEMS

Standard GatorGrate resin systems are made from premium grade resins. The three standard resin systems are:

PFR - Polyester resin system with Class 1 fire retardancy, per ASTM E-84. Moderate corrosion resistance.

IFR Plus - Premium grade Isophthalic Polyester resin system with Class 1 fire retardancy per ASTM E-84. Excellent corrosion resistance.

PFR & IFR Resin systems meet USDA standards for incidental food contact.

Available Colors For PFR & IFR are green, yellow, dark grey, & light gray.

VFR - Vinyl Ester resin system with Class 1 fire retardancy, per ASTM E-84. For maximum corrosion resistance in Seasafe's standard resin systems, specify VFR. Available colors: orange & dark gray.

Other resin systems and colors are available on special order. All GatorGrate resin systems incorporate an ultraviolet (UV) inhibitor.

STANDARD GRID PATTERNS

GatorGrate molded grating is available in five standard grid patterns. Grid dimensions are center line to center line.

1" thick, 1" x 4", rectangular grid

Bearing bars 0.3125" thick

Cross bars 0.5625" thick

Open area of 60%

Designation is RM-1410

1½" thick, 1" x 6", rectangular grid.

Bearing bars 0.375" thick

Cross bars 0.375" thick

Open area of 63%

Designation is RM-1615

1" thick, 1½" x 1½", square grid.

Bearing bars 0.2350" thick

Cross bars 0.2350" thick

Open area of 70%

Designation is GG-1510

1½" thick, 1½" x 1½", square grid.

Bearing bars 0.250" thick

Cross bars 0.250" thick

Open area of 70%

Designation is GG-1515

2" thick, 2" x 2", square grid.

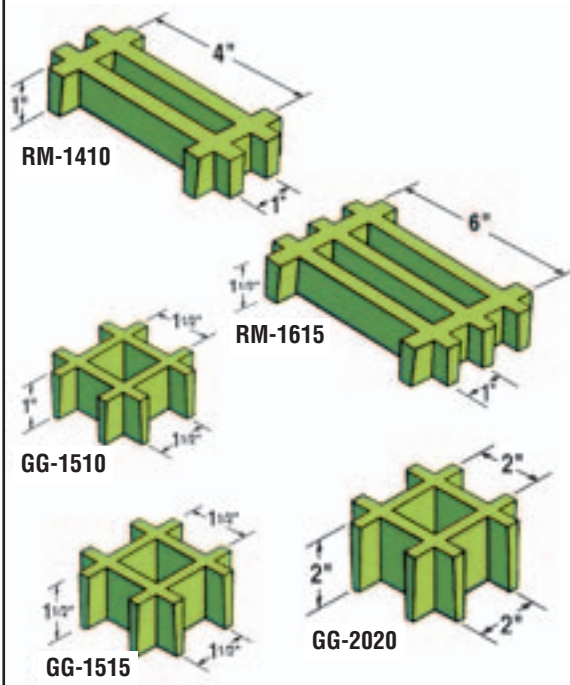
Bearing bars 0.3125" thick

Cross bars 0.3125" thick

Open area of 72%

Designation is GG-2020

STANDARD GRID DIMENSIONS



AVAILABLE TOP SURFACES

Grit top - integral, embedded silica sand, to a nominal depth of 3/16"

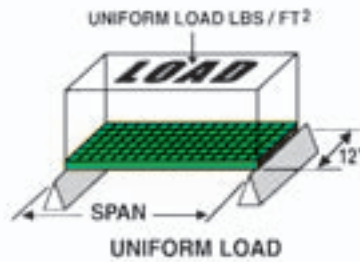
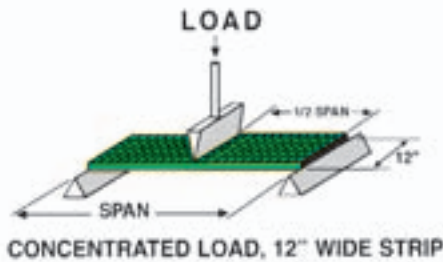
Meniscus - concave, half-moon cross section

Applied Grit - epoxy grit bonded to meniscus top panels

STANDARD PANEL SIZES & WEIGHTS

RM-1410	4' wide x 12' long	170 lbs
RM-1615	4' wide x 12' long	218 lbs
GG-1510	3' wide x 10' long	91 lbs
	4' wide x 12' long	140 lbs
GG-1515	3' wide x 10' long	124 lbs
	4' wide x 8' long	131 lbs
	4' wide x 12' long	193 lbs
	5' wide x 10' long	203 lbs
GG-2020	4' wide x 12' long	205 lbs

LOAD & DEFLECTION DATA



The Load and Deflection Data provided in these tables are intended guidelines only, to help you determine the proper grating size for your application. The use of different resin systems and top surface options can produce variations up to 15% in these values. Because the product will be used in environments and under operating conditions that are not within our control, we cannot guarantee the performance of the grating.

FRP products have low modulus of elasticity but high tensile strength, therefore loads are generally limited to the allowable deflection determined by the end user. The following data are based on tests utilizing panels supported on two sides only. Additional stiffness can be achieved by using cross supports (see Seaseaf's Tech Support Bulletin #1).

RM-1410, Rectangular, 1" Thick (1" x 4")

Clear Span	Concentrated Load, in Lbs., Deflection in Inches							.250" Defl.	.375" Defl.
	100	250	500	750	1000	1500	2000		
18"	0.025	0.064	0.127	0.191	0.255	0.382	**	980	1470
24"	0.057	0.143	0.285	0.428	**	**	**	430	650
36"	0.167	0.418	**	**	**	**	**	150	220
48"	0.357	**	**	**	**	**	**	70	100

RM-1410, Rectangular, 1" Thick (1" x 4")

Clear Span	Uniform Load, in Lbs./Ft. ² , Deflection in Inches						.250" Defl.	.375" Defl.
	50	75	100	150	200	250		
18"	0.012	0.018	0.024	0.036	0.048	0.060	1030	1540
24"	0.038	0.057	0.075	0.113	0.151	0.189	330	490
36"	0.139	0.209	0.278	0.417	**	**	90	130
48"	0.420	**	**	**	**	**	30	40

RM-1615 Rectangular, 1 1/2" Thick (1" x 6")

Clear Span	Concentrated Load, in Lbs., Deflection in Inches							.250" Defl.	.375" Defl.
	100	200	300	500	750	1000	1500		
12"	0.013	0.024	0.035	0.056	0.078	0.097	0.128	3982	7097
18"	0.022	0.038	0.052	0.078	0.107	0.132	0.176	2438	4532
24"	0.031	0.052	0.071	0.110	0.158	0.201	0.283	1292	2088
30"	0.042	0.077	0.111	0.180	0.258	0.332	0.476	724	1149
36"	0.082	0.114	0.182	0.255	0.367	0.476	**	490	768
42"	0.096	0.171	0.255	0.423	**	**	**	293	442
48"	0.116	0.227	0.337	**	**	**	**	220	334

RM-1615 Rectangular, 1 1/2" Thick (1" x 6")

Clear Span	Uniform Load, in Lbs./Ft. ² , Deflection in Inches							.250" Defl.	.375" Defl.
	50	75	100	150	300	500	1000		
12"	0.003	0.005	0.006	0.009	0.019	0.031	0.062	4046	6069
18"	0.007	0.010	0.013	0.020	0.039	0.065	0.131	1915	2872
24"	0.013	0.020	0.027	0.040	0.080	0.133	0.285	943	1415
30"	0.027	0.040	0.054	0.081	0.161	0.289	**	465	698
36"	0.048	0.072	0.096	0.143	0.287	0.478	**	262	393
42"	0.093	0.140	0.196	0.278	**	**	**	134	202
48"	0.142	0.214	0.285	0.427	**	**	**	88	132

GG-1510 Square, 1" Thick (1 1/2" x 1 1/2")

Clear Span	Concentrated Load, in Lbs., Deflection in Inches							.250" Defl.	.375" Defl.
	100	250	500	750	1000	1500	2000		
18"	0.039	0.098	0.196	0.293	0.391	**	**	640	960
24"	0.093	0.232	0.464	**	**	**	**	270	410
36"	0.313	**	**	**	**	**	**	80	120
48"	**	**	**	**	**	**	**	35	50

GG-1510 Square, 1" Thick (1 1/2" x 1 1/2")

Clear Span	Uniform Load, in Lbs./Ft. ² , Deflection in Inches						.250" Defl.	.375" Defl.
	50	75	100	150	200	250		
18"	0.018	0.028	0.037	0.055	0.073	0.092	695	1035
24"	0.058	0.087	0.116	0.174	0.232	0.290	220	330
36"	0.293	0.440	**	**	**	**	45	65
48"	**	**	**	**	**	**	15	20

GG-1515 Square, 1 1/2" Thick (1 1/2" x 1 1/2")

Clear Span	Concentrated Load, in Lbs., Deflection in Inches							.250" Defl.	.375" Defl.
	100	250	500	750	1000	1500	2000		
18"	0.012	0.030	0.060	0.090	0.120	0.181	0.241	2060	3090
24"	0.029	0.071	0.143	0.214	0.285	0.428	**	860	1290
36"	0.096	0.241	0.482	**	**	**	**	260	385
48"	0.228	**	**	**	**	**	**	110	160
60"	0.446	**	**	**	**	**	**	55	85

GG-1515 Square, 1 1/2" Thick (1 1/2" x 1 1/2")

Clear Span	Uniform Load, in Lbs./Ft. ² , Deflection in Inches						.250" Defl.	.375" Defl.
	50	75	100	150	200	250		
18"	0.006	0.008	0.011	0.017	0.023	0.028	2170	3260
24"	0.018	0.027	0.036	0.054	0.071	0.089	685	1030
36"	0.090	0.135	0.181	0.271	0.361	0.451	135	205
48"	0.285	0.428	**	**	**	**	45	65
60"	**	**	**	**	**	**	**	**

GG-2020 Square, 2" Thick (2" x 2")

Clear Span	Concentrated Load, in Lbs., Deflection in Inches							.250" Defl.	.375" Defl.
	100	250	500	750	1000	1500	2000		
18"	0.008	0.020	0.040	0.060	0.080	0.120	0.160	2950	4420
24"	0.017	0.043	0.086	0.129	0.171	0.257	0.343	1455	2200
36"	0.048	0.120	0.240	0.360	0.480	**	**	520	785
48"	0.110	0.275	**	**	**	**	**	230	340
60"	0.229	**	**	**	**	**	**	110	165

GG-2020 Square, 2" Thick (2" x 2")

Clear Span	Uniform Load, in Lbs./Ft. ² , Deflection in Inches						.250" Defl.	.375" Defl.
	50	75	100	150	200	250		
18"	0.004	0.006	0.008	0.012	0.016	0.020	2840	4260
24"	0.011	0.016	0.021	0.032	0.043	0.054	1165	1745
36"	0.045	0.068	0.090	0.135	0.180	0.225	280	410
48"	0.138	0.206	0.275	0.413	**	**	90	135
60"	0.358	**	**	**	**	**	35	55

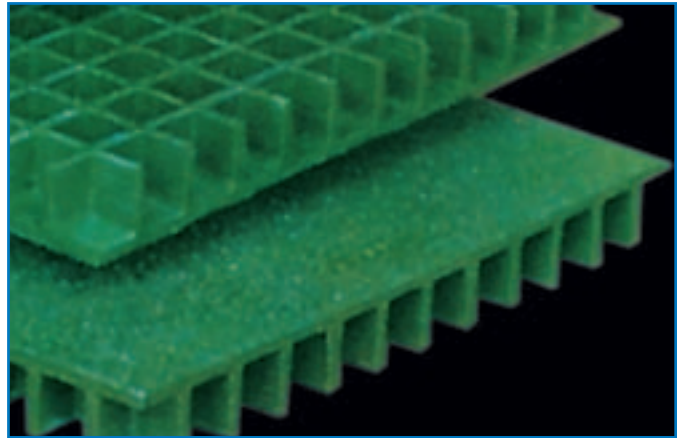
* Clear span is 2" less than width of grating.

* Clear span is 2" less than width of grating.

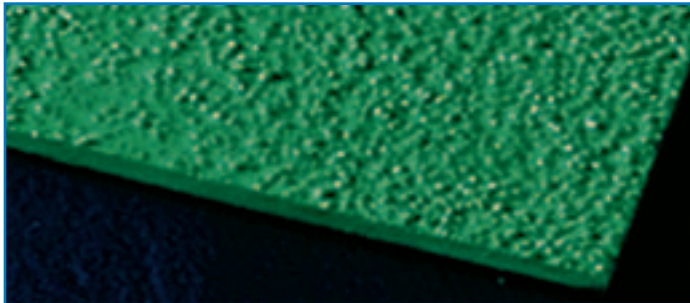
GATORPLATE & COVERED MOLDED GRATING

GatorPlate™ floor plate is perfect for fixing slippery spots or in large slippery areas. The anti-slip surface helps reduce slips & falls even when hazardous liquids are present.

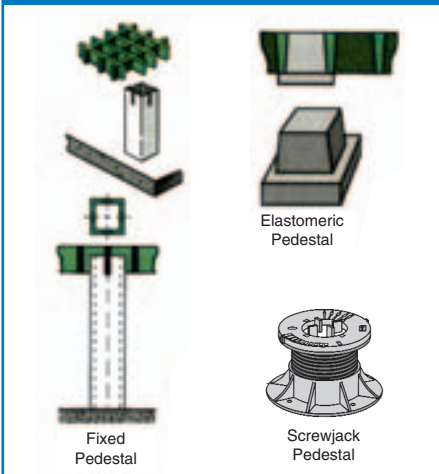
Seasafe grating available with GatorPlate attached to the top for a smooth walking surface. Covered grating is used for odor control, elevated walkways to insure that nothing drops thru the walkway onto the surface below.



Note: Covered molded grating has a varying degree of “out-of-flat.” In most applications, this condition will require correction with hold down hardware.



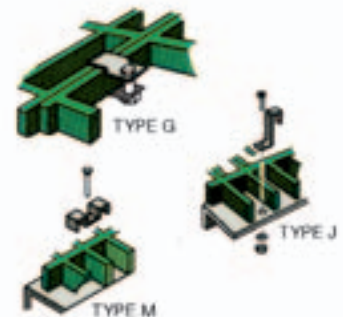
Pedestals



Hardware Clips

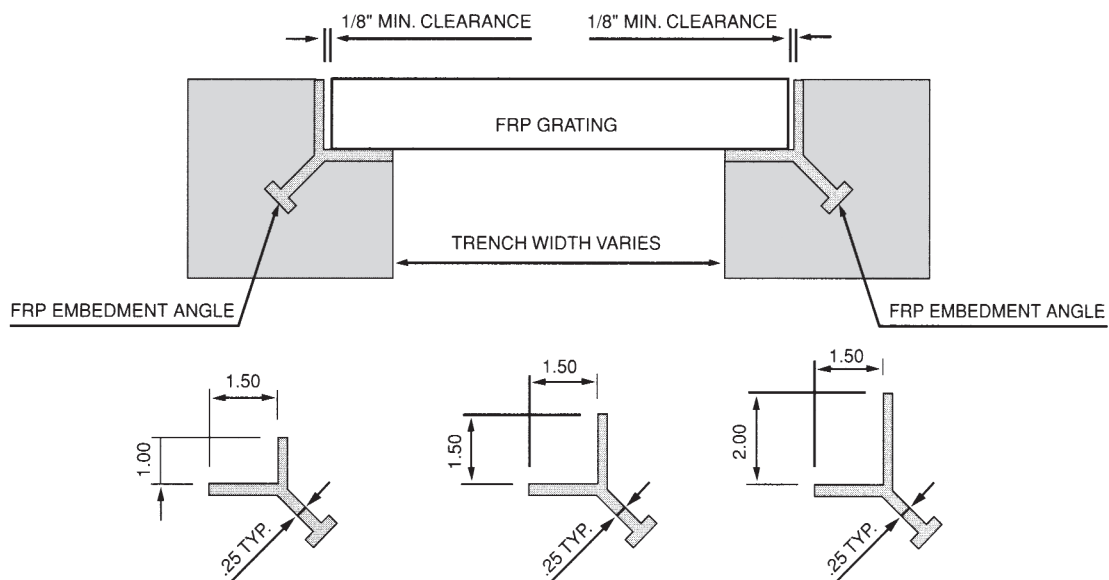
Hardware (Clips)

	Type	HD10	1510	1515	2020
End Panel	"G"	X	X	X	X
Hold Down	"J"	X	X	X	X
Hold Down	"M"	X	X	X	X



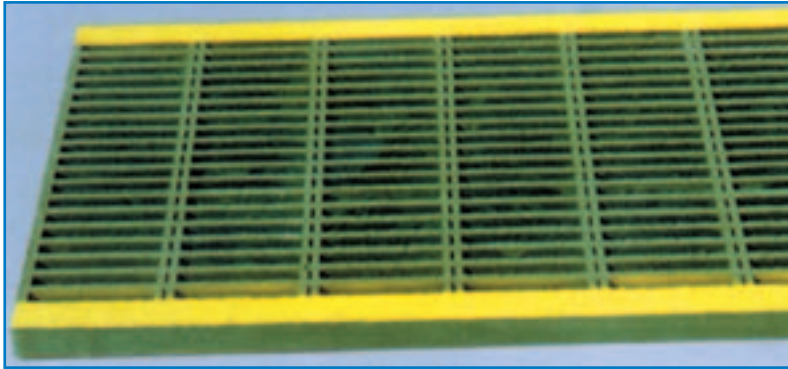
Type 316 stainless steel clips are available with or without nut, bolt or washer. Other metals available upon request. For maximum safety, we recommend that all grating be fastened to support structure. When ordering clips, please specify type of grating.

Embedment Angle



GATORGRATE STAIR TREADS & STAIR TREAD COVERS

Cut your own stair treads from GatorGrate Stair Tread panels.



Ease of cutting - the panel design incorporates cutting “slots” every six inches so treads can be cut inexpensively, quickly and accurately, resulting in banded treads on both ends.

Economy - the 22 3/4” x 144” panel size offers numerous combinations to maximize the number of treads (less wastage = less cost).

Chemical Compatibility - A detailed table of chemical compatibility for GatorGrate products based on resin manufacturers’ data is available. This table provides maximum allowable concentrations and temperatures. Call us at **800-326-8842** or fax **337-406-8880** and ask for Seasafe Tech Support Bulletin #3.

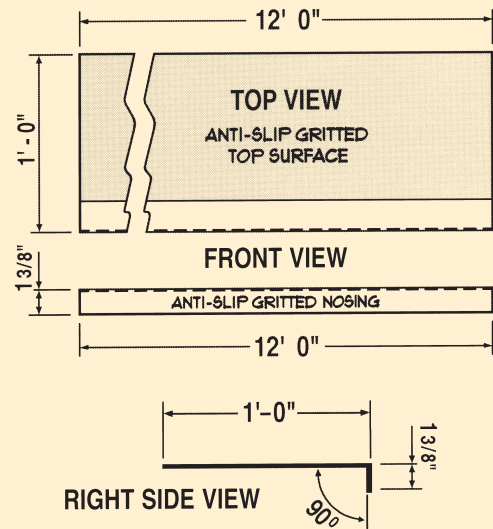


Stair Tread Covers

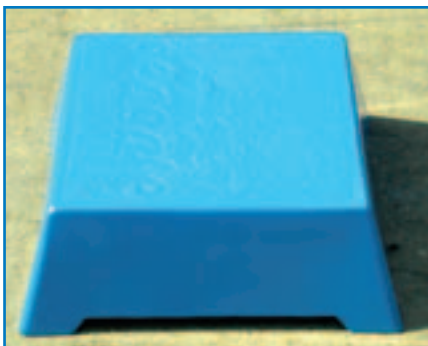


Fiberglass Stair Tread Covers are a cost-effective way to improve stairway safety for your workers.

Made with corrosion resistant resin with a low flame spread rating. Panels include an integral grit top surface and a woven fiberglass mat.



Work Station Platforms



Work Stands by Seasafe are designed for ergonomics and safety. These work stands are used in food processing, beverage, metal finishing, pharmaceutical, and many other industries. The flexible anti-skid surface provides less strain on your feet, legs, and lower back area.

*Contact Seasafe for availability.



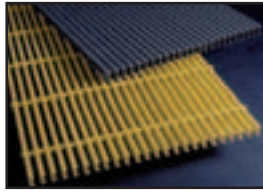
SEASAFE FRP PRODUCTS

Fiberglass Structural Systems Seasafe structural systems offer a variety of high-strength, maintenance-free products. Ask about our custom capabilities including design and engineering, as well as manufacturing.

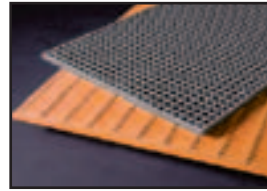
GRATING

GatorDeck Pultruded Grating – Competitively priced – ideal for long spans

GatorGrate Molded Grating – Bi-directional strength – integral anti-slip top surface



GatorDeck
Pultruded Grating



GatorGrate
Molded Grating



Fabricated
GatorGrate

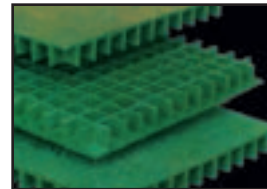
FLOOR PLATE

GatorPlate Floor Plate – Anti-slip surface for slippery spots or large areas

GatorGrate Covered Grating – Combines grating and floor plate in one integral panel



GatorPlate Molded
Floor Plate



Seasafe Covered
Grating



Cable Tray
Systems

CABLE TRAY SYSTEMS

STAIR TREADS & COVERS

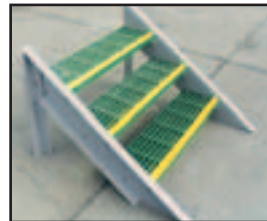
GatorDeck Pultruded Stair Treads – Economical – 6 span widths, 2 resins, 2 colors

GatorGrate Molded Stair Treads – Carries more load than other molded stair treads

Seasafe Stair Tread Covers – Overlay wooden, metal or concrete stairs for added safety



GatorDeck Pultruded
Stair Treads



GatorGrate Molded
Stair Treads

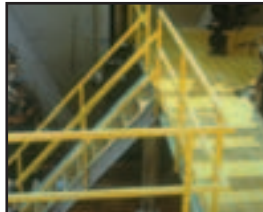


Seasafe Stair Tread
Covers

HANDRAILS – **Seasafe** Pultruded Handrails built to OSHA standards

LADDERS – **Seasafe** Safety Ladders & Caged Ladders – Positive traction and easy gripping for safety

STRUCTURAL SHAPES – **Seasafe** Custom Shapes plus I-beams, wide flange beams, channels, bars, round and square tubes



Seasafe Pultruded
Handrails



Seasafe Ladders
& Caged Ladders



Fabricated Structural
Shapes



SEE US ON THE WEB

Site covers 50 pages and includes a complete set of model grating specifications for each of three types of grating, all in downloadable pdf format. Load and deflection tables (pdf) are provided, together with standard panel sizes and weights, plus resin color and surface options. Site includes details on full line of Seasafe products.

www.seasafe.com



seasafe
FIBERGLASS GRATING &
STRUCTURAL SYSTEMS

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