

McNICHOLS CO.



**FIBERGLASS
GRATING**



Full Panels

Cut Lengths

Molded

Structural Shapes & Plate

Pultruded

Platform & Handrail Systems

Fiberglass Fittings

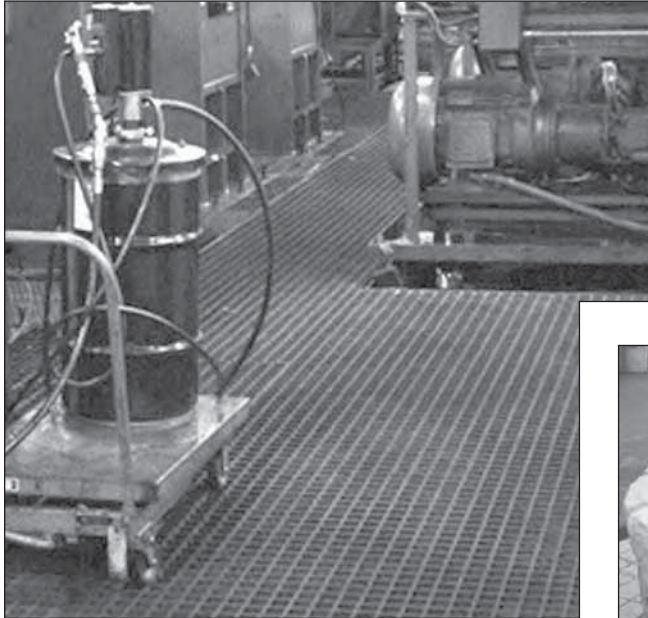
Ladder Systems

Stair Treads

Trench Drain System

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Corrosion resistance for the floor of this factory was provided by Square Molded Fiberglass Grating.



Square Molded Fiberglass Grating was used to make a cover to keep debris out of this stone well.

Local Service Center	Phone	Fax	Location
ATLANTA	770-499-1441	770-499-9559	1980 Shiloh Road NW Bldg 6 #300, Kennesaw, GA 30144-6427
BALTIMORE	301-362-0200	301-362-0448	9070 Junction Drive #M, Annapolis Junction, MD 20701-1141
BOSTON	978-663-5500	978-663-5508	33 High Street, North Billerica, MA 01862-2415
CHARLOTTE	704-921-2225	704-921-2228	2307 Distribution Center Drive #F, Charlotte, NC 28269-4232
CHICAGO	847-635-5100	847-635-1115	251 Wille Road #C, Des Plaines, IL 60018-1861
CINCINNATI	513-731-8811	513-731-8812	3470 E. Kemper Road, Cincinnati, OH 45241-2007
CLEVELAND	216-587-4000	216-587-4004	4889 NEO Parkway, Cleveland, OH 44128-3195
DALLAS	214-349-3150	214-553-8529	3540 W. Miller Road, #240, Garland, TX 75041-6014
HOUSTON	281-443-8400	281-209-1999	16405 Air Center Boulevard #100, Houston, TX 77032-5133
KANSAS CITY <i>New!</i>	913-310-0599	913-310-0119	15341 W. 100th Terrace, Lenexa, KS 66219-1294 <i>New!</i>
LOS ANGELES	562-921-3344	562-921-1015	14108 Arbor Place, Cerritos, CA 90703-2404
MINNEAPOLIS	651-633-8822	651-633-8818	22 Fifth Avenue NW, New Brighton, MN 55112-3237
NJ/NYC Area	732-846-8333	732-846-5555	2 Home News Row, New Brunswick, NJ 08901-3602
PHOENIX	602-235-9733	602-235-9734	5525 W. Latham Street, #7, Phoenix, AZ 85043-1601
SAN FRANCISCO	510-887-7778	510-887-7779	19226 Cabot Boulevard, Hayward, CA 94545-1143
SEATTLE	253-939-4747	253-939-7809	1221-A 29th Street NW, Auburn, WA 98001-2431
TAMPA	813-243-1800	813-243-1888	9401 Corporate Lake Drive, Tampa, FL 33634-2359

ADMINISTRATION HEADQUARTERS	813-282-3828	813-287-1066	PO Box 30300, Tampa, FL 33630-3300 2502 N. Rocky Point Drive (Ste. 950, mail only), Tampa, FL 33607-1447
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Field Sales Office	Phone	Fax	Field Sales Office	Phone	Fax
BIRMINGHAM	205-581-5200	205-581-5205	HARTFORD	860-953-3535	860-953-3636
BUFFALO	716-688-5005	716-688-5532	MILWAUKEE	414-570-1881	414-570-1882

WORLDWIDE SERVICE

United States • Caribbean
1-800-237-3820

International
1-813-243-1800

International Fax
1-813-243-1888

McNICHOLS CANADA

245 King George Road, Suite 122
 Brantford, ON N3R 7N7 Canada

1-800-237-3820
905-521-4445

Fax
905-521-4447

McNICHOLS MEXICO

We speak Spanish!
 ¡Hablamos español!

01-800-822-3005
001-800-237-3820

E-mail: ventas@mcnicholsmexico.com

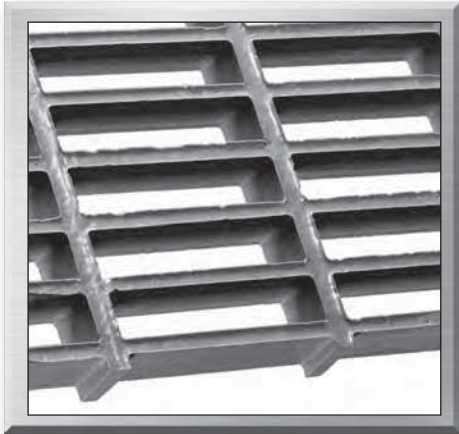
E-mail: sales@mcnichols.com



Charge your order today!



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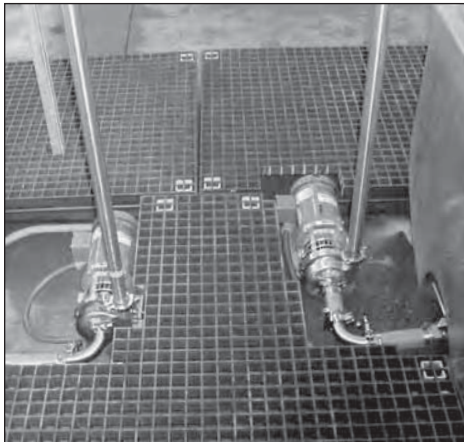


Molded Rectangular series—non grit shown.

Construction...

McNICHOLS® Molded Fiberglass Grating is a strong mesh grating panel which allows efficient on-site cutting to minimize grating waste. It is molded in one piece with a plain concave skid-resistant walking surface. Grit surfaces are also available upon request.

McNICHOLS® Molded Grating is the chemical resistant flooring choice for many industrial applications. Load bearing bars in both directions allow for use without continuous side support.



Square Molded Fiberglass Grating was used to make walkways around these chemical baths.

Corrosion Resistant

Fire Retardant

Low in Maintenance

Lightweight

Low in Conductivity

Bidirectional Load Bearing

Cost Effective

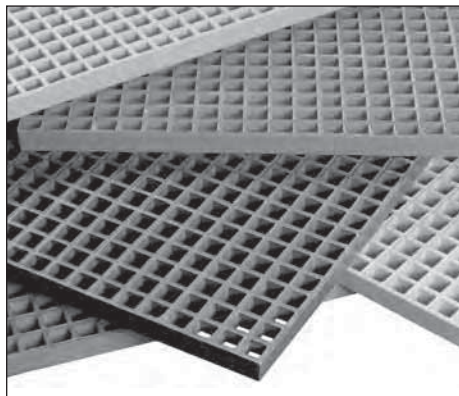
Impact Resistant

Strength...

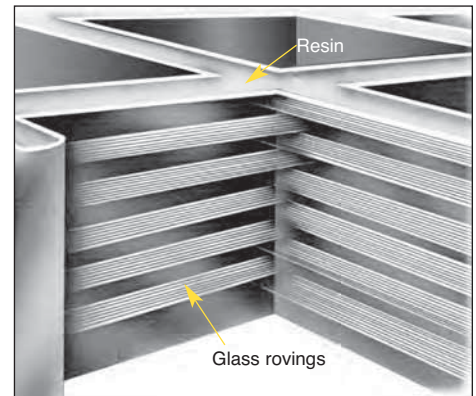
Molded Fiberglass Grating is significantly lighter in weight than metal gratings. The high resin content of 65% provides long maintenance free performance. A higher safety factor is achieved by designing in a higher glass content at the bottom of the grating for greater tensile strength.

McNICHOLS® Molded Grating is composed of fiberglass rovings combined with a choice of resin systems. Special UV inhibitor available.

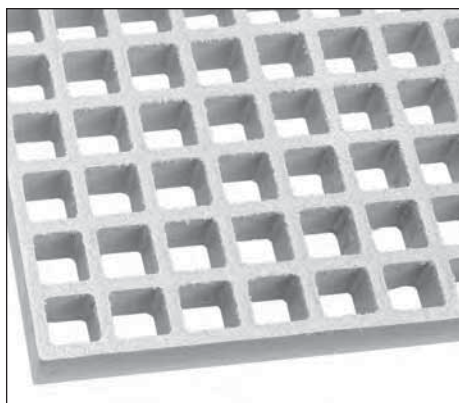
Resin guide on p. 5 for additional assistance in making your product selection.



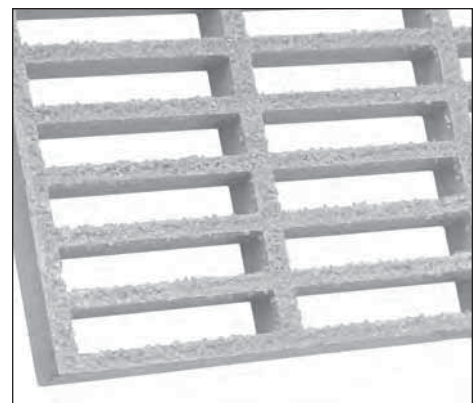
Molded Square series—non grit shown.



Drawing shows Molded Grating construction.



Molded Square series with grit shown.



Molded Rectangular series with grit shown.

Industries Served

Aerospace
Chemical
Power Plants
Marine

Water & Wastewater
Pipeline
Meat Processing
Refining

Plating
Food/Beverage
Airframe Manufacturing
Electronic Manufacturing

Pulp & Paper
Fluid Storage
Cooling Towers
Mass Transit

Automotive
Metal Finishing
Mining
Industrial Equipment

Pultruded Design Considerations

Low Maintenance

Fire Retardant

Corrosion Resistant

Lightweight

Non-Sparking

Structurally Strong

Low Thermal Conductivity

Rigid

Construction...

McNICHOLS® Pultruded Fiberglass Grating is a composite of fiberglass reinforcements (fibers and mat) and a thermosetting resin system, formed by the pultrusion manufacturing process which produces many of the outstanding characteristics of the product.

Pultruded Grating bearing bars use both longitudinal (glass roving) and multidirectional (glass mat) reinforcements and a synthetic surfacing veil to provide unequalled strength and

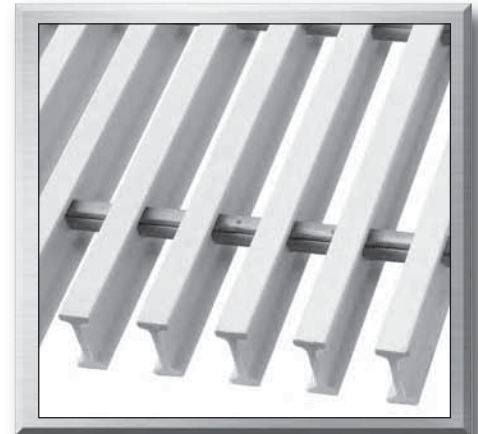
corrosion resistance. The densely packed core of continuous glass rovings gives the bar strength and stiffness in the longitudinal direction while the continuous glass mat provides strength in the transverse direction and prevents chipping, cracking and lineal fracturing. The synthetic surfacing veil provides a 100% pure resin surface for added corrosion resistance and UV protection.

Strength...

Pultruded Grating products offer superior strength and stiffness. Since glass is the key contributor for the structural performance, pultruded offers the highest strength to unit weight ratio.

Corrosion Resistance...

Pultruded Grating's corrosion resistance is superior to stainless steel, aluminum and galvanized gratings.



MS I-6015 shown without grit.

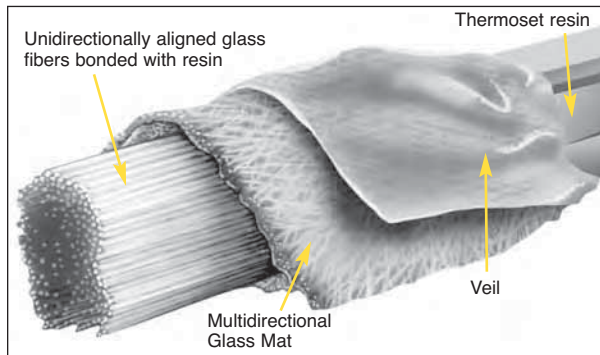
Fabrication Features...

Many plank sizes allow for greater use versatility with longer spans which may help reduce scrap loss.

Surface Texture...

Pultruded Grating may be ordered with or without an anti-skid grit surface. A variety of grit material and textures can be ordered. **Pultruded Grating** should be the product of choice where strength and stiffness are paramount in structural applications where minimum deflection under high loads is required.

Resin guide on p. 5 for additional assistance in making your product selection.

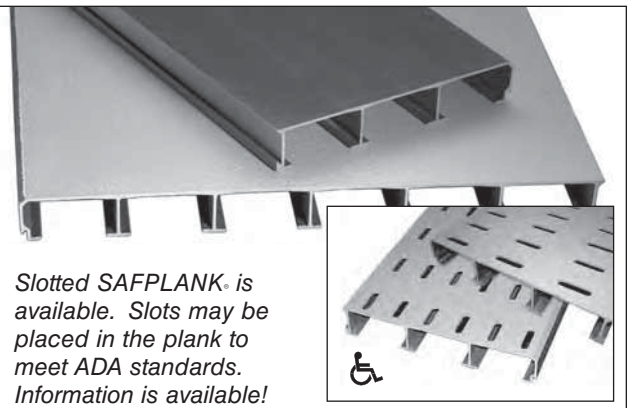


SAFPLANK® Fiberglass Plank System

Construction...

SAFPLANK® is a composite of fiberglass reinforcements (glass and mat) and a thermoset resin system. The planks are produced using the pultrusion process. This high strength system of interlocking fiberglass planks forms a continuous solid surface

which may be used to replace wood, aluminum or steel planks in environments where corrosion or rotting creates costly maintenance problems or unsafe conditions. Typical applications include: Cooling Tower Decking, Odor Control Covers, Windwalls, Roofing Walkways, Cellular Wall Panels, and more.



Slotted SAFPLANK is available. Slots may be placed in the plank to meet ADA standards. Information is available!

Industries Served

- | | | | | |
|--------------|--------------------|--------------------------|----------------|----------------------|
| Aerospace | Water & Wastewater | Plating | Pulp & Paper | Automotive |
| Chemical | Pipeline | Food/Beverage | Fluid Storage | Metal Finishing |
| Power Plants | Meat Processing | Airframe Manufacturing | Cooling Towers | Mining |
| Marine | Refining | Electronic Manufacturing | Mass Transit | Industrial Equipment |

Order Guide and Stock List

NOTE: Stock items are not carried in all locations, and on-hand quantities are subject to change. Stock outages are possible.

HOW TO ORDER/SPECIFY

Simply call 1-800-237-3820, and we will be ready to help you with your needs. We can process your inquiry or order faster if you have the following information available when you call.

CONSIDER:

1. Application or use of product
2. Physical requirements
 - a. exposure to chemicals and/or extreme temperatures
 - b. fire retardant rating (resin chart p. 5)
 - c. loading requirements, span and support systems (please refer to load tables)

PLEASE SPECIFY:

3. **“McNICHOLS® Quality Fiberglass Grating”**

4. Type:

- a. Molded—rectangular or square pattern—floor plate
- b. Pultruded—I-Bar, T-Bar, or Rectangular Bar—floor plate

Cut pieces may or may not have stubs.

5. **Resin:** (refer to chart p. 5) Minimums may apply—please inquire
6. **Quantity:** number of panels, areas or treads—full size or cut pieces required
7. **Height:**
 - a. Molded—panel or plate height
 - b. Pultruded—bar height
8. **Width:** width of panel, plank, deck, plate or pieces as applicable
9. **Length:** length of panel, plank, deck, plate or pieces as applicable
10. **Surface:** plain or with grit
11. **For I-, T-, or Rectangular Bar planks:** indicate spacing between bar centers and cross bar centers. Indicate span.
For Rectangular/Square Molded panels: indicate span.
12. **Special Fabrication:** cut-outs, etc.
13. **Fasteners:** type and size (see p.19)



TO PLACE AN ORDER CALL:

1-800-237-3820

FAX: See page 1 for nearest service center.

FIBERGLASS PRODUCTS STOCK LIST

Item	Height	Size	Resin	Color	
PULTRUDED I-BAR					
MS I-4010	1"	3' x 20'	SPF	Gray	
MS I-4015	1-1/2"	3' x 20'	SPF	Gray	
MS I-6010	1"	3' & 4' x 20'	SPF	Gray, Yellow	
MS I-6015	1-1/2"	3' & 4' x 20'	SPF	Gray, Yellow	
MS I-6015	1-1/2"	2', 4' & 5' x 20'	SVF	Gray	
MS I-6515	1-1/2" (8" CB)	3' x 20'	SPF	Yellow	
PULTRUDED T-BAR					
MS T-1210	1"	Please inquire	SPF	Gray	
MS T-1720	2"	Please inquire	SVF	Yellow	
MS T-1810	1"	3' x 20'	SPF	White, Gray	
MS T-1810	1"	4' x 20'	SPF	Gray	
MS T-3810	1"	Please inquire	SPF	Gray	
MS T-3810	1" (12" CB)	3' x 4.5'	SPF	Gray	
MS T-5020	2"	3' x 20'	SPF	Yellow	
MOLDED SQUARE MESH					
MS S-150	1-1/2"	4' x 12'	SFF	Gray, Green	
MS S-200	2"	4' x 12'	SFF	Green	
MS S-100	1"	3' x 10', 4' x 8', 4' x 12'	SGF	Gray, Green	
MS S-100	1" no grit	3' x 10', 4' x 8', 4' x 12'	SGF	Gray	
MS S-100	1"	4' x 12'	SGF	Yellow	
MS S-100	1" no grit	4' x 8' & 12'	SGF	Yellow	
MS S-150	1-1/2"	3' x 10', 4' x 12'	SGF	Gray, Yellow	
MS S-150	1-1/2" no grit	3' x 10', 4' x 12'	SGF	Gray, Yellow	
MS S-150	1-1/2"	4' x 12'	SGF	Green, Red	
MS S-200	2"	4' x 12'	SGF	Gray	
MS S-150	1-1/2"	4' x 12'	SVF	Gray	
MS M-150	1-1/2" Mini Grid™	4' x 12'	SGF	Green	
MOLDED RECTANGULAR MESH					
MS R-100	1" x 4"	12' x 3', 4'	SFF	Green	
MS R-150	1-1/2" x 6"	4' x 12'	SFF	Green	
MS R-100	1" x 4"	10' x 3'	SGF	Yellow, Dk.Gray	
MS R-100	1" x 4" no grit	8' x 4'	SGF	Gray	
MS R-100	1" x 4" grit, no grit	8' x 4'	SPF	Green	
STAIR TREAD COVER					
S-STCV9 Tread Cover	9" wide	12' Long	SGF	Gray w/yellow nosing	
S-STCV10 Tread Cover	10" wide	12' Long			
SAFPLANK® FIBERGLASS PLANK					
SAFPAK 200 SLD	2"	12" x 10' or 20' Long, 24" x 20' or 24' Long	SPF	Gray	
SAFPAK 200 PCH	2"	12" & 24" x 20' Long			
TRENCH DRAIN					
Trench Drain	Kit 1	20' Run	Polymer Concrete	Gray	
Trench Drain	Kit 2	40' Run			
STRUCTURAL SHAPES/PLATE/HANDRAIL COMPONENTS					
Adj. Sq. Connector Angle	1-1/2" x 1-1/2" x 1/4"		SPF	Beige	
Angle	1-1/2" x 1-1/2" x 3/16", 1/4"	20' Long	SPF	Gray	
Angle	2" x 2" x 3/16"	20' Long	SPF	Gray	
Angle	2" x 2" x 1/4"	20' Long	SPF	Gray, Olive	
Angle	3" x 3" x 1/4" & 3/8"	20' Long	SPF	Gray, Olive	
Angle	4" x 4" x 1/4"	20' Long	SPF	Gray, Olive	
Angle	4" x 4" x 3/8"	20' Long	SPF	Gray	
Channel	4" x 1-1/8" x 1/4"	20' Long	SPF	Gray, Olive	
Channel	6" x 1-5/8" x 1/4"	20' Long	SPF	Gray	
Channel	8" x 2-3/16" x 3/8"	20' Long	SPF	Gray	
Floor Plate	1/8"	4' x 8'	SPF	Gray	
Floor Plate	1/4"	4' x 8'	SPF	Gray	
Sq. 90° Corner Plug	2" cube with 2.5" legs		SPF	Yellow	
Sq. End Cap	2" x 2"		SPF	Black	
Sq. Post Base	6" x 4" x .75"		SPF	Yellow	
Sq. Post or Rail	2" x 2" x .156"	20' Long	SPF	Yellow	
Split Tube	1.70"	8" Long	SPF	Yellow	
Square Plug	1.68"	6" Long	SPF	Yellow	
EXTREND®	Fibrebolt	5/8"	4' Long	SVF	Brown
	Fibrenut	5/8"		Thermoplastic	Brown
	Floor Plate	1/8" no grit	4' x 8'	SPF	Gray
	Floor Plate	1/4" no grit	4' x 8'	SPF	Gray
	Floor Plate	1/2" no grit	4' x 8'	SPF	Gray, Green
	I-Beam	4" x 1/4"	20' Long	SPF	Gray
	Round Rod	1/4" & 3/8" dia.	20' Long	SVF	Green
	Round Rod	1", 1-1/4", or 1-1/2" dia.	20' Long	Thermal Cure	Lt. Green
	Rectangular Tube	4" x 2" x 1/8"	20' Long	SPF	Gray
	Round Tube	1-1/4" & 1-1/2" x 1/8"	20' Long	SPF	Gray
	Round Tube	2" x 1/4"	20' Long	SPF	Gray
	Round Tube	1-1/2" x 1/8"	20' Long	SVF	Olive, Beige
	Square Tube	1" x 1/8"	20' Long	SPF	Green
	Square Tube	2" x 1/4"	20' Long	SPF	Olive, Yellow, Gray
Square Tube	3" x 1/4"	20' Long	SPF	Gray	
Square Tube	4" x 1/4"	20' Long	SPF	Gray	
Square Tube	1-1/2" x 1/8"	20' Long	SVF	Beige	



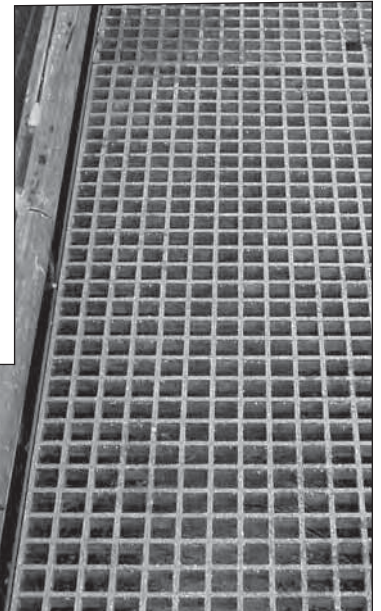
FREE Full-Line Master Catalog 2009 Includes:

- NEW! Designer Metals and Designer Metals Finishes**
- Perforated Metal**
- Expanded Metal**
- Wire Cloth/Mesh**
- Bar, Plank & Safety Grating**
- Fiberglass Grating & Structurals**
- Handrail Components**

Resin	Type	Characteristics
SPF	Polyester	Isophthalic polyester resin is fire retardant and meets the requirements for Class 1 flame rating of 25 or less per ASTM E-84.
SVF	Vinyl Ester	Vinyl ester resin is fire retardant and meets the requirements for Class 1 flame rating of 25 or less per ASTM E-84.
SGF	Polyester	Orthophthalic polyester architectural grade resin is fire retardant and meets the requirements for Class 1 flame rating of 25 or less per ASTM E-84.
SFF	Polyester	Isophthalic polyester resin food grade is fire retardant and meets the requirements for Class 2 flame rating of 30 or less per ASTM E-84.
SPW	Polyester	Polyester resin available in white only is non-fire retardant.
SPH	Phenolic	Phenolic resin is fire retardant and meets the Class 1 flame rating of 25 or less per ASTM E-84. Has flame spread index of 10 and smoke index of 10. NEW! Ask us! Special Order



Phenolic Fiberglass Grating withstands the most extreme thermal conditions.



Square Molded Fiberglass Grating was used as this trench grating cover—low maintenance and durable.



Durable, corrosion resistant Fiberglass Grating was used in construction of stairs and walkway for this outdoor environment.

The following definitions will aid readers using this Chemical Resistance Guide: **AMB** - Ambient or room temperature exposure; **NR** - Not Resistant; - No Data. **NOTE:** Temperature data may not be maximum, but rather upper temperature at which a resin has been tested. This is intended for general use only. **This chart does not contain chemical information for pultruded floor plate.**

* Applies to **SAFPLANK®** & **SAFDECK®** only.

Consult **McNICHOLS** for corrosion recommendations at concentrations, temperatures or chemicals not listed in this guide. The information in this guide is correct to the best of our 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

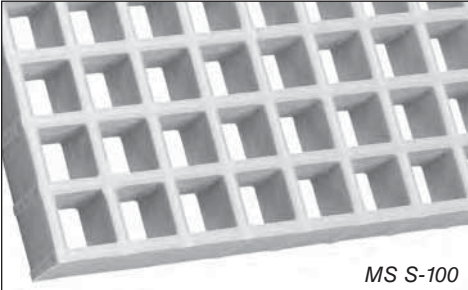
conditions. Most of the information in this guide is based on laboratory tests and extrapolated values supplied by resin manufacturers. There are no warranties, expressed or implied, including warranties of merchantability or fitness for any particular purpose. In no event will **McNICHOLS** be liable for incidental or consequential damages, whether arising from alleged negligence, strict liability or otherwise.

Chemical Environment	Vinyl ester SV	Polyester SP	Chemical Environment	Vinyl ester SV	Polyester SP
Acetic Acid 0-50%	160	74	Citric Acid	160	150
Alcohol, Butyl	74	NR	Coconut Oil	160	74
Alcohol, Ethyl 10%	150	NR	Copper Chloride	160	150
Alcohol, Isopropyl 10%	150	-	Copper Cyanide	160	NR
Alcohol, Isopropyl 100%	74	NR	Copper Fluoride	160	NR
Alcohol, Methyl 10%	150	NR	Copper Nitrate	74	150
Alcohol, Methyl Isobutyl	150	NR	Copper Sulfate	160	150
Alcohol, Secondary Butyl	150	NR	Corn Oil	160	74
Alum	160	150	Corn Starch-Slurry	160	74
Aluminum Chloride	160	150	Corn Sugar	160	74
Aluminum Hydroxide 5%	120	NR	Cottonseed Oil	160	74
Aluminum Nitrate	160	150*	Crude Oil, Sour	160	74
Aluminum Potassium Sulfate	160	150	Crude Oil, Sweet	160	74
Ammonia, Aqueous 0-10%	100	-	Cyclohexane	120	74
Ammonia, Gas	100	-	Detergents, Sulfonated	160	74
Ammonium Bicarbonate	120	74	Di-Ammonium Phosphate	160	NR
Ammonium Bisulfite	120	-	Dibutyl Ether	120	NR
Ammonium Carbonate 10%	120	-	Diesel Fuel	160	74
Ammonium Citrate	120	74*	Diethylene Glycol	160	74
Ammonium Hydroxide 5%	120	74	Dimethyl Phthalate	160	NR
Ammonium Hydroxide 10%	120	NR	Diethyl Phthalate	160	NR
Ammonium Hydroxide 20%	120	NR	Dipropylene Glycol	160	74
Ammonium Nitrate 50%	160	150	Dodecyl Alcohol	160	NR*
Ammonium Persulfate 20%	120	NR	Esters, Fatty Acids	160	150*
Ammonium Phosphate	120	NR	Ethylene Glycol	160	150
Ammonium Sulfate	160	150	Fatty Acids	160	150
Arsenious Acid	160	74*	Ferric Chloride	160	150
Barium Acetate	160	NR	Ferric Nitrate	160	150
Barium Carbonate	160	NR	Ferric Sulfate	160	150
Barium Chloride	160	74	Ferrous Chloride	160	150
Barium Hydroxide	120	-	Ferrous Nitrate	160	150
Barium Sulfate	160	150	Ferrous Sulfate	160	150
Barium Sulfide	160	NR	8-8-8 Fertilizer	160	74
Beer	120	74	Fertilizer: Urea Ammon. Nitrate	120	NR*
5% Benzene in Kerosene	160	74*	Flue Gas	160	NR*
Benzene Sulfonic Acid 30%	160	150	Fluosilicic Acid 0-20%	160	NR
Benzoic Acid	160	74	Formaldehyde	160	74
O-Benzoyl Benzoic Acid	160	74*	Formic Acid 10%	160	74
Butylene Glycol	160	150	Fuel Oil	160	74
Butyric Acid 0-50%	160	74	Gas, Natural	160	74
Cadmium Chloride	160	74	Gasoline, Auto	160	74
Calcium Bisulfate	160	150	Gasoline Aviation	160	74
Calcium Carbonate	-	-	Gasoline, Ethyl	160	74
Calcium Chlorate	160	150	Gasoline, Sour	160	74
Calcium Chloride	160	150	Glyconic, Acid	160	74
Calcium Hydroxide	-	-	Glucose	160	150
Calcium Hypochlorite	120	74	Glycerine	160	150
Calcium Nitrate	160	150	Glycol, Propylene	160	150
Calcium Sulfate	160	150	Glycolic Acid 70%	160	74
Calcium Sulfite	160	150	Heptane	160	74
Caprylic Acid	160	74	Hexane	160	74
Carbon Dioxide	160	150	Hexalene Glycol	160	150
Carbon Monoxide	160	150	Hydraulic Fluid	160	74
Carbon Tetrachloride	100	NR*	Hydrobromic Acid 0-25%	160	74
Carbonic Acid	160	150	Hydrochloric Acid 15%	160	NR*
Carbon Methyl Cellulose	120	NR*	Hydrocyanic Acid	160	74
Castor Oil	160	150*	Hydrofluosilicic Acid 10%	160	NR
Chlorinated Wax	160	NR*	Hydrogen Bromide, Wet Gas	160	NR*
Chlorine Dioxide/Air	160	74	Hydrogen Chloride, Dry Gas	160	NR*
Chlorine Dioxide, Wet Gas	160	NR*	Hydrogen Chloride, Wet Gas	160	NR
Chlorine, Dry Gas	160	74	Hydrogen Fluoride, Vapor	74	95
Chlorine, Wet Gas	160	NR	Hydrogen Peroxide 35%	120	ASK
Chlorine, Water	160	NR	Hydrogen Sulfide Dry	160	74* ASK
Chloroacetic Acid 0-50%	100	NR	Hydrogen Sulfide, Aqueous	160	74*
Chromic Acid 20%	120	NR*	Hydrosulfite Bleach	120	NR*
Chromium Sulfate	160	150	Hypochlorous Acid 0-10%	160	ASK

Continued on page 7.

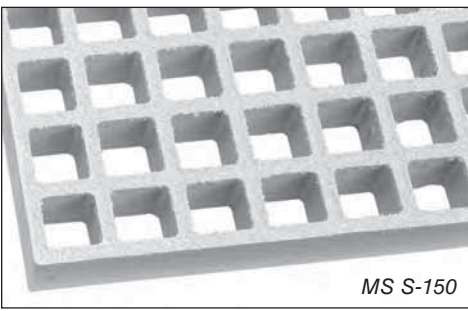
* Applies to SAFPLANK® & SAFDECK® only. See page 6 for information on using this guide.

Chemical Environment	Vinyl ester SV	Polyester SP	Chemical Environment	Vinyl ester SV	Polyester SP
Isopropyl Amine	100	NR*	Sodium Bifluoride	120	74
Isopropyl Palmitate	160	150	Sodium Bisulfate	160	150
Jet Fuel	160	74*	Sodium Bisulfite	160	150
Kerosene	160	74*	Sodium Bromate	140	74*
Lactic Acid	160	ASK	Sodium Bromide	160	150
Lauroyl Chloride	160	NR*	Sodium Carbonate 0-25%	-	-
Lauric Acid	160	NR*	Sodium Chlorate	160	74
Lead Acetate	160	ASK	Sodium Chloride	160	74
Lead Chloride	160	74*	Sodium Chlorite 25%	160	74
Lead Nitrate	160	74*	Sodium Chromate	160	74*
Levulinic Acid	160	74*	Sodium Cyanide	160	74
Linseed Oil	160	150*	Sodium Dichromate	160	150
Lithium Bromide	160	150*	Sodium Di-Phosphate	160	150
Lithium Sulfate	160	150*	Sodium Ferricyanide	160	150
Magnesium Bisulfite	160	74*	Sodium Fluoride	120	NR*
Magnesium Carbonate	-	-	Sodium Fluoro Silicate	120	NR*
Magnesium Chloride	160	150+ASK	Sodium Hexametaphosphates	100	NR*
Magnesium Hydroxide	140	NR*	Sodium Hydroxide 0-5%	150	NR
Magnesium Nitrate	160	74+ASK	Sodium Hydroxide 5-50%	150	NR
Magnesium Sulfate	160	150* ASK	Sodium Hydrosulfide	160	74
Maleic Acid	160	150*	Sodium Hypochlorite 5%	-	-
Mercuric Chloride	160	ASK	Sodium Lauryl Sulfate	160	150
Mercurous Chloride	160	ASK	Sodium Mono-Phosphate	160	150
Methanol (See Alcohol)	160	74*	Sodium Nitrate	160	150
Mineral Oils	160	150	Sodium Silicate	160	74
Molybdenum Disulfide	160	NR*	Sodium Sulfate	160	150
Motor Oil	160	150	Sodium Sulfide	160	74
Myristic Acid	160	ASK	Sodium Sulfite	160	74
Naphtha	160	150	Sodium TetraBorate	160	150
Naphthalene	160	74	Sodium Thiocyanate	160	NR*
Nickel Chloride	160	74	Sodium Thiosulfate	160	74
Nickel Nitrate	160	150	Sodium Tripolyphosphate	160	74
Nickel Sulfate	160	150	Sodium Xylene Sulfonate	160	74
Nitric Acid 0-5%	160	150	Sodium Solutions	160	74
Nitric Acid 20%	120	NR*	Sodium Crude Oil	160	150
Nitric Acid Fumes	NR	NR*	Soya Oil	160	150
Octanoic Acid	160	74	Stannic Chloride	160	150
Oil, Sour Crude	160	150	Stannous Chloride	160	150
Oil, Sweet Crude	160	150	Stearic Acid	160	150
Oleic Acid	160	150	Sugar, Beet and Cane Liquor	160	74
Olive Oil	160	150	Sugar, Sucrose	160	150
Oxalic Acid	160	150	Sulfamic Acid	160	74
Phosphoric Acid	160	150	Sulfanilic Acid	160	74*
Phosphoric Acid Fumes	160	150	Sulfated Detergents	160	74
Phosphorous Pentoxide	160	150	Sulfur Dioxide, Dry or Wet	160	NR*
Phthalic Acid	160	150	Sulfur, Trioxide/Air	160	NR*
Pickling Acids (Sulfuric and Hydrochloric)	160	150	Sulfuric Acid 25%	160	150
Picric Acid, Alcoholic	160	150	Sulfuric Acid 30-50%	160	NR
Polyvinyl Acetate Latex	160	74	Sulfuric Acid 50-70%	120	NR
Polyvinyl Alcohol	100	74	Sulfurous Acid 10%	100	NR
Polyvinyl Chloride Latex (35)	120	NR*	Superphosphoric Acid (76% P ² O ⁵)	160	74
Potassium Aluminum Sulfate	160	150	Tall Oil	150	74
Potassium Bicarbonate	140	74	Tannic Acid	120	74
Potassium Bromide	100	74*	Tartaric Acid	160	150
Potassium Carbonate	-	-	Trichloro Acetic Acid 50%	160	74
Potassium Chloride	160	150	Tricresyl Phosphate	120	NR*
Potassium Dichromate	140	74*	Tridecylbenzene Sulfonate	160	74*
Potassium Ferricyanide	160	150	Trisodium Phosphate	160	74
Potassium Ferrocyanide	160	150	Turpentine	100	NR*
Potassium Hydroxide	-	-	Urea	140	74
Potassium Nitrate	160	150	Vegetable Oils	160	150
Potassium Permanganate	140	74	Vinegar	160	150
Potassium Persulfate	160	74	Water:		
Potassium Sulfate	160	150	Deionized	160	150
Propionic Acid 1-50%	120	NR*	Deminerlized	160	150
Pulp Paper Mill Effluent	160	74	Distilled	160	150
Sebacic Acid	160	NR*	Fresh	160	150
Selenious Acid	160	NR*	Salt	160	150
Silver Nitrate	160	150	Sea	160	150
Soaps	160	74	White Liquor (Pulp Mill)	160	74
Sodium Acetate	160	74	Xylene	NR	NR
Sodium Benzoate	160	74	Zinc Chlorate	160	150
Sodium Bicarbonate	160	74*	Zinc Nitrate	160	150
			Zinc Sulfate	160	150



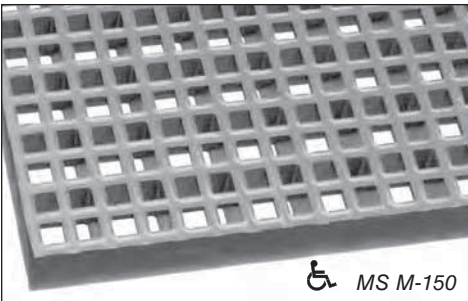
MS S-100

Molded Square - non-grit shown



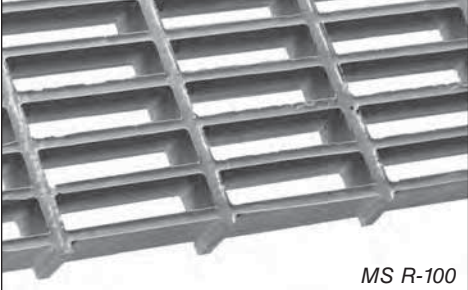
MS S-150

Molded Square - grit shown



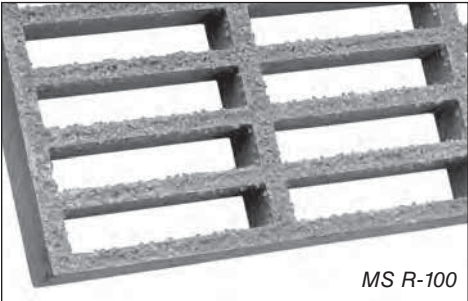
MS M-150

Mini-Grid™ Molded Square



MS R-100

Molded Rectangular - non-grit shown



MS R-100

Molded Rectangular - grit shown

Corrosion Resistant

Fire Retardant

Lightweight

Maintenance Free

Easy to Install & Fabricate

Cost Effective

Bidirectional Load Bearing

Impact Resistant

MATERIAL: Molded fiberglass shapes made from a polyester or vinyl ester resin matrix

PATTERN: 1", 1-1/2", 2" square; 1" x 4", 1-1/2" x 6" rectangular

Mini-Grid™—Top: 3/4" x 3/4" mesh; Bottom: 1-1/2" x 1-1/2" mesh

HEIGHTS: Square—1", 1-1/2" or 2"
Rectangular—1", 1-1/2": Mini-Grid—1-1/2"

WIDTHS: Square—3', 4', or 5';
Rectangular—3' or 4';

LENGTHS: 8', 10', 12';
Mini-Grid™: 4' x 8' & 12' plank

RESIN/ COLORS: SVF - Orange or Dark Gray
SPF - Green or Yellow
SGF - Yellow, Green, or Dark Gray
SFF - Light Gray

SURFACE: Concave.
Grit surface also available.

LOADING: P. 9
Treads, see P. 17

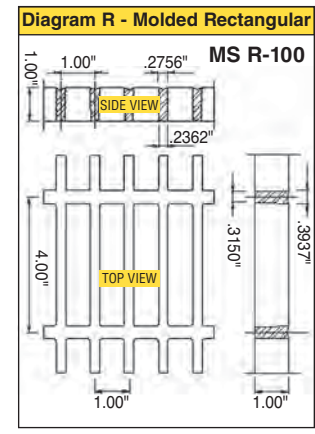
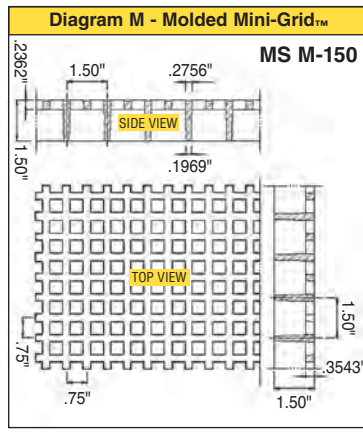
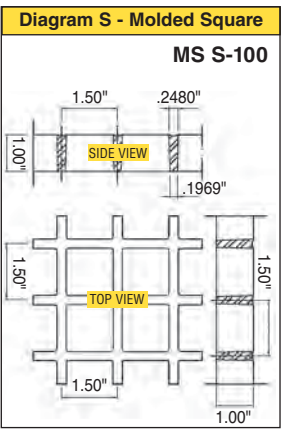
NSF-61 Certified Resins
Available by Special Order
Please contact us for more information!

Our molded fiberglass is a strong mesh grating panel which allows efficient on-site cutting to minimize grating waste. It is molded in one piece with a plain concave slip resistant walking surface; it is the chemical resistant flooring choice for many industrial applications. Load bearing bars in both directions allow for use without continuous side support.

Molded fiberglass grating is significantly lighter in weight than metal gratings. The high resin content (65%) provides long maintenance free performance. A higher safety factor is achieved by designing in a higher glass content at the bottom of the grating for greater tensile strength. Special UV inhibitors also available.

Molded Product Details

Series Number	Height	Mesh	#SF	Open Area
MS S-100	1"	1-1/2" x 1-1/2"	2.60#	70%
MS S-150	1-1/2"	1-1/2" x 1-1/2"	3.80#	70%
MS S-200	2"	2" x 2"	4.00#	72%
MS M-150	1-1/2"	Top: 3/4" x 3/4" Bottom: 1-1/2" x 1-1/2"	4.40#	44%
MS R-100	1"	1" x 4"	2.80#	69%
MS R-150	1-1/2"	1-1/2" x 6"	3.75#	67%



SPAN		MSS-100 1" Ht. Molded Square LOAD TABLE									SAFE LOAD 5:1 SAFETY FACTOR
LOAD	50	100	150	200	250	300	400	500			
12"	△ U	<.010	<.010	.013	.017	.021	.025	.034	.042	1360	
	△ C	<.010	.014	.020	.027	.034	.041	.054	.068		680
18"	△ U	.021	.041	.062	.082	.103	.123	.164	.205	666	
	△ C	.022	.044	.066	.088	.110	.131	.175	.219	500	
24"	△ U	.064	.128	.192	.256	.320	.384	.512	.640	380	
	△ C	.051	.102	.154	.205	.256	.307	.409	.512	380	
30"	△ U	.155	.309	.464	.619					240	
	△ C	.099	.198	.297	.396	.495	.594			300	
36"	△ U	.318	.635							160	
	△ C	.169	.339	.508	.677	1-1/2" x 1-1/2" Square Mesh					240

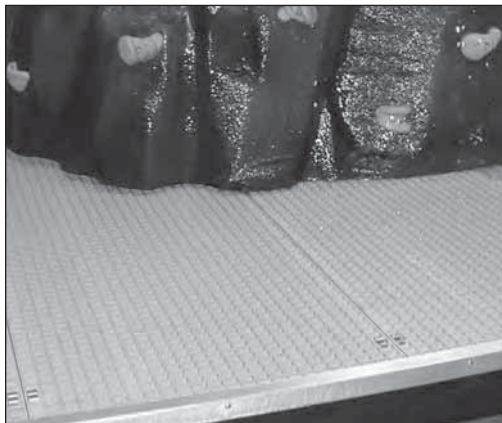
SPAN		MS S-150 1-1/2" Ht. Molded Square LOAD TABLE									SAFE LOAD 5:1 SAFETY FACTOR
LOAD	50	100	150	200	250	300	400	500			
12"	△ U	<.010	<.010	<.010	<.010	<.010	.011	.014	.018	3120	
	△ C	<.010	<.010	<.010	.011	.014	.017	.023	.028		1560
18"	△ U	<.010	.014	.021	.028	.036	.043	.057	.071	1386	
	△ C	<.010	.015	.023	.030	.038	.046	.061	.076	1040	
24"	△ U	.021	.042	.063	.084	.104	.125	.167	.209	780	
	△ C	.017	.033	.050	.067	.084	.100	.134	.167	780	
30"	△ U	.047	.094	.141	.188	.235	.283	.377	.471	496	
	△ C	.030	.060	.090	.121	.151	.181	.241	.301	620	
36"	△ U	.096	.192	.288	.384	.480	.576			347	
	△ C	.051	.102	.154	.205	.256	.307	.410	.512	520	
42"	△ U	.175	.350	.525						251	
	△ C	.080	.160	.240	.320	.400	.480	.641	.801	440	
48"	△ U	.287	.573							170	
	△ C	.115	.229	.344	.459	.573	.688	1-1/2" x 1-1/2" Square Mesh			340

SPAN		Mini-Grid™ MS M-150 1-1/2" Ht. Molded Square LOAD TABLE									SAFE LOAD 5:1 SAFETY FACTOR
LOAD	50	100	150	200	250	300	400	500			
12"	△ U	<.010	<.010	.011	.014	.017	.021	.028	.035	3860	
	△ C	<.010	.011	.017	.022	.028	.034	.045	.056		1930
18"	△ U	.013	.026	.039	.052	.065	.078	.104	.130	1776	
	△ C	.014	.028	.042	.056	.070	.084	.112	.139	1332	
24"	△ U	.025	.050	.075	.100	.126	.151	.201	.251	1052	
	△ C	.020	.040	.060	.080	.101	.121	.161	.201	1052	
30"	△ U	.055	.110	.165	.219	.274	.329	.439	.548	632	
	△ C	.035	.070	.105	.140	.176	.211	.281	.351	790	
36"	△ U	.087	.173	.260	.346	.433	.520	.692		456	
	△ C	.046	.092	.139	.185	.231	.277	.370	.462	684	
42"	△ U	.150	.300	.450	.600					332	
	△ C	.069	.138	.207	.276					582	
48"	△ U	.245	.490	.735						215	
	△ C	.098	.196	.294	Top: 3/4" square mesh Bottom: 1-1/2" square mesh				430		

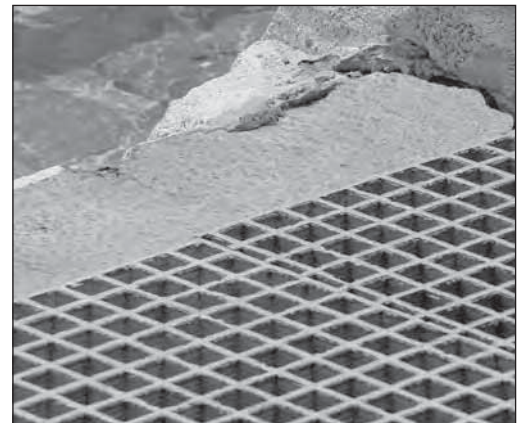
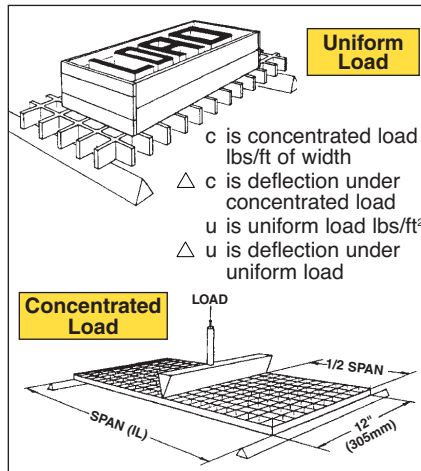
SPAN		MS S-200 2" Ht. Molded Square LOAD TABLE									SAFE LOAD 5:1 SAFETY FACTOR
LOAD	50	100	150	200	250	300	400	500			
12"	△ U	<.010	<.010	<.010	<.010	<.010	<.010	<.010	.010	4000	
	△ C	<.010	<.010	<.010	<.010	<.010	.010	.013	.016		2000
18"	△ U	<.010	<.010	.012	.016	.020	.024	.032	.040	1813	
	△ C	<.010	<.010	.013	.017	.021	.026	.034	.043	1360	
24"	△ U	.010	.021	.031	.042	.052	.063	.083	.104	960	
	△ C	<.010	.017	.025	.033	.042	.050	.067	.083	960	
30"	△ U	.023	.046	.069	.092	.114	.137	.183	.229	640	
	△ C	.015	.029	.044	.059	.073	.088	.117	.146	800	
36"	△ U	.044	.089	.133	.177	.222	.266	.355	.444	453	
	△ C	.024	.047	.071	.095	.118	.142	.189	.237	680	
42"	△ U	.082	.164	.245	.327	.409	.491	.654		331	
	△ C	.037	.075	.112	.150	.187	.224	.299	.374	580	
48"	△ U	.135	.270	.405	.541					260	
	△ C	.054	.108	.162	.216	.270	.324	.432	.541	520	
54"	△ U	.210	.420	.630						204	
	△ C	.075	.149	.224	.298	.373	.448	.597	2" x 2" Sq. Mesh		460

SPAN		MS R-100 1" Ht. Molded Rectangular LOAD TABLE									SAFE LOAD 5:1 SAFETY FACTOR
LOAD	50	100	150	200	250	300	400	500			
12"	△ U	<.010	<.010	<.010	.011	.014	.017	.022	.028	1960	
	△ C	<.010	<.010	.013	.018	.022	.027	.035	.044		980
18"	△ U	.012	.025	.037	.049	.062	.074	.099	.123	960	
	△ C	.013	.026	.039	.053	.066	.079	.105	.131	720	
24"	△ U	.037	.074	.112	.149	.186	.223	.298	.372	560	
	△ C	.030	.060	.089	.119	.149	.179	.238	.298	560	
30"	△ U	.088	.176	.264	.352	.440	.528			336	
	△ C	.056	.113	.169	.225	.282	.338	.451	.563	420	
36"	△ U	.176	.353	.529						240	
	△ C	.094	.188	.282	.376	.470	.564			360	
42"	△ U	.316	.632							183	
	△ C	.144	.289	.433	.577	1" x 4" Rectangular Mesh					320

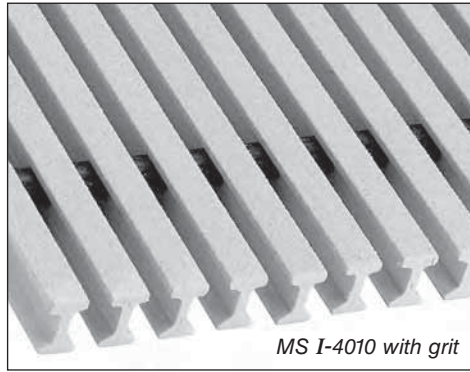
SPAN		MS R-150 1-1/2" Ht. Molded Rectangular LOAD TABLE									SAFE LOAD 5:1 SAFETY FACTOR
LOAD	50	100	150	200	250	300	400	500			
12"	△ U	<.010	<.010	<.010	<.010	.011	.014	.018	.023	4272	
	△ C	<.010	<.010	.011	.015	.018	.022	.029	.037		2136
18"	△ U	<.010	.018	.027	.035	.044	.053	.071	.089	1712	
	△ C	.010	.019	.028	.038	.047	.057	.076	.095	1284	
24"	△ U	.019	.038	.056	.075	.094	.112	.150	.188	956	
	△ C	.015	.030	.045	.060	.075	.090	.120	.150	956	
30"	△ U	.039	.078	.117	.156	.195	.233	.311	.389	587	
	△ C	.025	.050	.075	.100	.125	.150	.200	.250	734	
36"	△ U	.071	.143	.214	.285	.357	.428			385	
	△ C	.038	.076	.114	.152	.190	.228	.304	.381	578	
42"	△ U	.126	.252	.378	.504	.630				370	
	△ C	.058	.115	.173	.230	.288	.346	.461		472	
48"	△ U	.207	.414	.621						184	
	△ C	.083	.160	.248	.331	.414	.497	1-1/2" x 6" Rectangular Mesh			368



Molded Square Fiberglass Grating platform was used to make a sturdy platform for this climbing wall.



Molded Fiberglass Grating with grit was used as a durable and safe walkway at this water attraction.



MS I-4010 with grit

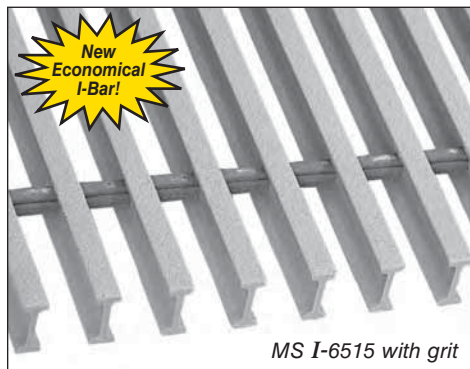
Pultruded I-Bar with .40" top flange spacing



Phenolic Grating - Ask us!

MS I-6015 without grit

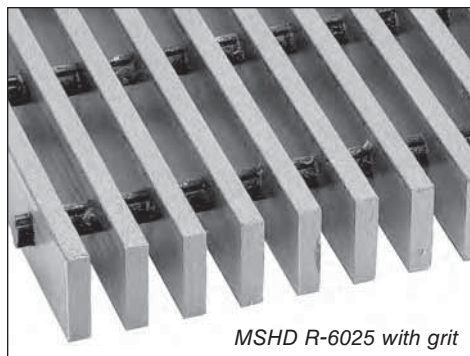
Pultruded I-Bar with .90" top flange spacing



New Economical I-Bar!

MS I-6515 with grit

Pultruded I-Bar with 1.11" top flange spacing



MSHD R-6025 with grit

HD Rectangular Bar with .90" top flange spacing

Corrosion Resistant

Fire Retardant

High Longitudinal Strength

Low Maintenance

Maximum Stiffness

Non-Conductive

Impact Resistant

Easy Fabrication, More!

MATERIAL: Pultruded fiberglass shapes made from polyester or vinyl ester (special order) resin with 3 piece cross rod assembly
PATTERN: I-Bar shaped bearing bars with perpendicular cross bar rods placed every 6" (12" special)
HEIGHTS: 1", or 1-1/2"; Heavy Duty Rectangular Bar 1" - 2-1/2" (special)
WIDTHS: 3', 4', or 5'
LENGTHS: 8', 10', 12', 20'
RESIN/ COLORS: SPF - Yellow or gray (stock) SVF - Yellow or gray (special) **SURFACE:** Gritted or Plain **LOADING:** P. 11
NEW! SPH - Phenolic Brown (special) *Treads P. 17*

Pultruded I-Bar is manufactured with a high percentage of glass within the laminate, providing durability, extremely high unidirectional strength and stiffness. UV coating available by special order. Heavy duty rectangular bar is designed to take heavy wheel traffic. Due to the variety of wheel types and loading contact our Customer Service Specialists to determine the type of heavy duty grating required.

MS I-Bar Series	Bearing Bar Size	Series Number	#/SF	A	B	C	Open Area
	1.00" x .60"	MS I-4010	3.40#	1.00"	.40"	.40"	40%
	1.50" x .60"	MS I-4015	4.20#	1.00"	.40"	.40"	40%
	1.00" x .60"	MS I-6010	2.40#	1.50"	.90"	.90"	60%
	1.50" x .60"	MS I-6015	3.00#	1.50"	.90"	.90"	60%
	1.50" x .60"	MS I-6515	2.70#	1.71"	1.11"	1.11"	65%

A = Center to center of bearing bars B = Spacing between bearing bar top flanges C = Spacing between bearing bar bottom flanges
 ■ STOCK

Heavy Duty Rectangular Bar MSHD Series	Bearing Bar Size	Series Number	#/SF	A	B	C	Open Area
	1.00" x .60"	MSHD R-6010	4.90#	1.50"	.90"	.90"	60%
	1.25" x .60"	MSHD R-6012	5.90#	1.50"	.90"	.90"	60%
	1.50" x .60"	MSHD R-6015	7.00#	1.50"	.90"	.90"	60%
	1.75" x .60"	MSHD R-6017	8.00#	1.50"	.90"	.90"	60%
	2.00" x .60"	MSHD R-6020	9.00#	1.50"	.90"	.90"	60%
	2.25" x .60"	MSHD R-6022	10.10#	1.50"	.90"	.90"	60%
	2.50" x .60"	MSHD R-6025	11.10#	1.50"	.90"	.90"	60%

A = Center to center of bearing bars B = Spacing between bearing bar top flanges C = Spacing between bearing bar bottom flanges



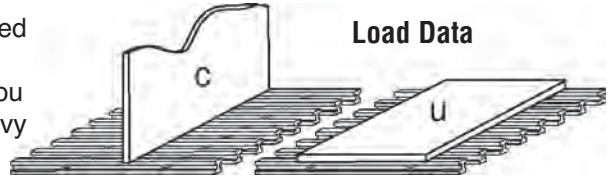
The Pultruded Phenolic Grating used on this platform features fire integrity, weight savings and is U.S. Coast Guard approved.



Fiberglass Grating was used for this amusement ride walkway.

Heavy Duty Rectangular Bar Load Tables

The following load tables are for the solid bar heavy duty grating designed to take heavy wheel traffic such as forklifts, tow motors and truck traffic. Due to the variety of wheel types and loading, it is recommended that you contact our Customer Service Specialists to determine the series of heavy duty grating needed for your application.



MSHD R-6015 1-1/2" Ht. Heavy Duty Rectangular Bar		LOAD TABLE	SAFE LOAD 2:1 SAFETY FACTOR
SPAN	LOAD	100 200 300 500 1000 2000 3000 4000 5000 6000 7000 8000	
12"	Δ U	.000 .001 .001 .002 .004 .008 .011 .015 .019 .023 .027 .030	21000
	Δ C	.001 .001 .002 .003 .006 .012 .018 .024 .030 .037 .043 .049	21000
18"	Δ U	.002 .003 .005 .008 .016 .031 .047 .063 .079 .094 .110 .126	14000
	Δ C	.002 .003 .005 .008 .017 .034 .050 .067 .084 .101 .117 .134	14045
24"	Δ U	.005 .009 .014 .024 .047 .094 .142 .189 .236 .283 .330 .378	10500
	Δ C	.004 .008 .011 .019 .038 .076 .113 .151 .189 .227 .264 .302	10500
30"	Δ U	.011 .023 .034 .057 .113 .226 .340 .453 .566 .679	6742
	Δ C	.007 .014 .022 .036 .072 .145 .217 .290 .362 .435 .507 .580	8427
36"	Δ U	.023 .046 .070 .116 .232 .465 .697	4682
	Δ C	.012 .025 .037 .062 .124 .248 .372 .496 .620	7023
42"	Δ U	.043 .086 .128 .214 .428	3440
	Δ C	.020 .039 .059 .098 .195 .391 .586	6019
48"	Δ U	.073 .145 .218 .363	2634
	Δ C	.029 .058 .087 .145 .290 .580	5267
54"	Δ U	.115 .231 .346 .577	2080
	Δ C	.041 .082 .123 .205 .410	4682
60"	Δ U	.175 .350 .525	1685
	Δ C	.056 .112 .168 .280 .560	4214
66"	Δ U	.255 .510	1393
	Δ C	.074 .148 .223 .371	3830
72"	Δ U	.359 .719	1170
	Δ C	.096 .192 .288 .479	3511

For All Load Tables on this Page
 C Is concentrated load lbs/ft of width
 Δ C Is deflection under concentrated load
 U Is uniform load lbs/ft²
 Δ U Is deflection under uniform load

MSHD R-6017 1-3/4" Ht. Heavy Duty Rectangular Bar		LOAD TABLE	SAFE LOAD 2:1 SAFETY FACTOR
SPAN	LOAD	100 200 300 500 1000 2000 3000 4000 5000 6000 7000 8000	
12"	Δ U	.000 .000 .001 .001 .002 .004 .007 .009 .011 .013 .015 .018	42000
	Δ C	.000 .001 .001 .002 .004 .007 .011 .014 .018 .021 .025 .028	32668
18"	Δ U	.001 .002 .003 .005 .011 .021 .032 .043 .053 .064 .075 .085	28000
	Δ C	.001 .002 .003 .006 .011 .023 .034 .046 .057 .068 .080 .091	21800
24"	Δ U	.003 .006 .010 .016 .032 .064 .096 .128 .160 .192 .224 .256	16334
	Δ C	.003 .005 .008 .013 .026 .051 .077 .103 .128 .154 .179 .205	16334
30"	Δ U	.008 .015 .023 .038 .076 .152 .228 .304 .380 .455 .531 .607	10454
	Δ C	.005 .010 .015 .024 .049 .097 .146 .194 .243 .292 .340 .389	13067
36"	Δ U	.015 .030 .045 .075 .151 .302 .453 .604 .755 .906 1.057 1.208	7260
	Δ C	.008 .016 .024 .040 .081 .161 .242 .322 .403 .483 .564 .644	10889
42"	Δ U	.028 .055 .083 .138 .275 .551	5334
	Δ C	.013 .025 .038 .063 .126 .252 .378 .503 .629	9334
48"	Δ U	.046 .093 .139 .232 .465	4084
	Δ C	.019 .037 .056 .093 .186 .372 .558	8167
54"	Δ U	.074 .147 .221 .368 .737	3226
	Δ C	.026 .052 .079 .131 .262 .524	7260
60"	Δ U	.111 .222 .333 .555	2613
	Δ C	.036 .071 .107 .178 .355	6534
66"	Δ U	.161 .322 .483	2160
	Δ C	.047 .094 .141 .234 .469	5940
72"	Δ U	.226 .452 .678	1815
	Δ C	.060 .121 .181 .301 .603	5445

Information is available about longer spans.

MSHD R-6020 2" Ht. Heavy Duty Rectangular Bar		LOAD TABLE	SAFE LOAD 2:1 SAFETY FACTOR
SPAN	LOAD	100 200 300 500 1000 2000 3000 4000 5000 6000 7000 8000	
12"	Δ U	.000 .000 .001 .001 .002 .003 .005 .007 .009 .010 .012 .014	48000
	Δ C	.000 .001 .001 .001 .003 .005 .008 .011 .014 .016 .019 .022	42667
18"	Δ U	.001 .002 .002 .004 .008 .015 .023 .030 .038 .046 .053 .061	32000
	Δ C	.001 .002 .002 .004 .008 .016 .024 .033 .041 .049 .057 .065	28445
24"	Δ U	.002 .004 .007 .011 .022 .044 .066 .088 .109 .131 .153 .175	21334
	Δ C	.002 .004 .005 .009 .018 .035 .053 .070 .088 .105 .123 .140	21334
30"	Δ U	.005 .010 .015 .025 .050 .100 .151 .201 .251 .301 .351 .402	13654
	Δ C	.003 .006 .010 .016 .032 .064 .096 .129 .161 .193 .225 .257	17067
36"	Δ U	.010 .020 .030 .050 .101 .202 .302 .403 .504 .605 .706	9482
	Δ C	.005 .011 .016 .027 .054 .108 .161 .215 .269 .323 .376 .430	14223
42"	Δ U	.019 .037 .056 .093 .186 .372 .557 .743	6966
	Δ C	.008 .017 .025 .042 .085 .170 .255 .340 .425 .510 .594 .679	12190
48"	Δ U	.032 .063 .095 .158 .315 .630	5333
	Δ C	.013 .025 .038 .063 .126 .252 .378 .504 .630	10667
54"	Δ U	.050 .101 .151 .252 .504	4214
	Δ C	.018 .036 .054 .090 .179 .358 .538	9482
60"	Δ U	.077 .153 .230 .383	3413
	Δ C	.025 .049 .074 .123 .245 .491	8534
66"	Δ U	.112 .224 .336 .559	2821
	Δ C	.033 .065 .098 .163 .326 .651	7758
72"	Δ U	.158 .316 .474 .790	2370
	Δ C	.042 .084 .126 .211 .421	7111

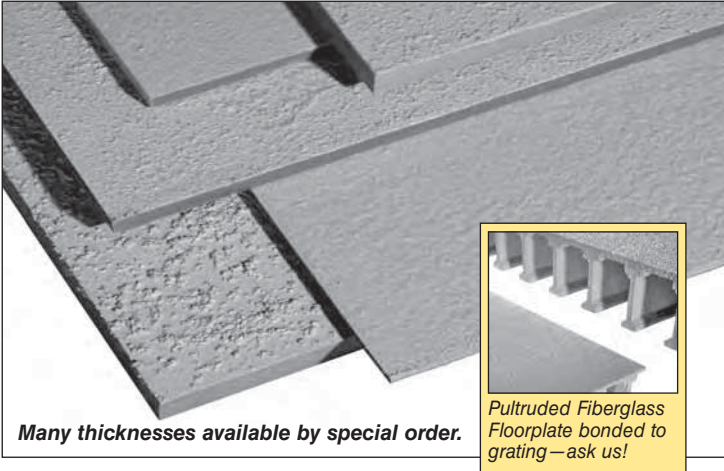
Information is available about longer spans.

MSHD R-6022 2-1/4" Ht. Heavy Duty Rectangular Bar		LOAD TABLE	SAFE LOAD 2:1 SAFETY FACTOR
SPAN	LOAD	100 200 300 500 1000 2000 3000 4000 5000 6000 7000 8000	
12"	Δ U	.000 .000 .000 .001 .001 .003 .004 .005 .007 .008 .009 .011	54000
	Δ C	.000 .000 .001 .001 .002 .004 .006 .009 .011 .013 .015 .017	54000
18"	Δ U	.001 .001 .002 .003 .006 .012 .017 .023 .029 .035 .041 .046	36000
	Δ C	.001 .001 .002 .003 .006 .012 .019 .025 .031 .037 .043 .050	36000
24"	Δ U	.002 .003 .005 .008 .016 .032 .048 .064 .080 .096 .112 .128	27000
	Δ C	.001 .003 .004 .006 .013 .026 .038 .051 .064 .077 .089 .102	27000
30"	Δ U	.004 .007 .011 .018 .036 .072 .107 .143 .179 .215 .250 .286	17280
	Δ C	.002 .005 .007 .011 .023 .046 .069 .092 .114 .137 .160 .183	21600
36"	Δ U	.007 .014 .021 .036 .071 .143 .214 .285 .357 .428 .500 .571	12000
	Δ C	.004 .008 .011 .019 .038 .076 .114 .152 .190 .228 .266 .305	18000
42"	Δ U	.013 .026 .039 .066 .131 .262 .393 .524 .655	8816
	Δ C	.006 .012 .018 .030 .060 .120 .180 .240 .300 .359 .419 .479	15428
48"	Δ U	.022 .044 .066 .110 .220 .440 .660	6750
	Δ C	.009 .018 .026 .044 .088 .176 .264 .352 .440 .528 .616	13500
54"	Δ U	.035 .070 .105 .176 .351	5333
	Δ C	.012 .025 .037 .062 .125 .250 .375 .500 .624	12000
60"	Δ U	.053 .107 .160 .267 .534	4320
	Δ C	.017 .034 .051 .085 .171 .341 .512 .683	10800
66"	Δ U	.078 .155 .233 .389	3570
	Δ C	.023 .045 .068 .113 .226 .452 .678	9818
72"	Δ U	.110 .219 .329 .548	3000
	Δ C	.029 .058 .088 .146 .292 .585	9000

Information is available about longer spans.

- Skid Resistant**
- Cost Effective
- High Strength**
- Easy to Install
- Lightweight**
- Impact Resistant
- Corrosion Resistant**
- Custom Colors/Finishes

Fiberglass Floor Plate



Many thicknesses available by special order.

Pultruded Fiberglass Floorplate bonded to grating—ask us!

CONSTRUCTION/MATERIAL: Pultruded fiberglass polyester solid floor plate

THICKNESSES/WEIGHTS:

1/8" - 1.41#SF STOCK	1/2" - 4.68#SF SPECIAL
3/16" - 1.71#SF SPECIAL	5/8" - 5.79#SF SPECIAL
1/4" - 2.34#SF STOCK	3/4" - 6.94#SF SPECIAL
3/8" - 3.54#SF SPECIAL	1" - 9.27#SF SPECIAL

SIZE: 4' x 8' planks
RESIN: SPF
COLOR: Gray

SURFACE: Fine grit (standard)
 medium or coarse grit (optional)
Non-grit available by special order!

Information for chemical resistance is available—ask us!

McNICHOLS® fiberglass gritted plate is a tough, corrosion resistant floor plate. A unique combination of pultruded fiberglass plate and anti-skid grit surface provides a textured solid sheet flooring that is ideal for both wet and dry environments. Used in a variety of applications, such as trench covers to contain vapors and fumes, or pedestrian bridge walkways for sure footing, **McNICHOLS®** floor plate provides a long lasting maintenance free alternative to steel plate for severe, corrosive environments.

Our website mcnichols.com has even more information!

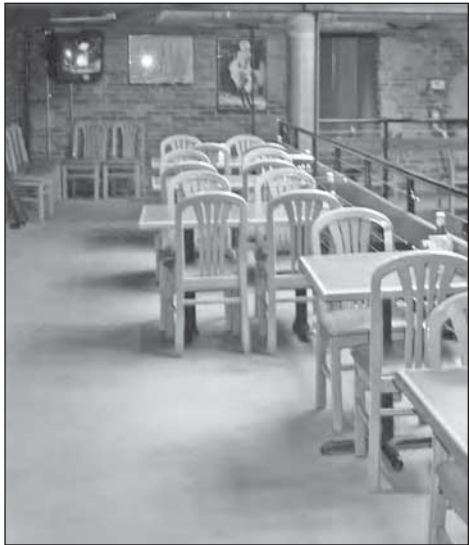
For All Load Tables on this Page
 C Is concentrated load lbs/ft of width
 Δ C Is deflection under concentrated load
 U Is uniform load lbs/ft²
 Δ U Is deflection under uniform load

McNICHOLS® Floor Plate		SPAN = Lengthwise Direction										
		Thick	Span	12"	18"	24"	30"	36"	42"	48"	54"	60"
1/4"	u	167	34	11								
	Δ u	.120	.125	.125								
	c	104	32	14								
	Δ c	.120	.125	.125								
3/8"	u	562	167	55	23	11						
	Δ u	.120	.180	.188	.188	.188						
	c	351	156	69	35	20						
	Δ c	.120	.180	.188	.188	.188						
1/2"	u	1333	370	167	71	34	18	11				
	Δ u	.120	.180	.240	.250	.250	.250	.250				
	c	833	370	209	111	65	40	27				
	Δ c	.120	.180	.240	.250	.250	.250	.250				
5/8"	u	2600	768	326	167	84	45	27	17	11		
	Δ u	.120	.180	.240	.300	.312	.312	.312	.312	.312		
	c	1622	723	407	260	157	99	66	47	34		
	Δ c	.120	.180	.240	.300	.312	.312	.312	.312	.312		
3/4"	u	4499	1333	563	288	167	94	55	34	22		
	Δ u	.120	.180	.240	.300	.360	.375	.375	.375	.375		
	c	2804	1250	702	450	313	205	138	97	71		
	Δ c	.120	.180	.240	.300	.360	.375	.375	.375	.375		
1"	u	10,677	3158	1333	682	396	248	167	108	71		
	Δ u	.120	.180	.240	.300	.360	.420	.480	.500	.500		
	c	6667	2956	1667	1068	740	544	416	305	222		
	Δ c	.120	.180	.240	.300	.360	.420	.480	.500	.500		

• For allowable loads when sheet is spanning in crosswise direction, multiply table values by 0.55 for 1/4" and .70 for all other thicknesses shown here.
 • NOTE: All table values are typical



The Fiberglass Grating used for this stairway is well suited for an outdoor environment.

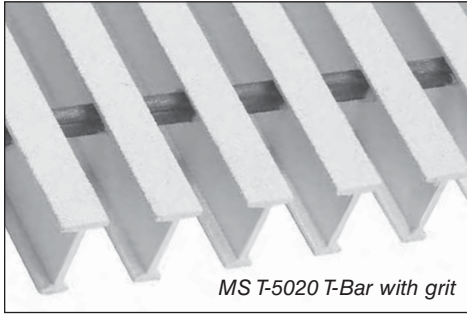


Pultruded Fiberglass Floor Plate was used to make a durable, low maintenance floor for this popular eatery.



With corrosion resistance, long life and a maintenance free design, Fiberglass T-bar grating was a perfect choice for this attractive deck.

♿ Gratings that meet ADA spacing requirements are noted with this symbol.

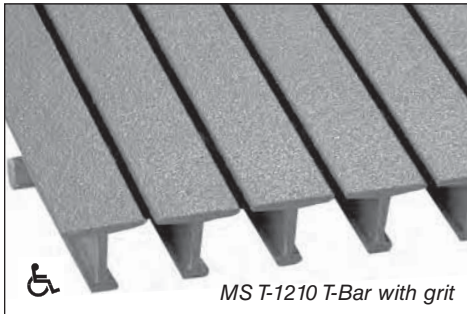


MS T-5020 T-Bar with grit

Pultruded T-Bar with 1.00" top flange spacing

All grating which requires field cutting should have affected ends sealed with catalyzed resin sealant.

Standard cross rod spacing is 6". Other gratings are available by special order by adjusting the spacing of the bearing bar. Economical 12" cross rod spacing is available on special order for jobs requiring minimum fabrication. Load bearing capability is not affected.



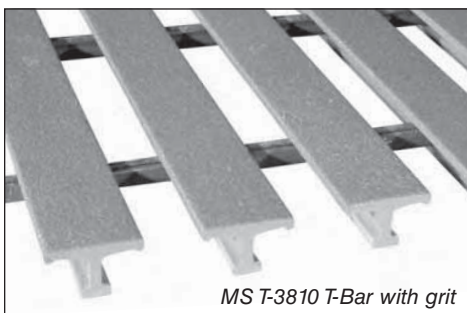
MS T-1210 T-Bar with grit

Pultruded T-Bar with .225" top flange spacing



MS T-1810 T-Bar with grit

Pultruded T-Bar with .375" top flange spacing



MS T-3810 T-Bar with grit

Pultruded T-Bar with .995" top flange spacing

Corrosion Resistant

Fire Retardant

High Longitudinal Strength

Low Maintenance

Maximum Stiffness

Non-Conductive

Impact Resistant

Easy Fabrication

MATERIAL: Pultruded fiberglass shape made from polyester or vinyl ester resin matrix

PATTERN: T-Bar with perpendicular cross bars
6" cross bars standard (12" special)

HEIGHTS: 1", 1-1/2", or 2"
WIDTHS: 3', 4' or 5'

LENGTHS: 8', 10', 12', 20'

RESINS/ SPF (stock) Yellow or gray
COLORS: SVF (special) Yellow or gray
SPW White

White - non fire retardant MS T-1810 (special)

SURFACE: With grit

LOADING: P. 15

Other resins available, ask us!
For Stair Treads, see P. 17

Combining corrosion resistance, long life and a maintenance free design, our fiberglass pultruded T-Bar grating is superior to conventional metals. This advanced grating is also lightweight (half that of steel) and easy to fabricate, making it less expensive to install.

MS T-Bar Series		Bearing Bar Size	Series Number	#/SF	A	B	C	Open Area
END VIEW		2.00" x 1.00"	MS T-3320	3.90#	1.50"	.500"	.900"	33%
		1.00" x 1.00"	MS T-5010	1.60#	2.00"	1.00"	1.625"	50%
END VIEW		2.00" x 1.00"	MS T-5015	1.90#	2.00"	1.00"	1.400"	50%
		2.00" x 1.00"	MS T-5020	3.00#	2.00"	1.00"	1.400"	50%

■ STOCK A = Center to center of bearing bar B = Spacing between bearing bar top flanges C = Spacing between bearing bar bottom flanges

Wide MS T-Bar Series		Bearing Bar Size	Series Number	#/SF	A	B	C	Open Area
END VIEW		1.00" x 1.625" ♿	MS T-1210 ■	2.79#	1.85"	.225"	1.35"	12%
		1.50" x 1.625" ♿	MS T-1215	3.40#	1.85"	.225"	1.35"	12%
END VIEW		1.00" x 1.625" ♿	MS T-1810 ■	2.60#	2.00"	.375"	1.50"	18%
		1.00" x 1.625" ♿	MS T-2510	2.50#	2.12"	.495"	1.50"	25%
		1.00" x 1.625"	MS T-3810 ■	2.10#	2.62"	.995"	1.62"	38%
		1.50" x 1.625"	MS T-3815	2.53#	2.62"	.995"	2.12"	38%

■ STOCK A = Center to center of bearing bar B = Spacing between bearing bar top flanges C = Spacing between bearing bar bottom flanges



Pultruded T-Bar was easily field cut to make this corrosion resistant railroad walkway.



Fiberglass Grating was used to make a strong, slip resistant walkway for this outdoor setting.

SAFPLANK® Fiberglass Plank

- Easy Installation
- Strong, yet Lightweight
- Non-Sparking
- Interlocking
- Corrosion Resistant
- Low In Conductivity

MATERIAL: Pultruded composite of fiberglass reinforcements (glass and mat) and a UV inhibited thermoset resin system.

PATTERN: Interlocking planks

HEIGHT: 2"

WIDTHS: 12", 24"

LENGTHS: 20', 24'

WEIGHTS: 12" solid - 2.6 lb./lin. ft.
24" solid - 5.1 lb./lin.ft.
12" slotted - 2.5 lb./lin.ft.
24" slotted - 4.8 lb./lin.ft.

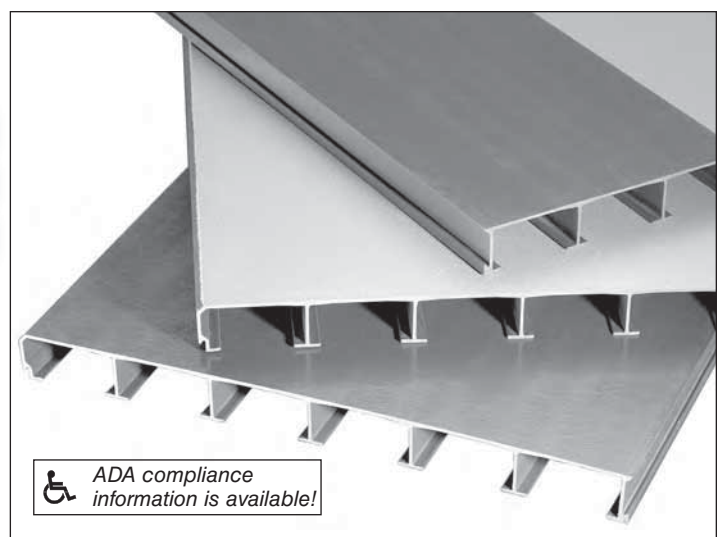
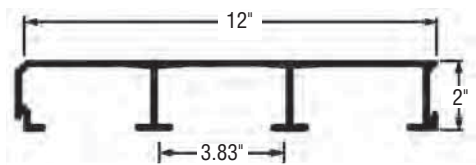
RESIN/COLOR: SPF - Slate Gray

SURFACE: Grit; non-grit avail. (special)

The spacing between legs of 24" wide SAFPLANK® is 3.98".



A slotted surface is available. Slots are 7/16" wide x 1.83" long. Slots meet ADA requirements as long as they run perpendicular to "the direction of the traffic."



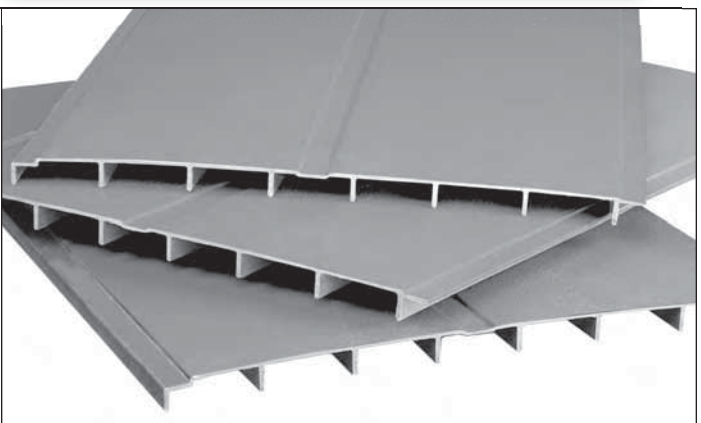
ADA compliance information is available!

SAFPLANK® is a high strength system of fiberglass planks designed to interlock to form a continuous solid surface. It is intended to replace wood, aluminum or steel planks in environments where corrosion or rotting creates costly maintenance problems or unsafe conditions.

SPAN		SAFPLANK® Load/Deflection Data										
		12" SAFPLANK®					24" SAFPLANK®					
		50	100	200	300	500	1000	100	200	300	500	1000
24"	△ U	.006	.011	.023	.034	.057	.113	.015	.030	.045	.075	.151
	△ C	<.005	.009	.018	.027	.045	.091	.012	.024	.036	.060	.121
36"	△ U	.022	.043	.087	.130	.217	—	.046	.092	.138	.231	—
	△ C	.012	.023	.046	.070	.116	.232	.024	.049	.074	.123	.246
48"	△ U	.062	.123	.247	.370	—	—	.133	.265	.398	—	—
	△ C	.025	.049	.099	.148	.247	.494	.053	.106	.159	.265	—
60"	△ U	.140	.281	.562	—	—	—	.302	.605	—	—	—
	△ C	.045	.090	.180	.270	.450	—	.097	.193	.290	.484	—
72"	△ U	.291	.583	—	—	—	—	.627	—	—	—	—
	△ C	.078	.155	.311	.466	—	—	.167	.334	.501	—	—

△ U = Typical deflection under uniform load in inches
△ C = Typical deflection under concentrated load in inches
For slotted SAFPLANK®, divide the deflection values by .95.

SAFDECK® Fiberglass Decking



- Low In Conductivity
- Non-Sparking
- Corrosion Resistant
- Overlapping

SPAN		SAFDECK® Load/Deflection Data						
		25	50	60	75	100	200	300
24"	△ U	.015	.030	.036	.044	.059	.119	.179
	△ C	.012	.023	.029	.036	.048	.096	.143
36"	△ U	.063	.126	.151	.189	.252	—	—
	△ C	.032	.064	.081	.101	.134	.269	—
48"	△ U	.215	.430	—	—	—	—	—
	△ C	.073	.147	.206	.257	.343	—	—

Information about spacing between legs of SAFDECK® is available.

△ U = Typical deflection under uniform load in inches
△ C = Typical deflection under concentrated load in inches

MATERIAL: Pultruded composite of fiberglass reinforcements (glass and mat) and UV inhibited thermoset resin system.

PATTERN: One-piece overlapping decking system

HEIGHT: 1.125"

WIDTHS: 24"

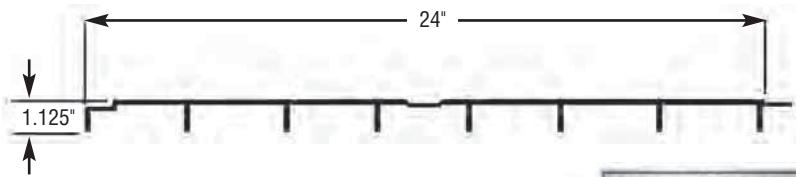
LENGTHS: 20', 24'

WEIGHTS: 24" - 4.1 lb./lin.ft.

RESIN/COLOR: SPF - Slate Gray

SURFACE: Grit; available non-grit (special)

SAFDECK® is a system of 24" wide fiberglass planks designed to overlap for a continuous solid surface. It is intended to replace wood, aluminum or steel decking in environments where corrosion or rotting creates costly maintenance or unsafe conditions. Low in conductivity and nonsparking, SAFDECK® provides safe walkways in applications near electrical lines. Other resins and colors are available upon request.

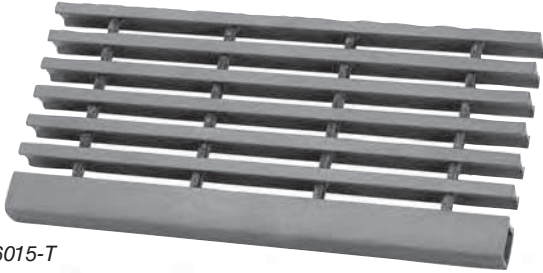


Fiberglass Stair Treads & Covers

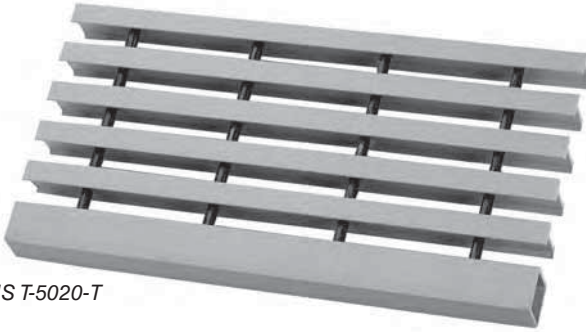
NOTE: Since fiberglass grating will not provide lateral stiffness for stairs, struts or bracing should be provided on bottom flange of stringers. .25" deflection is recommended as the maximum to provide pedestrian comfort, which can be exceeded at the discretion of the engineer.

Product Details

Pultruded



MS I-6015-T



MS T-5020-T

Molded



MS R-150-T

NOTE: When maximum span is based on 300 lbs. at mid-span and deflection is restricted to 1/8", span should not exceed 31". For 1/4" deflection, tread span may be a maximum length of 38".

McNICHOLS® Molded Rectangular Tread

MATERIAL: Molded polyester resin	MESH: 1-1/2" x 6"
HEIGHT: 1-1/2"	RESIN: SGF <i>Ask us about other resins.</i>
WIDTHS: 7-5/8", 9-1/8", 10-5/8"	COLOR: Gray, Green
LENGTHS: 12", 18", 24", 30", 36", 42"	SURFACE: Grit
	OPEN AREA: 67%

Information on full panels is available.

McNICHOLS® Pultruded I- or T-Bar Treads

MATERIAL: Pultruded polyester	RESIN: SPF
HEIGHT: 1" or 1-1/2" I-Bar 2" T-Bar only	COLORS: Yellow or green
WIDTHS: I-Bar 11" T-Bar 12"	SURFACE: Gritted or non-grit

Max Span for 300 at Midspan

Style	1/8" Deflection or less	1/4" Deflection or less
MS I-6010-T	29"	37"
MS I-6015-T	40"	52"
MS T-5020-T	47"	59"

McNICHOLS® Molded Stair Tread Covers

MATERIAL: Molded fiberglass mat
WIDTH: 9", 10"
THICKNESS: 1/8"
LENGTHS: 12'
RESIN: SGF
COLOR: Gray with yellow nosing
SURFACE: Grit

We have information on chemical resistance.



Nosings for Stair Treads and Landings

Stair treads and landing are produced by attaching a 2" deep nosing to the leading edge. This gives added strength and rigidity

to the area that takes impact and abuse. In addition, the nosing provides more surface area for skid resistance, wear and

better visibility. Gray stair treads with yellow nosing are available at additional cost.



Pultruded Fiberglass Grating provides a safe walkway.



Square Molded Fiberglass used for this trench covering allows drainage.



Pultruded Fiberglass Wide T-Bar Grating was used on this stairway and platform assembly.

McNICHOLS Polycast® Presloped Trench Drain System

See www.mcnichols.com
for Installation and
Usage Instructions!

Chemical Resistant

Low Water Absorption

Easy to Install

High Durability

High Strength

CONSTRUCTION/MATERIAL:

Polymer concrete, a high strength, chemical resistant, closed cell material.

20' Run (450#) Includes:

- 5 48" Presloped Channel Sections
- 10 Slotted Cast Iron Grates
- 11* Grating Locking Devices
- 7* Installation Alignment Chairs
- 1 Outlet End Cap
- 1 Inlet End Cap

Sold in kits only.

40' Run (900#) Includes:

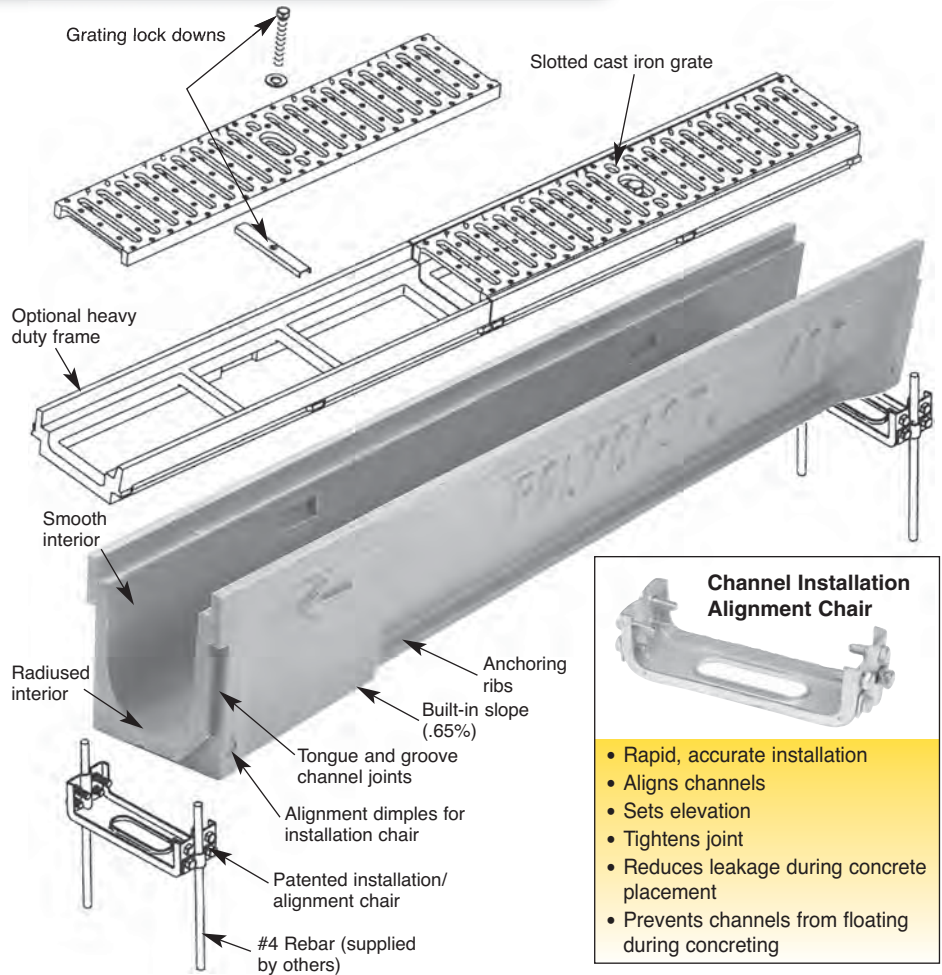
- 10 48" Presloped Channel Sections
- 20 Slotted Cast Iron Grates
- 21* Grating Locking Devices
- 12* Installation Alignment Chairs
- 1 Outlet End Cap
- 1 Inlet End Cap

*Quantities given include one (1) extra item.

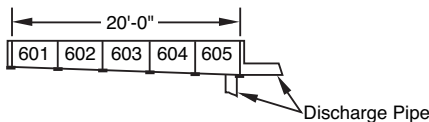
Optional HEAVY DUTY FRAME AVAILABLE-Ask Us!

Polycast® presloped trench drain system is designed for a variety of applications, both indoor and outdoor, commercial and industrial.

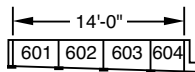
Drain is 4 times stronger than ordinary cement concrete. It is designed to have flow rates equal to, or greater than, most larger poured-in-place trench drains. With the proper components, a flowrate of 840 GPM per outlet is attainable.



20' Run Application



Job Site Customizing



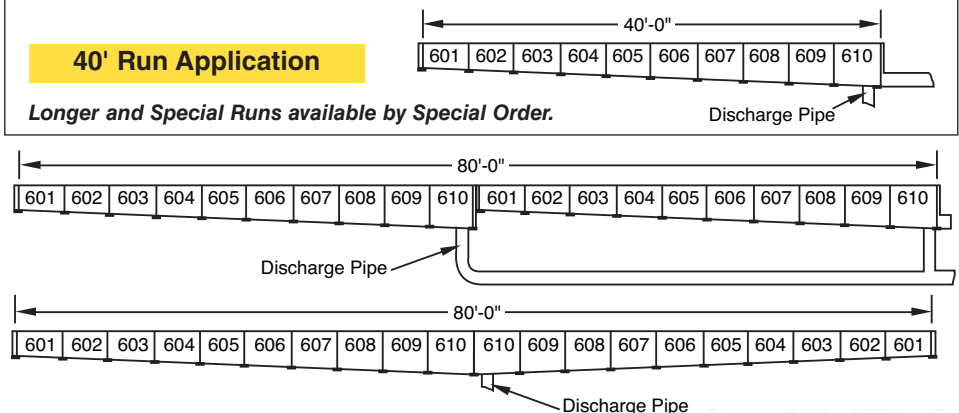
NOTE: Cut 604 channel in half with abrasive saw.



The installation/alignment chairs add to the ease of installing the trench drain system.

40' Run Application

Longer and Special Runs available by Special Order.



Grating Fasteners • Fiberglass Studs and Nuts Fiberglass Curb Angle • Elevated Floor Pedestals

Fiberglass Grating Accessories

Type Z/J Stainless 316 or 304 (1", 1-1/2" or 2") For Molded Fiberglass Grating to secure planks to support frames. No hardware. To order clip and hardware specify Type J. (Type Z has no hardware.)

Type M Stainless 316 (1", 1-1/2" or 2") For Molded Fiberglass Grating to secure planks to support frame using two adjacent bars for support.

Type F Stainless 316 (1", 1-1/2" or 2") For Molded Fiberglass end planks to join side bars that are butted end to end.

Type SSGC Stainless 316 (1", 1-1/2", or 2") For close bar spacings or to hold plate to a structure.

Type MT Stainless steel 316 (1", 1-1/2", or 2") For Pultruded Fiberglass T-Bar Grating to secure planks to support frame using two adjacent bars for support. Please specify bar spacing and height.

Type FSSGF Stainless Steel 316 (specially formed flat bottom, bearing pad facing up to protect Fiberglass member surfaces from puncture. Attach pultruded Fiberglass Grating to Fiberglass structural member. (FSSGF attaches Pultruded Fiberglass Grating to steel members. Does not have flat bearing pad.)

Type SSGG Stainless Steel 316 (available for 1", 1-1/2", or 2" bar height. 3/4" or smaller flange or structural member thickness—please specify requirement) Attach grating to structural shape with horizontal edge. Standard GG clips are for grating with 7/8" to 1" gap between bearing bars (for closer spacing please inquire).

Type CBF Stainless Steel 316 or 304 Fits 1-3/16" bearing bar centers and is used with Pultruded I-Bar Fiberglass Gratings. (Placed over two main bearing bars and screwed to grating support.)

Type RT/RI Stainless Steel 316 (any height) For Pultruded Fiberglass T-Bar or I-Bar Grating, slides between two bars and holds the bottom flange down to support frame. Clip is below walking surface. Please specify bar spacing and bar type.

Information on quantities is available.

FASTENERS



★ Hardware included with fastener. Please inquire for all others.
Minimum quantity may apply—please inquire.

Fiberglass Studs and Nuts

Corrosion Resistant

UV Inhibitor

Non-Conductive

Cost Effective

Versatile Color



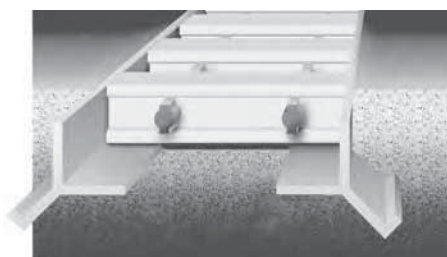
Typical Applications

Chemical Processing Equipment • Marine Applications
Air and Water Pollution Equipment
Cellular Antenna Mounts and Screens

MATERIAL: Studs machined from pultruded vinyl ester rods
Thermoplastic hex nuts
DIAMETERS: 3/8", 1/2", 5/8" (stock), 3/4", 1"
LENGTHS: 4' (bolt length) or custom
COLOR: Brown

Our fiberglass studs and nuts are ideal for applications requiring mechanical fasteners that must be non-corrosive, non-conductive and/or transparent to electromagnetic waves. These studs are machined from pultruded fiberglass vinyl ester rods. The hex shaped nut is thermoplastic. They are easily assembled with a standard six point socket wrench.

The studs and hex nuts are available in diameters of 3/8", 1/2", 5/8", 3/4" and 1". Four foot bolt lengths are standard, with custom lengths and partial length threading available on request. Brown is the standard color. The studs and nuts have UV inhibitors to provide resistance to ultraviolet degradation and corrosion.



Fiberglass Curb Angle

Non-Conductive

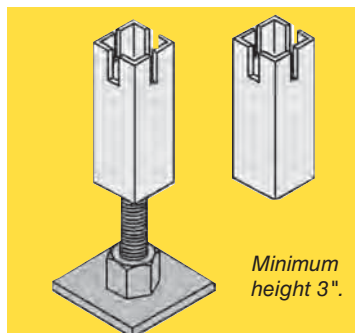
Fire Retardant

Long Life

MATERIAL: Pultruded vinyl ester
HEIGHTS: For Grating Heights of 1", 1-1/2", 2"
WIDTH: 1-1/2"
LENGTH: 20'
THICKNESS: 1/4"
RESIN: SVF
COLOR: Gray

Our curb angle has a built-in continuous angle that locks into concrete, eliminating the need for individual anchors. The standard resin is a fire retardant gray vinyl ester. A surfacing veil provides optimum resin performance and wear protection.

Fiberglass curb angle is engineered using a composite of continuous glass fibers, two continuous strand glass mats, a surfacing veil and fire retardant vinyl ester resin. This unique combination produces superior strength, stiffness and long-term corrosion resistance. Curb angle is available in 20' lengths.



Elevated Floor Pedestals

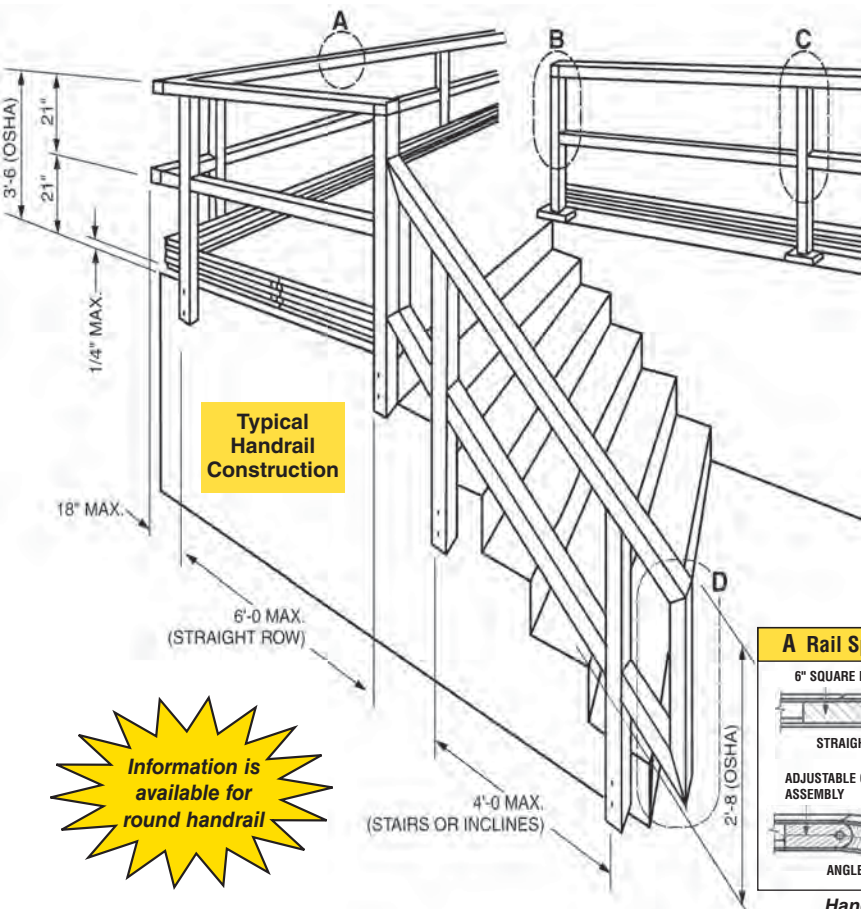
Fixed and adjustable legs for molded grating are available to provide sturdy support for elevated flooring.

More information is available.

Fiberglass Handrail Systems & Components

- Low Conductivity
- Low Maintenance
- Corrosion Resistant
- Easy Fabrication
- Lightweight
- Structurally Sound

Handrail Systems Handrail systems can be made to comply with OSHA standards—information is available.



Information is available for round handrail

CONSTRUCTION/MATERIAL: Handrail and ladder systems feature pultruded fiberglass posts, rail and rungs made using fire retardant yellow polyester resin system that is UV resistant. End caps, corner assemblies, and other connectors are made of non-fire retardant molded thermoplastic ABS (in various colors); rungs are yellow pultruded fiberglass polyester tube with fluted non-skid surface.

SIZE: Assorted
Rungs (18" rung; 12" rung spacings)

Ladders and Cages

Part Identification

- Side Rail
- Rung
- Top or Bottom Hoop
- Intermediate Hoop
- Cage Straps
- Standoff Bracket
- Standoff Bracket
- Base Angle
- End Plug

Custom designed ladders and cages available by special order.

See www.mcnichols.com for more information on structural shapes - fiberglass ladders

<p>A Rail Splice</p> <p>6" SQUARE PLUG</p> <p>STRAIGHT</p> <p>ADJUSTABLE CORNER ASSEMBLY</p> <p>ANGLE</p>	<p>B End Post to Rail</p> <p>4" SPLIT TUBE CONNECTOR 90° CORNER</p>	<p>C Line Post to Rail</p> <p>8" SPLIT TUBE CONNECTOR 4" SPLIT TUBE CONNECTOR</p>	<p>D Stair Rail Return</p> <p>(2) ADJUSTABLE CORNER ASSEMBLIES</p>
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Handrail Connection Details: All components secured with epoxy

Post or Rail

1.90" OD
2" x 2" x .156" tube
Length: 240"

Post Base

(Mounted to Post)

Square Plug

Length: 6"
1.01" Hole
1.68" Square

Kickplate

4" x 1/2"
Length: 240"

Adj. Corner Assembly

(Square)
4.9" from 1/4" screw pin to end
Legs 1.68" square

90° Corner

(Square)
2" cube end
2.5" legs
Legs 1.68" square

End Cap

2" Square
Note:
For Capping Tubes
(Special Construction)

Split Tube Connector

.14" wall
Length: 4" (top rail to post)
8" (post to mid rail)