

Fiberglass Pultruded Flooring

Corrosion Resistant

Slip Resistant

Fire Retardant

High Strength-to-Weight Ratio

Non-Conductive

Low Installation Cost

Long Service Life

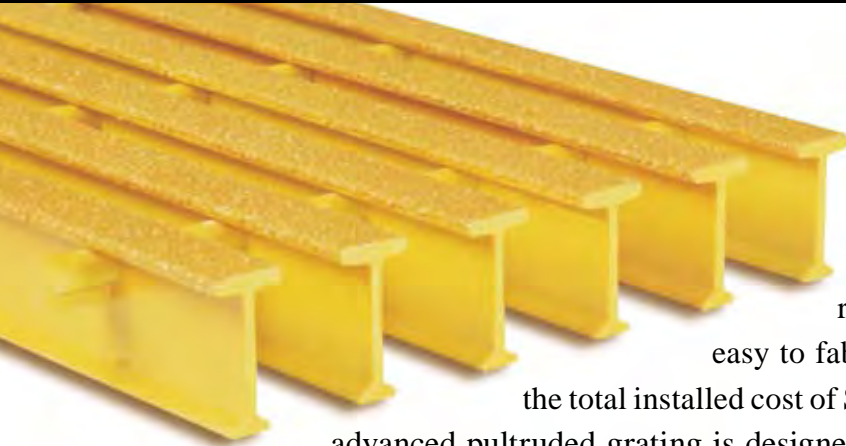
Superior Ergonomics

Fibergrate
Composite Structures

High Performance Composite Solutions



Pultruded Flooring Products



Combining corrosion resistance, long life and a low-maintenance design, Safe-T-Span[®] pultruded grating is superior to conventional metallic gratings. This advanced grating is manufactured with a recessed tie bar configuration and is lightweight and easy to fabricate. Savings on labor and equipment often make the total installed cost of Safe-T-Span grating comparable to that of steel. This advanced pultruded grating is designed for use in a wide range of industrial applications that require strength and corrosion resistance. Manufactured with a high percentage of glass within the laminate, pultruded grating provides durability, extremely high unidirectional strength and stiffness. Due to its exceptional stiffness, it can be used with confidence where wide support spans are required. For most

applications where it is used to replace steel grating, Safe-T-Span industrial grating rarely requires additional support. Combining its low cost of installation with low-maintenance and long life, Safe-T-Span offers a life cycle cost that is significantly lower than that of its metal counterpart.

The Safe-T-Span line includes High Load Capacity (HLC) grating for up to H20 vehicular loads, industrial grating for standard industrial loads and pedestrian grating for pedestrian traffic. Specially designed gratings for barefoot traffic in the recreation industry are available in the Aqua Grate[®] line. Another pultruded product, Dynadeck[®] interlocking flooring is available to provide a transportable solid-top flooring.

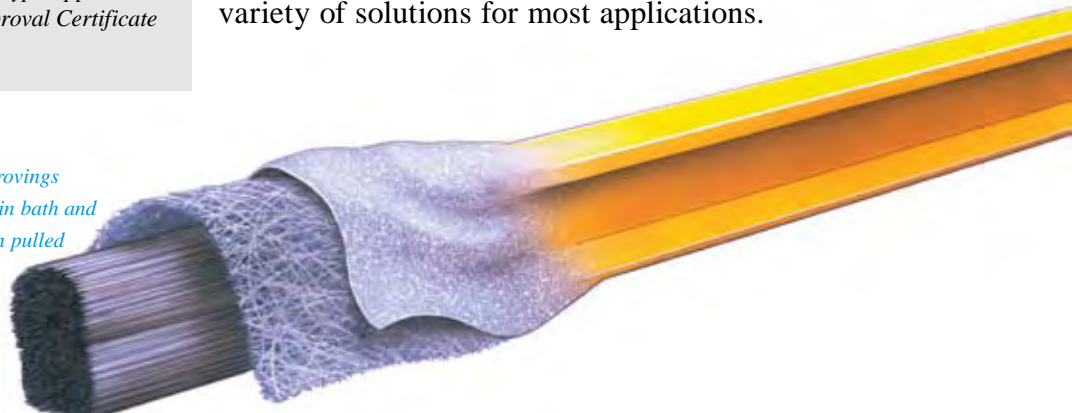
Fibergrate's complete line of pultruded products offers a variety of solutions for most applications.

Safe-T-Span[®] Grating Resin Systems

- **ISOFR** - isophthalic polyester resin formulation with a low flame spread rating of 25 or less designed for applications where there is moderate exposure to corrosive elements. (DNV Type Approval Certificate No. F-16856)
- **VEFR** - vinyl ester resin system with a flame spread of 25 or less for dependable resistance to both acidic and alkaline environments.
- **PHENOLIC** - a Coast Guard approved flame-resistant phenolic resin with an extremely low flame spread of 5 or less and a smoke index of 45 or less - designed primarily for the offshore industry (Coast Guard approved for Level 2 performance criteria - Approval Number: 164.040/2/0; DNV Type Approval Certificate No. F-16856; ABS Product Type Approval Certificate No. 01-H534733-X)



To form a pultruded element, continuous fiber rovings and mat are mechanically drawn through a resin bath and shaped through a series of forming guides, then pulled through a heated die.



- **Corrosion Resistance** - the use of premium grade, isophthalic polyester or vinyl ester resin systems and a synthetic surfacing veil maintains structural integrity
- **Slip Resistance** - a durable grit surface, permanently bonded and baked to the grating surface, provides a safe, slip-resistant walkway
- **Lightweight Yet Durable** - less than one-half the weight of steel grating allowing easy removal for access below floor level and installation with no heavy equipment and less manpower required
- **Fire Retardant** - flame spread rating of 25 or less, when tested in accordance with ASTM E-84; meets the self-extinguishing requirements of ASTM D-635
- **Low Maintenance** - corrosion resistant and requires no scraping, sandblasting or painting



Safe-T-Span pultruded industrial grating at a pulp and paper loading area.

Applications

- Flooring
- Platforms
- Walkways
- Assembly Lines
- Trench Covers
- Stairs
- Catwalks
- Ramps
- Greenhouse Shelving
- Pool Drainage
- Portable Building Floors

Markets

- Chemical
- Electronics
- Marine (including military vessels)
- Oil & Gas
- Petroleum Processing
- Plating
- Pulp and Paper
- Water/Wastewater
- Zoos/Aquariums
- Recreational Facilities
- Manufacturing

- **UV Protection** - UV inhibitors included in the resin formulation, along with a surfacing veil and grit top surface for optimum protection from the effects of weathering (*Phenolic resin grating does not have the UV inhibitor or veil and therefore must be coated for UV protection*)
- **Easily Fabricated** - no need for lifting equipment or expensive tools; can be easily carried by two workers and cut using standard circular or saber saws fitted with abrasive blades
- **Electrically and Thermally Non-Conductive** - providing additional worker safety
- **Electronically Transparent** - does not affect electromagnetic or radio wave frequencies

Grating Selections and Accessories

Selection of Safe-T-Span® Pultruded Industrial Grating

6" Tie Bar Spacing Standard

Series	Panel Depth	Load Bar Spacing	Stocked Sizes		Load Bars/Ft.	Wt/ Sq. Ft.	Open Area	Resin/Color		
			Width	Length				ISOFR	VEFR	PHENOLIC*
I6010	1"	1-1/2"	3', 4'	10', 20'	8	2.4 lbs	60%	Yellow	Dk Gray	—
I5010	1"	1.2"	3', 4'	10', 20'	10	3.3 lbs	50%	Yellow	Dk Gray	—
I4010 	1"	1"	3', 4'	10', 20'	12	3.4 lbs	40%	Yellow	Dk Gray	—
I6015	1-1/2"	1-1/2"	3', 4'	10', 20'	8	2.8 lbs	60%	Yellow	Dk Gray	Brown
I5015	1-1/2"	1.2"	3', 4'	10', 20'	10	3.5 lbs	50%	Yellow	Dk Gray	—
I4015 	1-1/2"	1"	3', 4'	10', 20'	12	4.1 lbs	40%	Yellow	Dk Gray	Brown
T5020	2"	2"	3', 4'	10', 20'	6	3.1 lbs	50%	Yellow	Dk Gray	—
T3320 	2"	1-1/2"	3', 4'	10', 20'	8	4.0 lbs	33%	Yellow	Dk Gray	—

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

Selection of Safe-T-Span® Pultruded Pedestrian Grating

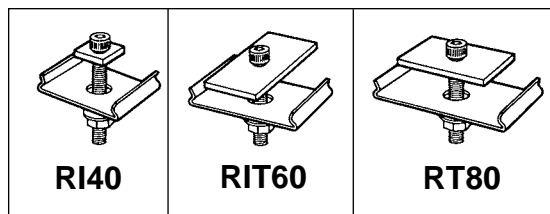
12" Tie Bar Spacing Standard

Series	Panel Depth	Load Bar Spacing	Stocked Sizes		Load Bars/Ft.	Wt/ Sq. Ft.	Open Area	Resin/Color		
			Width	Length				ISOFR	VEFR	PHENOLIC*
T3810	1"	2.4"	3', 4'	10', 20'	5	1.9 lbs	38%	Dk Gray	Dk Gray	—
T2510 	1"	2"	3', 4'	10', 20'	6	2.3 lbs	25%	Dk Gray	Dk Gray	—
T1210 	1"	1.7"	3', 4'	10', 20'	7	2.7 lbs	12%	Dk Gray	Dk Gray	—
T3815	1-1/2"	2.4"	3', 4'	10', 20'	5	2.7 lbs	38%	Dk Gray	Dk Gray	—
T2515 	1-1/2"	2"	3', 4'	10', 20'	6	3.2 lbs	25%	Dk Gray	Dk Gray	—
T1215 	1-1/2"	1.7"	3', 4'	10', 20'	7	3.6 lbs	12%	Dk Gray	Dk Gray	—

(5' widths and 8', 12' and 24' lengths available with extended lead times) For load/deflection information on pultruded grating, see tables in this brochure.

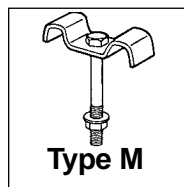
Clip Assemblies for Safe-T-Span® Pultruded Grating

Fibergrate's patented Type R Hold Down Clip Assembly of Type 316 stainless steel offers effective and easy installation of pultruded grating. Type R Hold Down Clips secure grating below the walking surface.



- RI40 for I4010 and I4015 grating
- RIT60 for I6010, I6015 and T3320 grating
- RT80 for T5020 grating
- RT12 for T1210 and T1215 grating
- RT25 for T2510 and T2515 grating

Fibergrate also offers Type M Hold Down Clip Assemblies for many type of pultruded grating:



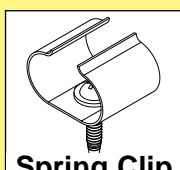
- MI40 for I4010 and I4015 grating
- MI60 for I6010 and I6015 grating
- MT5020 for T5020 grating
- MT3320 for T3320 grating
- MT3810 for T3810 grating
- MT3815 for T3815 grating
- HL58 Clip (also a Type M clip) for HL5815, HL5820, HL5825 and HL5830 HLC Grating



Sealing Kits

To maintain corrosion resistance and structural integrity, Fibergrate offers standard resin sealing kits for protecting the exposed ends of cut panels and other components.

NEW!



Spring Clip

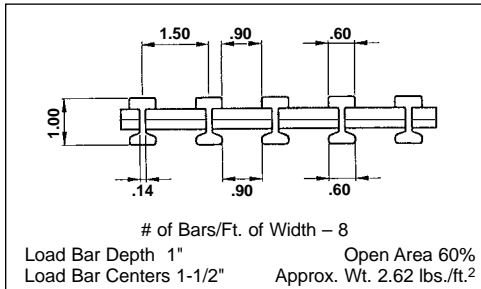
The T12 Spring Clip is designed for specialty applications where grating needs to be removed without removing the hardware. The grating is held securely in place below the surface, but can be released with a firm upward force. For the T12 Pultruded Grating Series.

Safe-T-Span® Industrial Grating

Safe-T-Span industrial grating comes in 1" and 1-1/2" depths in an I-bar configuration with 40%, 50% and 60% open areas for most applications. 2" depth T-bar configuration with either 33% or 50% open area is also available for applications which require wider spans or lower deflections.

Details *Refer to chart on Page 4 for Grating Selection*

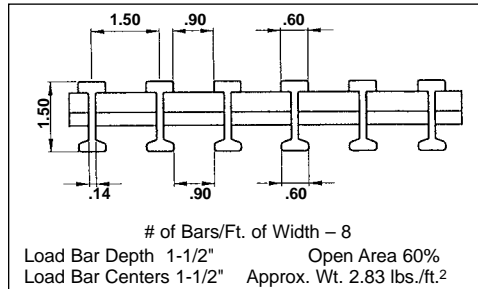
1" Deep, I6010



Engineering Properties per FT of Width

A=2.64 IN² I=0.33 IN⁴ S=0.63 IN³
Average EI = 1,700,000 lb-in² (SPAN ≥ 24")

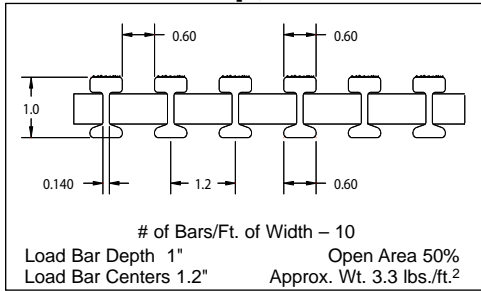
1-1/2" Deep, I6015



Engineering Properties per FT of Width

A=3.20 IN² I = 0.94 IN⁴ S = 1.20 IN³
Average EI = 4,600,000 lb-in² (SPAN ≥ 24")

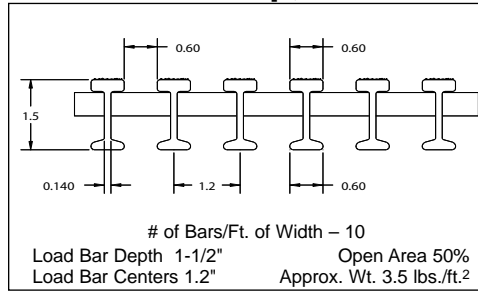
1" Deep, I5010



Engineering Properties per FT of Width

A=3.30 IN² I=0.41 IN⁴ S=0.79 IN³
Average EI = 2,100,000 lb-in² (SPAN ≥ 24")

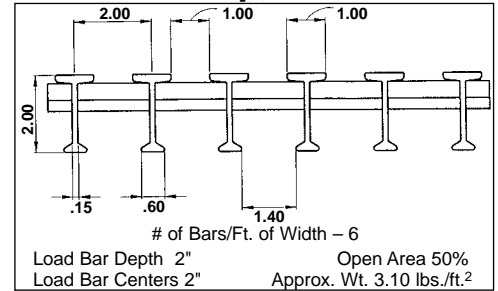
1-1/2" Deep, I5015



Engineering Properties per FT of Width

A=4.00 IN² I = 1.17 IN⁴ S = 1.65 IN³
Average EI = 5,700,000 lb-in² (SPAN ≥ 24")

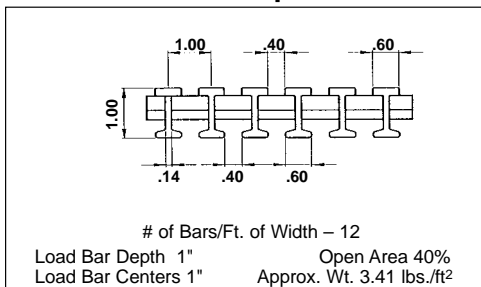
2" Deep, T5020



Engineering Properties per FT of Width

A=3.20 IN² I=1.68 IN⁴ St=1.96 IN³ Sb=1.47 IN³
Average EI = 7,600,000 lb-in² (SPAN ≥ 24")

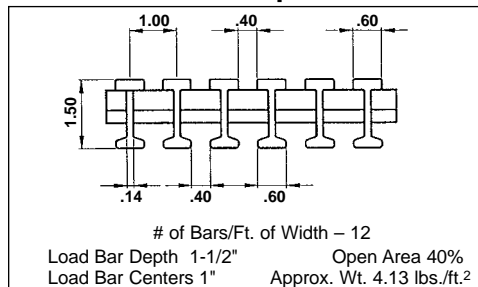
1" Deep, I4010 ADA Compliant



Engineering Properties per FT of Width

A=3.96 IN² I=0.5 IN⁴ S=0.95 IN³
Average EI = 2,500,000 lb-in² (SPAN ≥ 24")

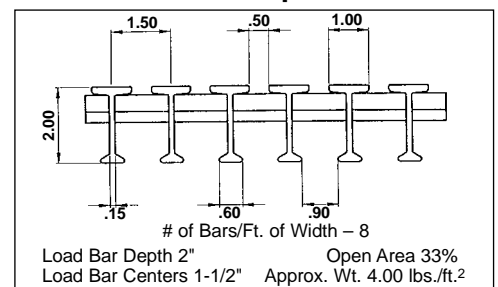
1-1/2" Deep, I4015 ADA Compliant



Engineering Properties per FT of Width

A=4.80 IN² I=1.41 IN⁴ S=1.80 IN³
Average EI = 7,000,000 lb-in² (SPAN ≥ 24")

2" Deep, T3320 ADA Compliant



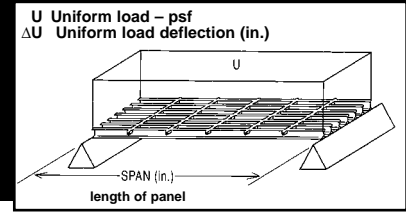
Engineering Properties per FT of Width

A=4.28 IN² I=2.24 IN⁴ St=2.61 IN³ Sb=1.96 IN³
Average EI = 9,200,000 lb-in² (SPAN ≥ 24")



Phenolic pultruded industrial grating used on an offshore platform.

Industrial Uniform Load Chart

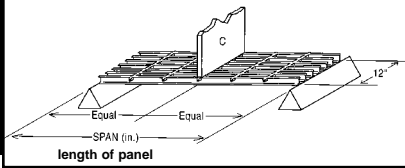


CLEAR SPAN (in)	LOAD (psf)								MAXIMUM RECOMMENDED LOAD	ULTIMATE CAPACITY (psf)
	STYLE	50	100	200	300	500	1,000	2,000		
12	16010	<.01	<.01	<.01	<.01	0.01	0.02	0.04	3570	7140
	16015	<.01	<.01	<.01	<.01	<.01	0.01	0.02	7620	15240
	15010	<.01	<.01	<.01	<.01	<.01	0.01	0.03	4460	8920
	15015	<.01	<.01	<.01	<.01	<.01	<.01	0.01	9520	19050
	T5020	<.01	<.01	<.01	<.01	<.01	<.01	0.01	7560	15120
	14010	<.01	<.01	<.01	<.01	<.01	0.01	0.02	5350	10700
	14015	<.01	<.01	<.01	<.01	<.01	<.01	0.01	11430	22860
	T3320	<.01	<.01	<.01	<.01	<.01	<.01	0.01	10080	20160
18	16010	<.01	0.01	0.02	0.02	0.04	0.08	0.16	2260	4520
	16015	<.01	<.01	<.01	0.01	0.02	0.03	0.06	4910	9820
	15010	<.01	<.01	0.01	0.01	0.03	0.06	0.12	2820	5650
	15015	<.01	<.01	<.01	<.01	0.01	0.02	0.04	6130	12270
	T5020	<.01	<.01	<.01	<.01	0.01	0.02	0.05	5040	10080
	14010	<.01	<.01	0.01	0.02	0.03	0.05	0.11	3390	6780
	14015	<.01	<.01	<.01	<.01	0.01	0.02	0.04	7370	14740
	T3320	<.01	<.01	<.01	<.01	0.01	0.02	0.04	6720	13440
24	16010	0.01	0.02	0.05	0.07	0.12	0.24	—	1690	3380
	16015	<.01	0.01	0.02	0.03	0.04	0.09	0.17	3190	6380
	15010	<.01	0.01	0.04	0.05	0.09	0.19	—	2110	4220
	15015	<.01	<.01	0.01	0.02	0.03	0.07	0.13	3980	7970
	T5020	<.01	<.01	<.01	0.02	0.03	0.05	0.11	2970	5940
	14010	0.01	0.02	0.03	0.05	0.08	0.16	0.31	2540	5080
	14015	<.01	<.01	0.01	0.02	0.03	0.06	0.11	4790	9580
	T3320	<.01	<.01	<.01	0.01	0.02	0.04	0.08	3960	7920
30	16010	0.03	0.05	0.11	0.16	0.27	—	—	1370	2740
	16015	0.01	0.02	0.04	0.06	0.10	0.20	0.41	2950	5900
	15010	0.02	0.04	0.08	0.12	0.21	0.44	—	1710	3420
	15015	<.01	0.01	0.03	0.04	0.08	0.16	0.32	3680	7370
	T5020	<.01	0.01	0.02	0.03	0.06	0.13	0.25	2590	5180
	14010	0.02	0.04	0.07	0.11	0.18	0.36	—	2060	4120
	14015	<.01	0.01	0.03	0.04	0.07	0.14	0.27	4420	8840
	T3320	<.01	0.01	0.02	0.03	0.05	0.09	0.19	3460	6920
36	16010	0.05	0.10	0.21	0.31	—	—	—	1180	2360
	16015	0.02	0.04	0.08	0.11	0.19	0.38	—	2460	4920
	15010	0.04	0.08	0.16	0.24	—	—	—	1470	2950
	15015	0.01	0.03	0.06	0.08	0.15	0.30	—	3070	6150
	T5020	0.01	0.02	0.05	0.07	0.12	0.23	0.47	2160	4320
	14010	0.03	0.07	0.14	0.21	0.35	—	—	1760	3520
	14015	0.01	0.03	0.05	0.08	0.13	0.25	0.50	3690	7380
	T3320	0.01	0.02	0.04	0.05	0.09	0.18	0.35	2880	5760
42	16010	0.09	0.19	0.37	—	—	—	—	950	1900
	16015	0.04	0.07	0.14	0.21	0.35	—	—	1840	3680
	15010	0.07	0.15	0.29	0.44	—	—	—	1180	2370
	15015	0.03	0.05	0.11	0.16	0.28	—	—	2300	4600
	T5020	0.02	0.05	0.09	0.14	0.23	0.45	—	1850	3700
	14010	0.06	0.12	0.25	0.37	—	—	—	1430	2860
	14015	0.02	0.05	0.09	0.14	0.23	0.47	—	2760	5520
	T3320	0.02	0.03	0.07	0.10	0.17	0.34	—	2470	4940
48	16010	0.14	0.29	—	—	—	—	—	720	1440
	16015	0.06	0.11	0.23	0.34	—	—	—	1410	2820
	15010	0.11	0.23	0.45	—	—	—	—	900	1800
	15015	0.04	0.08	0.18	0.27	0.45	—	—	1760	3520
	T5020	0.04	0.07	0.14	0.21	0.36	—	—	1620	3240
	14010	0.10	0.19	0.38	—	—	—	—	1080	2160
	14015	0.04	0.08	0.15	0.23	0.38	—	—	2110	4220
	T3320	0.03	0.05	0.11	0.16	0.27	—	—	2160	4320
54	16010	0.25	—	—	—	—	—	—	570	1140
	16015	0.10	0.19	0.39	—	—	—	—	1110	2220
	15010	0.20	0.40	—	—	—	—	—	710	1420
	15015	0.08	0.15	0.31	0.46	—	—	—	1380	2770
	T5020	0.06	0.12	0.24	0.36	—	—	—	1280	2560
	14010	0.17	0.34	—	—	—	—	—	850	1700
	14015	0.06	0.13	0.26	0.39	—	—	—	1670	3340
	T3320	0.04	0.09	0.18	0.27	0.45	—	—	1680	3360
60	16010	0.42	—	—	—	—	—	—	460	920
	16015	0.15	0.31	—	—	—	—	—	900	1800
	15010	0.33	—	—	—	—	—	—	570	1150
	15015	0.12	0.24	0.49	—	—	—	—	1120	2250
	T5020	0.09	0.18	0.36	—	—	—	—	1040	2080
	14010	0.28	—	—	—	—	—	—	690	1380
	14015	0.10	0.21	0.41	—	—	—	—	1350	2700
	T3320	0.07	0.14	0.27	0.41	—	—	—	1360	2720
72	16015	0.34	—	—	—	—	—	—	630	1260
	15015	0.27	—	—	—	—	—	—	780	1570
	T5020	0.18	0.35	—	—	—	—	—	720	1440
	14015	0.23	0.45	—	—	—	—	—	940	1880
	T3320	0.13	0.26	—	—	—	—	—	950	1900

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

- NOTES:
- The designer should not exceed the MAX RECOMMENDED LOAD at any given span. MAX RECOMMENDED LOAD represents a 2:1 factor of safety on ULTIMATE CAPACITY.
 - ULTIMATE CAPACITY represents a complete and total failure of the grating. Values are provided to illustrate the reserve strength of the grating at a given span and are NOT to be used for design. Functionality of grating is limited to MAX RECOMMENDED LOAD.
 - Walking loads, typically 50-65 PSF maximum are recommended for pedestrian traffic. Deflections for worker comfort are typically limited to the lesser of 3/8" or CLEAR SPAN divided by 125; for a firmer feel, limit deflection to the lesser of 1/4" or CLEAR SPAN divided by 200.
 - The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperatures only. Allowable loads for impact or dynamic conditions should be a maximum of ONE-HALF the values shown. Long term loads will result in added deflection due to creep in the material and will also require higher safety factors to ensure acceptable performance. For applications at elevated temperatures, consult factory. The designer is further referenced to the ASCE Structural Plastics Design Manual.
 - All gratings were tested in accordance with the proposed standard of the Fiberglass Grating Manufacturers Council of the American Composites Manufacturers Association (ACMA).

C Concentrated line load – lbs/ft of width
 ΔC Concentrated line load deflection (in.)



Industrial Concentrated Load Chart

INDUSTRIAL SERIES SAFE-T-SPAN CONCENTRATED LOAD TABLE - DEFLECTIONS IN INCHES

CLEAR SPAN (in)	STYLE	LOAD (psf)							MAXIMUM RECOMMENDED LOAD	ULTIMATE CAPACITY (psf)
		50	100	200	300	500	1,000	2,000		
12	16010	<.01	<.01	<.01	<.01	0.01	0.03	0.06	3570	7140
	16015	<.01	<.01	<.01	<.01	<.01	0.01	0.02	7620	15240
	15010	<.01	<.01	<.01	<.01	0.01	0.02	0.05	4460	8920
	15015	<.01	<.01	<.01	<.01	<.01	0.01	0.02	9520	19050
	T5020	<.01	<.01	<.01	<.01	<.01	0.01	0.02	7560	15120
	14010	<.01	<.01	<.01	<.01	0.01	0.02	0.04	5350	10700
	14015	<.01	<.01	<.01	<.01	<.01	0.01	0.02	11430	22860
	T3320	<.01	<.01	<.01	<.01	<.01	<.01	0.01	10080	20160
18	16010	<.01	0.01	0.02	0.03	0.04	0.09	0.17	3390	6780
	16015	<.01	<.01	<.01	0.01	0.02	0.03	0.06	7370	14740
	15010	<.01	0.01	0.02	0.02	0.03	0.07	0.14	4230	8470
	15015	<.01	<.01	<.01	0.01	0.02	0.02	0.05	9210	18420
	T5020	<.01	<.01	<.01	<.01	0.01	0.03	0.05	7560	15120
	14010	<.01	<.01	0.01	0.02	0.03	0.06	0.12	5080	10160
	14015	<.01	<.01	<.01	<.01	0.01	0.02	0.04	11060	22120
	T3320	<.01	<.01	<.01	<.01	0.01	0.02	0.04	10080	20160
24	16010	0.01	0.02	0.04	0.06	0.09	0.19	0.38	2840	5680
	16015	<.01	<.01	0.01	0.02	0.03	0.07	0.14	4880	9760
	15010	0.01	0.02	0.03	0.05	0.07	0.15	0.30	3550	7100
	15015	<.01	<.01	0.01	0.02	0.02	0.06	0.11	6100	12200
	T5020	<.01	<.01	<.01	0.01	0.02	0.04	0.08	5940	11880
	14010	<.01	0.01	0.03	0.04	0.06	0.13	0.25	4260	8520
	14015	<.01	<.01	<.01	0.01	0.02	0.05	0.10	7310	14620
	T3320	<.01	<.01	<.01	0.01	0.02	0.03	0.06	7920	15840
30	16010	0.02	0.03	0.07	0.10	0.17	0.35	—	2300	4600
	16015	<.01	0.01	0.03	0.04	0.06	0.13	0.26	4500	9000
	15010	0.02	0.02	0.06	0.08	0.14	0.28	—	2870	5750
	15015	<.01	0.01	0.02	0.03	0.05	0.10	0.21	5620	11250
	T5020	<.01	<.01	0.01	0.02	0.04	0.08	0.16	5200	10400
	14010	0.01	0.02	0.05	0.07	0.12	0.23	0.47	3450	6900
	14015	<.01	0.01	0.02	0.03	0.05	0.11	0.22	6750	13500
	T3320	<.01	<.01	0.01	0.02	0.03	0.06	0.12	6930	13860
36	16010	0.03	0.06	0.11	0.17	0.28	—	—	1970	3940
	16015	0.01	0.02	0.04	0.06	0.10	0.20	0.40	3750	7500
	15010	0.02	0.05	0.09	0.14	0.22	0.44	—	2460	4920
	15015	0.01	0.02	0.03	0.05	0.08	0.16	0.32	4680	9370
	T5020	<.01	0.01	0.02	0.04	0.06	0.12	0.25	4320	8640
	14010	0.02	0.04	0.07	0.11	0.18	0.37	—	2950	5900
	14015	<.01	0.01	0.03	0.04	0.07	0.13	0.26	2630	11260
	T3320	<.01	0.01	0.02	0.03	0.05	0.09	0.19	5760	11520
42	16010	0.04	0.08	0.17	0.25	0.42	—	—	1670	3340
	16015	0.02	0.03	0.06	0.10	0.16	0.32	—	3220	6440
	15010	0.03	0.06	0.14	0.20	0.34	—	—	2080	4170
	15015	0.02	0.02	0.05	0.08	0.13	0.26	—	4020	8050
	T5020	0.01	0.02	0.04	0.06	0.10	0.21	0.41	3710	7420
	14010	0.03	0.06	0.11	0.17	0.28	—	—	2500	5000
	14015	0.01	0.02	0.04	0.06	0.11	0.21	0.42	4820	9640
	T3320	0.01	0.02	0.03	0.05	0.08	0.16	0.31	4950	9900
48	16010	0.06	0.11	0.23	0.34	—	—	—	1440	2880
	16015	0.02	0.05	0.09	0.14	0.23	0.46	—	2810	5620
	15010	0.05	0.09	0.18	0.27	0.46	—	—	1800	3600
	15015	0.02	0.04	0.07	0.11	0.18	0.37	—	3510	7020
	T5020	0.01	0.03	0.06	0.09	0.15	0.29	—	3250	6500
	14010	0.04	0.08	0.15	0.23	0.38	—	—	2160	4320
	14015	0.02	0.03	0.06	0.09	0.15	0.30	—	4220	8440
	T3320	0.01	0.02	0.04	0.07	0.11	0.22	0.44	4330	8660
54	16010	0.09	0.18	0.36	—	—	—	—	1280	2560
	16015	0.03	0.07	0.14	0.21	0.35	—	—	2500	5000
	15010	0.07	0.14	0.29	0.43	—	—	—	1600	3200
	15015	0.02	0.06	0.11	0.17	0.28	—	—	3120	6250
	T5020	0.02	0.04	0.08	0.13	0.21	0.42	—	2890	5780
	14010	0.06	0.12	0.24	0.36	—	—	—	1920	3840
	14015	0.03	0.05	0.09	0.14	0.23	0.46	—	3750	7500
	T3320	0.02	0.03	0.06	0.10	0.16	0.32	—	3780	7560
60	16010	0.13	0.27	—	—	—	—	—	1150	2300
	16015	0.05	0.10	0.20	0.30	0.49	—	—	2250	4500
	15010	0.10	0.22	0.43	—	—	—	—	1430	2870
	15015	0.04	0.08	0.16	0.24	0.39	—	—	2810	5620
	T5020	0.03	0.06	0.12	0.17	0.29	—	—	2600	5200
	14010	0.09	0.18	0.36	—	—	—	—	1730	3460
	14015	0.04	0.07	0.13	0.20	0.33	—	—	3380	6760
	T3320	0.02	0.04	0.09	0.13	0.22	0.44	—	3400	6800
72	16010	0.26	—	—	—	—	—	—	960	1920
	16015	0.09	0.18	0.36	—	—	—	—	1880	3760
	15010	0.21	0.41	—	—	—	—	—	1200	2400
	15015	0.07	0.14	0.29	0.43	—	—	—	2350	4700
	T5020	0.05	0.09	0.19	0.28	0.47	—	—	2170	4340
	14010	0.17	0.34	—	—	—	—	—	1440	2880
	14015	0.06	0.12	0.24	0.36	—	—	—	2810	5620
	T3320	0.04	0.07	0.14	0.21	0.35	—	—	2830	5660

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

- NOTES:
- The designer should not exceed the MAX RECOMMENDED LOAD at any given span. MAX RECOMMENDED LOAD represents a 2:1 factor of safety on ULTIMATE CAPACITY.
 - ULTIMATE CAPACITY represents a complete and total failure of the grating. Values are provided to illustrate the reserve strength of the grating at a given span and are NOT to be used for design. Functionality of grating is limited to MAX RECOMMENDED LOAD.
 - Walking loads, typically 50-65 PSF maximum are recommended for pedestrian traffic. Deflections for worker comfort are typically limited to the lesser of 3/8" or CLEAR SPAN divided by 125; for a firmer feel, limit deflection to the lesser of 1/4" or CLEAR SPAN divided by 200.
 - The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperatures only. Allowable loads for impact or dynamic conditions should be a maximum of ONE-HALF the values shown. Long term loads will result in added deflection due to creep in the material and will also require higher safety factors to ensure acceptable performance. For applications at elevated temperatures, consult factory. The designer is further referred to the ASCE Structural Plastics Design Manual.
 - All gratings were tested in accordance with the proposed standard of the Fiberglass Grating Manufacturers Council of the American Composites Manufacturers Association (ACMA).

Safe-T-Span[®] Pedestrian Grating

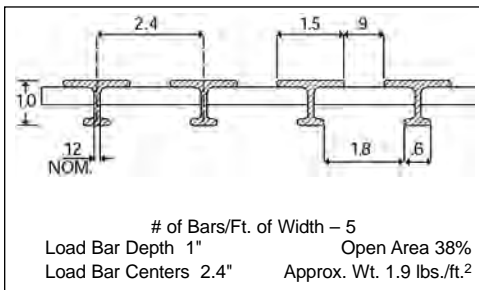
Designed specifically for pedestrian walkways, Fibergrate's Safe-T-Span[®] pultruded pedestrian grating is ideal for any application where a slip-resistant, corrosion-resistant, durable, lightweight material is required. Safe-T-Span pedestrian pultruded grating is available in 1" and 1-1/2" depths and in several configurations and panel sizes. 1" deep Safe-T-Span pedestrian grating is designed for access areas and walkways where pedestrian traffic is the heaviest load. 1-1/2" Safe-T-Span pedestrian grating is approximately three times stiffer than the 1" deep version and is used for applications where wider spans (up to 72") or lower deflection criteria are required.



Safe-T-Span pultruded pedestrian grating was chosen for this walkway bridge for swimmers at South Cape Beach State Park near the Cape Cod region of Massachusetts.

Details *Refer to chart on Page 4 for Grating Selection*

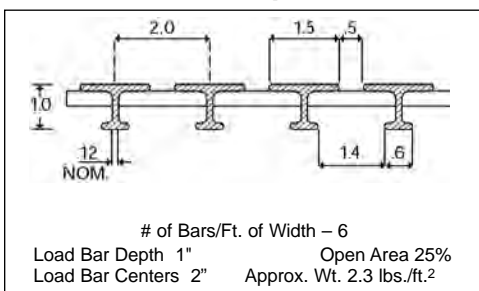
1" Deep, T3810



Engineering Properties per FT of Width

A=1.76 IN² I=.23 IN⁴ S-top=.65 IN³ S-bot=.35 IN³
 Average EI=1,120,000 LB-IN² (SPAN > 24")

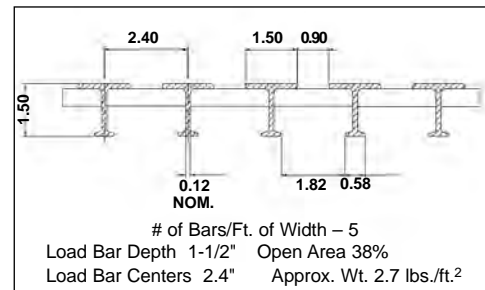
1" Deep, T2510 ADA Compliant



Engineering Properties per FT of Width

A=2.11 IN² I=.27 IN⁴ S-top=.79 IN³ S-bot=.42 IN³
 Average EI=1,340,000 LB-IN² (SPAN > 24")

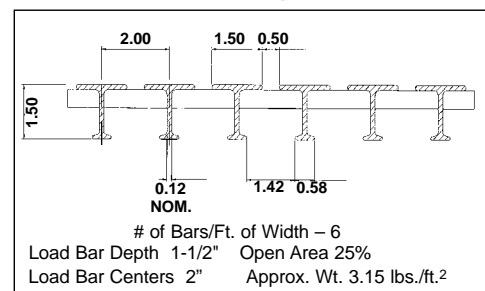
1-1/2" Deep, T3815



Engineering Properties per FT of Width

A=2.28 IN² I=.66 IN⁴ S-top=1.23 IN³ S-bot=.69 IN³
 Average EI=3,440,000 LB-IN² (SPAN > 24")

1-1/2" Deep, T2515 ADA Compliant



Engineering Properties per FT of Width

A=2.73 IN² I=.80 IN⁴ S-top=1.47 IN³ S-bot=.83 IN³
 Average EI=4,130,000 LB-IN² (SPAN > 24")

Aqua Grate® Pedestrian Grating

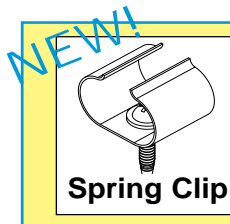


Aqua Grate® T1210 and T1215 pultruded pedestrian grating is specifically engineered to withstand the corrosive conditions associated with recreational and general marine applications and to meet ADA guidelines. With its nominal 1/4" space between the 1-1/2" wide bearing bars, Aqua Grate offers optimum comfort and safety for bathers walking with bare feet — a must in high traffic public recreational areas. Aqua Grate's unique combination of corrosion resistance and light weight provides easy, inexpensive installation in such facilities as swimming pools, water parks, marinas and piers.



Boat Dock on Horseshoe Lake in Haliburton, Ontario. Safe-T-Span Pultruded Aqua Grate Pedestrian Grating

Aqua Grate is available in a variety of lengths and widths, making it useful for a number of waterfront and recreational applications. Aqua Grate's sugargrit surface provides a high level of slip resistance, yet at the same time offers a comfortable barefoot walking surface. Protection against long-term UV exposure is provided by a synthetic surfacing veil and UV inhibitors in the resin formulation. Whether subjected to chlorinated water in public and private pools or salt water environments found in marine and waterfront applications, Aqua Grate will offer years of low-cost, low maintenance service.



The T12 Spring Clip is designed for specialty applications where grating needs to be removed without removing the hardware. The grating is held securely in place below the surface, but can be released with a firm upward force. For the T12 Pultruded Grating Series.

Applications

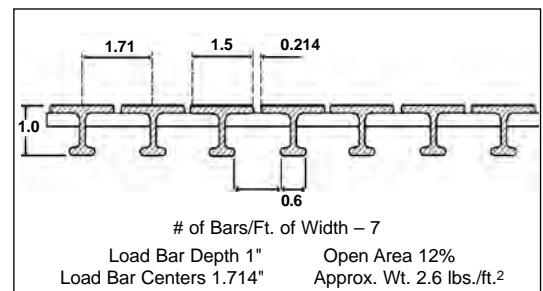


- Public and Private Swimming Pools
- Water Parks
- Theme Parks
- Boat Docks and Piers
- Marinas
- Zoos and Aquariums

Details

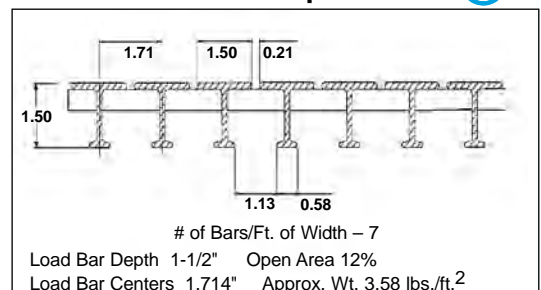
Refer to chart on Page 4 for Grating Selection

1" Deep, T1210 ADA Compliant



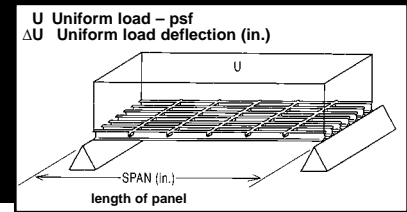
Engineering Properties per FT of Width
A=2.46 IN² I=0.32 IN⁴ S-top=0.94 IN³ S-bot=0.49 IN³
Average EI = 1,568,000 LB-IN² (SPAN ≥ 24")

1-1/2" Deep, T1215 ADA Compliant



Engineering Properties per FT of Width
A=3.19 IN² I=0.93 IN⁴ S-top=1.72 IN³ S-bot=0.97 IN³
Average EI=4,827,000 LB-IN² (SPAN > 24")

Pedestrian Uniform Load Chart



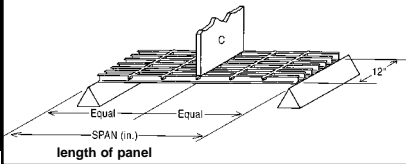
PEDESTRIAN SERIES SAFE-T-SPAN UNIFORM LOAD TABLE - DEFLECTIONS IN INCHES

CLEAR SPAN (in)	STYLE	LOAD (psf)							MAXIMUM RECOMMENDED LOAD	ULTIMATE CAPACITY (psf)
		50	100	200	300	500	1,000	2,000		
12	T3810	<.01	<.01	<.01	<.01	0.01	0.03	0.06	2730	5460
	T3815	<.01	<.01	<.01	<.01	0.01	0.01	0.03	4220	8440
	T2510	<.01	<.01	<.01	<.01	0.01	0.02	0.05	3280	6560
	T2515	<.01	<.01	<.01	<.01	0.01	0.01	0.02	5060	10120
	T1210	<.01	<.01	<.01	<.01	0.01	0.02	0.04	4590	9180
T1215	<.01	<.01	<.01	<.01	0.01	0.01	0.02	5060	10120	
18	T3810	<.01	0.01	0.02	0.04	0.06	0.12	—	1820	3640
	T3815	<.01	<.01	0.01	0.01	0.02	0.05	0.10	2810	5620
	T2510	<.01	0.01	0.02	0.03	0.05	0.10	0.20	2180	4360
	T2515	<.01	<.01	0.01	0.01	0.02	0.04	0.08	3380	6760
	T1210	<.01	<.01	0.01	0.03	0.04	0.09	0.18	3060	6120
T1215	<.01	<.01	0.01	0.01	0.02	0.04	0.07	3940	7880	
24	T3810	0.02	0.03	0.07	0.10	0.17	0.34	—	1370	2740
	T3815	0.01	0.01	0.02	0.04	0.06	0.12	0.24	2110	4220
	T2510	0.01	0.03	0.06	0.08	0.14	0.28	—	1640	3280
	T2515	<.01	0.01	0.02	0.03	0.05	0.10	0.20	2530	5060
	T1210	0.01	0.02	0.05	0.07	0.12	0.24	0.48	2290	4580
T1215	<.01	0.01	0.02	0.03	0.04	0.09	0.17	2950	5900	
30	T3810	0.04	0.08	0.16	0.24	0.40	—	—	1090	2180
	T3815	0.01	0.03	0.06	0.08	0.14	0.28	—	1690	3380
	T2510	0.03	0.07	0.13	0.20	0.33	—	—	1310	2620
	T2515	0.01	0.02	0.05	0.07	0.12	0.23	0.47	2030	4060
	T1210	0.03	0.06	0.11	0.17	0.29	—	—	1840	3680
T1215	0.01	0.02	0.04	0.06	0.10	0.20	0.40	2360	4720	
36	T3810	0.08	0.16	0.32	0.49	—	—	—	860	1720
	T3815	0.03	0.06	0.11	0.17	0.28	—	—	1410	2820
	T2510	0.07	0.14	0.27	0.41	—	—	—	1040	2080
	T2515	0.02	0.05	0.09	0.14	0.23	0.46	—	1690	3380
	T1210	0.06	0.11	0.23	0.35	—	—	—	1450	2900
T1215	0.02	0.04	0.08	0.12	0.20	0.40	—	1970	3940	
42	T3810	0.15	0.30	—	—	—	—	—	630	1260
	T3815	0.05	0.10	0.20	0.30	—	—	—	1100	2200
	T2510	0.12	0.25	0.50	—	—	—	—	760	1520
	T2515	0.04	0.08	0.17	0.25	0.41	—	—	1320	2640
	T1210	0.11	0.21	0.43	—	—	—	—	1060	2120
T1215	0.04	0.07	0.14	0.21	0.36	—	—	1540	3080	
48	T3810	0.25	0.50	—	—	—	—	—	490	980
	T3815	0.08	0.17	0.33	—	—	—	—	840	1680
	T2510	0.21	0.42	—	—	—	—	—	580	1160
	T2515	0.07	0.14	0.28	0.42	—	—	—	1010	2020
	T1210	0.18	0.36	—	—	—	—	—	820	1640
T1215	0.06	0.12	0.24	0.36	—	—	—	1180	2360	
54	T3815	0.13	0.26	—	—	—	—	—	670	1340
	T2515	0.11	0.22	0.44	—	—	—	—	800	1600
	T1215	0.09	0.19	0.38	—	—	—	—	930	1860
60	T3815	0.20	0.40	—	—	—	—	—	540	1080
	T2515	0.16	0.33	—	—	—	—	—	650	1300
	T1215	0.14	0.28	—	—	—	—	—	760	1520
66	T3815	0.29	—	—	—	—	—	—	450	900
	T2515	0.24	0.48	—	—	—	—	—	540	1080
	T1215	0.21	0.41	—	—	—	—	—	620	1240
72	T3815	0.41	—	—	—	—	—	—	370	740
	T2515	0.34	—	—	—	—	—	—	450	900
	T1215	0.29	—	—	—	—	—	—	520	1040

IMPORTANT: Installation should provide for fully supported abutments of grating panels. Otherwise higher deflection values may be experienced, and tripping hazards may occur. Stub bars should not be less than 1" in clip attachment areas. Safe-T-Span pedestrian grating load bars at platform edges should be full supported.

- NOTES:**
- The designer should not exceed the MAX RECOMMENDED LOAD at any given span. MAX RECOMMENDED LOAD represents a 2:1 factor of safety on ULTIMATE CAPACITY.
 - ULTIMATE CAPACITY represents a complete and total failure of the grating. Values are provided to illustrate the reserve strength of the grating at a given span and are NOT to be used for design. Functionality of grating is limited to MAX RECOMMENDED LOAD.
 - Walking loads, typically 50-65 PSF maximum are recommended for pedestrian traffic. Deflections for worker comfort are typically limited to the lesser of 3/8" or CLEAR SPAN divided by 125; for a firmer feel, limit deflection to the lesser of 1/4" or CLEAR SPAN divided by 200.
 - The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperatures only. Allowable loads for impact or dynamic conditions should be a maximum of ONE-HALF the values shown. Long term loads will result in added deflection due to creep in the material and will also require higher safety factors to ensure acceptable performance. For applications at elevated temperatures, consult factory. The designer is further referenced to the ASCE Structural Plastics Design Manual.
 - All gratings were tested in accordance with the proposed standard of the Fiberglass Grating Manufacturers Council of the American Composites Manufacturers Association (ACMA).

C Concentrated line load – lbs/ft of width
 ΔC Concentrated line load deflection (in.)



Pedestrian Concentrated Load Chart

PEDESTRIAN SERIES SAFE-T-SPAN CONCENTRATED LOAD TABLE - DEFLECTIONS IN INCHES

CLEAR SPAN (in)	STYLE	LOAD (psf)							MAXIMUM RECOMMENDED LOAD	ULTIMATE CAPACITY (psf)
		50	100	200	300	500	1,000	2,000		
12	T3810	<.01	<.01	<.01	0.01	0.02	0.05	0.09	2730	5460
	T3815	<.01	<.01	<.01	0.01	0.01	0.02	0.04	4220	8440
	T2510	<.01	<.01	<.01	0.01	0.02	0.04	0.08	3280	6560
	T2515	<.01	<.01	<.01	0.01	0.01	0.02	0.04	5060	10120
	T1210	<.01	<.01	<.01	<.01	0.01	0.04	0.06	4590	9180
T1215	<.01	<.01	<.01	<.01	0.01	0.02	0.03	5900	11800	
18	T3810	<.01	0.01	0.03	0.04	0.07	0.13	0.26	2590	5180
	T3815	<.01	0.01	0.01	0.02	0.03	0.05	0.10	4220	8440
	T2510	<.01	0.01	0.02	0.03	0.05	0.11	0.22	3100	6200
	T2515	<.01	<.01	0.01	0.01	0.02	0.04	0.09	5060	10120
	T1210	<.01	0.01	0.02	0.03	0.05	0.09	0.19	4350	8700
T1215	<.01	<.01	0.01	0.01	0.02	0.04	0.07	5900	11800	
24	T3810	0.01	0.03	0.05	0.08	0.13	0.27	—	1940	3880
	T3815	<.01	0.01	0.02	0.03	0.05	0.09	0.19	3370	6740
	T2510	0.01	0.02	0.04	0.07	0.11	0.22	0.45	2330	4660
	T2515	<.01	0.01	0.02	0.02	0.04	0.08	0.16	4040	8080
	T1210	0.01	0.02	0.04	0.06	0.09	0.19	0.38	3260	6520
T1215	<.01	<.01	0.01	0.02	0.03	0.07	0.14	4720	9440	
30	T3810	0.03	0.05	0.10	0.15	0.26	—	—	1550	3100
	T3815	0.01	0.03	0.04	0.05	0.09	0.18	0.36	2700	5400
	T2510	0.02	0.04	0.09	0.13	0.21	0.43	—	1860	3720
	T2515	0.01	0.01	0.03	0.04	0.07	0.15	0.30	3230	6460
	T1210	0.02	0.04	0.07	0.11	0.19	0.36	—	2610	5220
T1215	0.01	0.01	0.03	0.04	0.06	0.13	0.25	3770	7540	
36	T3810	0.04	0.09	0.17	0.26	0.43	—	—	1290	2580
	T3815	0.01	0.03	0.06	0.09	0.15	0.30	—	2250	4500
	T2510	0.04	0.07	0.14	0.22	0.36	—	—	1550	3100
	T2515	0.01	0.02	0.05	0.07	0.12	0.25	0.49	2700	5400
	T1210	0.03	0.06	0.12	0.19	0.31	—	—	2170	4340
T1215	0.01	0.02	0.04	0.06	0.11	0.21	0.42	31470	6280	
42	T3810	0.07	0.14	0.27	0.41	—	—	—	1110	2220
	T3815	0.02	0.09	0.09	0.14	0.23	0.45	—	1930	3860
	T2510	0.06	0.11	0.23	0.34	—	—	—	1330	2660
	T2515	0.02	0.04	0.08	0.11	0.19	0.38	—	2310	4620
	T1210	0.05	0.10	0.19	0.29	0.49	—	—	1860	3720
T1215	0.02	0.03	0.06	0.10	0.16	0.32	—	2700	5400	
48	T3810	0.10	0.20	0.40	—	—	—	—	970	1940
	T3815	0.03	0.07	0.13	0.20	0.33	—	—	1680	3360
	T2510	0.08	0.17	0.33	0.50	—	—	—	1160	2320
	T2515	0.03	0.06	0.11	0.17	0.28	—	—	2020	4040
	T1210	0.07	0.14	0.29	0.43	—	—	—	1630	3260
T1215	0.02	0.05	0.10	0.14	0.24	0.48	—	2360	4720	
54	T3815	0.05	0.09	0.19	0.28	0.47	—	—	1500	3000
	T2515	0.04	0.08	0.16	0.23	0.39	—	—	1800	3600
	T1215	0.03	0.07	0.13	0.20	0.33	—	—	2100	4200
60	T3815	0.06	0.13	0.25	0.38	—	—	—	1350	2700
	T2515	0.05	0.10	0.21	0.31	—	—	—	1620	3240
	T1215	0.04	0.09	0.18	0.27	0.45	—	—	1890	3780
66	T3815	0.08	0.17	0.33	—	—	—	—	1230	2460
	T2515	0.07	0.14	0.28	0.42	—	—	—	1470	2940
	T1215	0.06	0.12	0.24	0.36	—	—	—	1720	3440
72	T3815	0.11	0.22	0.43	—	—	—	—	1120	2240
	T2515	0.09	0.18	0.36	—	—	—	—	1350	2700
	T1215	0.08	0.15	0.31	0.46	—	—	—	1500	3140

IMPORTANT: Installation should provide for fully supported abutments of grating panels. Otherwise higher deflection values may be experienced, and tripping hazards may occur. Slab bars should not be less than 1" in clip attachment areas. Safe-T-Span pedestrian grating load bars at platform edges should be full supported.

NOTES:

- The designer should not exceed the MAX RECOMMENDED LOAD at any given span. MAX RECOMMENDED LOAD represents a 2:1 factor of safety on ULTIMATE CAPACITY.
- ULTIMATE CAPACITY represents a complete and total failure of the grating. Values are provided to illustrate the reserve strength of the grating at a given span and are NOT to be used for design. Functionality of grating is limited to MAX RECOMMENDED LOAD.
- Walking loads, typically 50-65 PSF maximum are recommended for pedestrian traffic. Deflections for worker comfort are typically limited to the lesser of 3/8" or CLEAR SPAN divided by 125; for a firmer feel, limit deflection to the lesser of 1/4" or CLEAR SPAN divided by 200.
- The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperatures only. Allowable loads for impact or dynamic conditions should be a maximum of ONE-HALF the values shown. Long term loads will result in added deflection due to creep in the material and will also require higher safety factors to ensure acceptable performance. For applications at elevated temperatures, consult factory. The designer is further referenced to the ASCE Structural Plastics Design Manual.
- All gratings were tested in accordance with the proposed standard of the Fiberglass Grating Manufacturers Council of the American Composites Manufacturers Association (ACMA).

Safe-T-Span® Industrial Stair Treads



Safe-T-Span® Pultruded Industrial Stair Treads

Slip-resistant and non-conductive Safe-T-Span pultruded stair treads offer the same level of safety,

strength and corrosion resistance of other Fibergrate pultruded fiberglass products. Designed for use in

applications where wider support spans are required, Safe-T-Span pultruded stair treads are available in 1", 1-1/2" and 2" depths.

(Not available in pedestrian series.)

Safe-T-Span® Pultruded Industrial Stair Treads

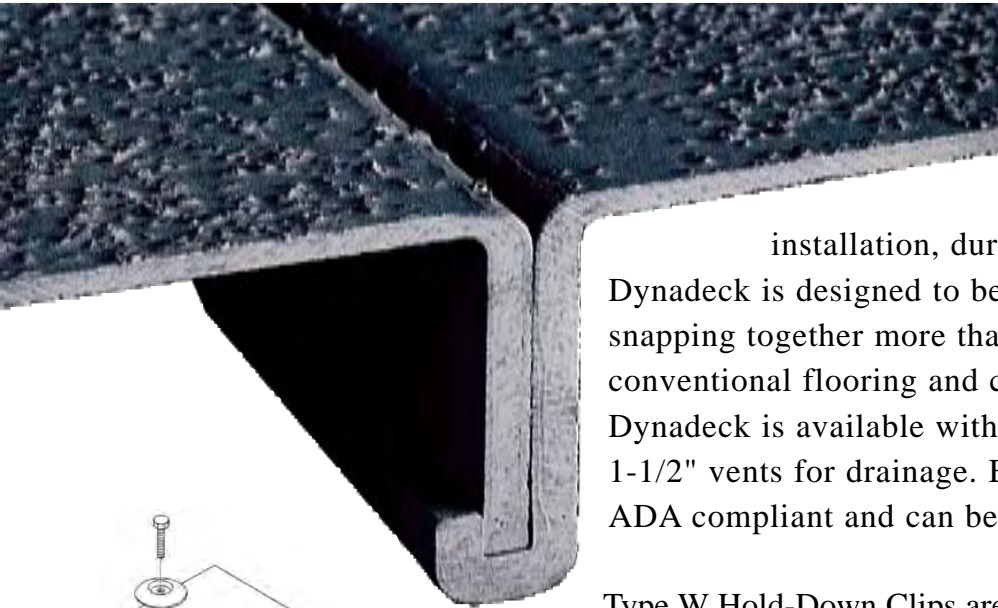
Load/Deflection Information

TREAD TYPE	Load (lbs.)	SPAN (in.)	18	24	30	36	42	48
		SPAN/150	.12	.16	.20	.24	.28	.32
1" Deep, I6010 (60%)	250		.03	.08	.14	.22	.34	.46
	500		.07	.15	.28	.44	.68	.92
1-1/2" Deep, I6015 (60% Open)	250		.01	.02	.04	.06	.09	.13
	500		.02	.04	.08	.11	.18	.26
2" Deep T5020 (50% Open)	250		.01	.02	.03	.04	.06	.09
	500		.02	.04	.06	.09	.12	.18
1" Deep I4010 (40% Open)	250		.02	.05	.10	.16	.24	.33
	500		.05	.11	.20	.32	.49	.65
1-1/2" Deep, I4015 (40% Open)	250		.01	.01	.03	.04	.06	.09
	500		.02	.03	.05	.07	.12	.17
2" Deep, T3320 (33% Open)	250		.01	.01	.02	.03	.05	.07
	500		.02	.03	.04	.06	.09	.14

NOTES:

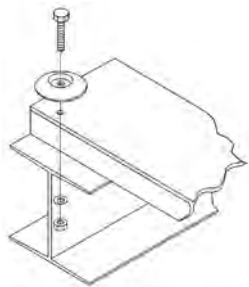
1. It is suggested that stair tread deflection be limited to SPAN/150. Deflections based on this ratio are provided at the top of the table.
2. Deflection in the body of the table are for concentrated loads of both 250 lbs. and 500 lbs. A concentrated load is applied at the center of the tread, over a width of 4" and a length of 6", starting at the nosing edge to simulate the landing of a foot.
3. Deflections are not appreciably different due to stair tread depth. Actual depth will vary depending on stair tread configuration.

Dynadeck® Interlocking Flooring



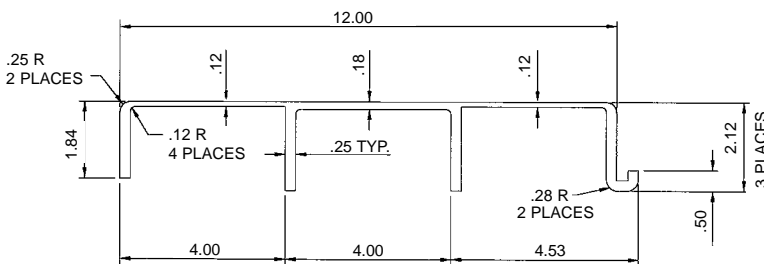
Used in a wide range of industrial and commercial applications, Dynadeck® Interlocking Pultruded Flooring panels provide a unique combination of easy installation, durability and low-maintenance.

Dynadeck is designed to be easily installed with sections snapping together more than three times faster than conventional flooring and can be disassembled for transporting. Dynadeck is available with a smooth top or with 1/2" wide x 1-1/2" vents for drainage. Both the smooth and vented tops are ADA compliant and can be gritted for slip-resistant surfaces.



Type W Hold-Down Clips are recommended to secure Dynadeck panels to structural supports in order to eliminate potential damage to the panel.

Standard Smooth Solid Details



Load & Deflection Information

Span	U/C	100 lb	200 lb	300 lb	500 lb	1000 lb	2000 lb
2 ft	ΔU	.010	.018	.029	.049	.097	.194
	ΔC	.008	.015	.024	.039	.079	.158
3 ft	ΔU	.035	.070	.105	.175	.350	—
	ΔC	.019	.038	.057	.095	.190	.380
4 ft	ΔU	.111	.222	.333	.555	1.110	—
	ΔC	.045	.090	.135	.225	.450	.900
5 ft	ΔU	.270	.540	.810	1.350	—	—
	ΔC	.068	.175	.263	.438	.876	—
6 ft	ΔU	.562	1.124	1.686	—	—	—
	ΔC	.151	.302	.453	.755	1.510	—

U – Uniform Load (lbs./ft.) C – Concentrated Load (lbs./ft at center of span)
 ΔU – Uniform Load Deflection (in.) ΔC – Concentrated Load Deflection (in.)

Dynadeck® Surfaces

- Smooth Solid
- Optional Gritted Solid
- Smooth Vented
- Optional Gritted Vented



Dynadeck® Resins

- ISO - Olive Green, Non-fire Retardant
- ISOFR - Dark Gray (Standard), Flame Spread of 25 or Less
- VEFR - Beige, Flame Spread of 25 or Less

Applications

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

Load Information/Grating Selection

Load/Deflection Tables Information

Fibergrate load and deflection tables are designed to be user friendly by separating uniform load information from concentrated load information and by listing all its pultruded Safe-T-Span gratings in the column directly to the right of the span dimensions. These changes allow designers to quickly and accurately denote the grating best suited for the intended purpose.

Ultimate Capacity

Fibergrate has tested its pultruded grating product line to its ultimate capacity. **ULTIMATE CAPACITY** represents a complete and total failure of the grating and is presented to illustrate the reserve strength of the grating at a given span. Ultimate capacities are not to be used for design: functionality of the grating is limited to Maximum Recommended Load. The designer should not exceed the **MAX RECOMMENDED LOAD** at any given span. **MAX RECOMMENDED LOAD** represents a 2:1 factor of safety on **ULTIMATE CAPACITY**.

Loads

Walking loads, typically 50-65 PSF maximum, are recommended for pedestrian traffic. Deflections for personnel comfort are typically limited to the lesser of 3/8" or CLEAR SPAN divided by 125. For a firmer feel, limit deflection to the lesser of 1/4" or CLEAR SPAN divided by 200. The allowable loads in this table are for **STATIC LOAD CONDITIONS** at ambient temperatures only. Allowable loads for impact or dynamic conditions should be a minimum of **ONE-HALF** the values shown. Long-term loads will result in added deflection due to creep in the material and will also require higher safety factors to ensure acceptable performance. For applications at elevated temperatures, consult Fibergrate. The designer is further referenced to ASCE Structural Plastics Design Manual.

Grating Selection

Since Fibergrate also offers molded and Moltruded® fiberglass gratings, the following table is included as a guide to help in choosing the best grating for a particular application.

GRATING SELECTION CHART	MOLDED GRATING		PULTRUDED GRATING	MOLTRUDED®
	1" Rectangular Mesh	1", 1-1/2" & 2" Square Mesh		RIGIDEX® II
Corrosion Resistance	HR	HR	R	R
Strength/Stiffness (longest span)	R	R	HR	HR
Impact Resistance	R	HR	A	R
Open Area (for drainage, aeration, light penetration)	HR	HR	A	HR
Single-Direction Span	R	A	HR	HR
Bidirectional Span	N	HR	N	N
Ease of Layout and Installation	A	HR	A	A
Lightweight in Comparison to Metals	HR	HR	HR	R
Custom Panel Sizes Available	A	R	R	N

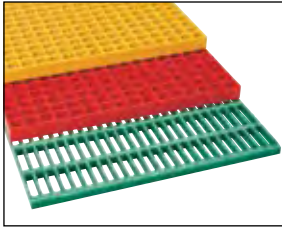
HR = Highly Recommended R = Recommended A = Acceptable N = Not Recommended

Chemical Resistance Guide

Chemical Environment	% Concentration	Temp F	Molded										Pultruded	
			Fibergrate®							Chemgrate®			Safe-T-Span®	
			Vi-Corr®	Super Vi-Corr®	IFR/Rigidex II	FGI	Corvex®	XFR	FS-25	CP-84	VE-25	VEFR	ISOFR	
Acetic Acid	50	MAX	C	C	C	C	C	C	C	C	C	C	C	C
Acetone	100	75	S	S	I	I	T	I	I	I	I	S	I	N
Alcohols	100	120	C	C	I	I	I	I	S	I	I	C	I	I
Alum	ALL	MAX	C	C	C	C	C	C	C	C	C	C	C	C
Aluminum Chloride	ALL	MAX	C	C	C	C	C	C	C	C	C	C	C	C
Aluminum Fluoride	20	75	C	C	I	I	I	I	I	I	I	C	I	I
Ammonium Hydroxide	30	75	C	C	N	N	N	N	N	N	I	C	I	N
Ammonium Salts-Neutral	ALL	120	C	C	C	C	S	S	I	I	I	S	C	S
Ammonium Salts-Aggressive	ALL	75	S	C	I	I	T	I	I	I	I	S	T	N
Aromatic Solvents	ALL	75	T	T	N	N	N	N	N	N	N	T	N	N
Barium Salts	ALL	MAX	C	C	C	C	C	C	C	C	C	C	C	C
Benzene	100	140	I	S	I	I	N	I	I	I	I	I	I	N
Black Liquor (Pulp Mill)	ALL	MAX	C	C	I	I	N	I	I	I	I	C	I	N
Bleach Liquor (Pulp Mill)	ALL	MAX	C	C	I	I	N	N	I	I	I	C	I	N
Calcium Hydroxide	25	MAX	C	C	S	S	I	I	S	S	I	C	S	I
Calcium Hypochlorite	ALL	MAX	C	C	I	I	N	I	I	I	I	C	I	N
Calcium Salts	ALL	MAX	C	C	C	C	C	C	C	C	C	C	C	C
Carbon Tetrachloride	100	75	C	C	I	I	N	S	N	I	C	C	S	N
Chlorinated Hydrocarbons	100	75	T	T	T	T	T	N	N	N	T	T	T	T
Chlorine Dioxide	SAT	140	C	C	N	N	N	N	N	N	T	I	S	N
Chlorine Water	SAT	120	C	C	I	I	T	I	I	I	I	C	I	N
Chlorine, Wet	SAT	MAX	C	C	N	N	N	N	N	N	N	C	N	N
Chlorobenzene	100	75	S	S	N	N	N	N	N	N	N	S	N	N
Chlorobenzene	ALL	Up to 100	C	C	N	N	N	N	N	N	N	C	N	N
Chloroform	100	75	N	N	N	N	N	N	N	N	N	N	N	N
Chromic Acid	50	140	S	S	S	S	N	N	I	S	S	S	I	N
Citric Acid	ALL	MAX	C	C	C	C	C	C	C	C	C	C	C	C
Copper Cyanide Plating	ALL	125	C	C	S	S	I	N	S	S	C	C	S	I
Copper Salts	ALL	MAX	C	C	C	C	C	C	C	C	C	C	C	C
Crude Oil (Sweet or Sour)	ALL	MAX	C	C	C	C	C	C	C	C	C	C	C	C
Dichlorobenzene	100	75	T	S	N	N	N	N	N	N	N	T	N	N
Ethers		75	T	T	N	N	N	N	N	N	N	T	N	N
Ferric Chloride	100	MAX	C	C	C	C	C	C	C	I	C	C	C	C
Ferric Salts	ALL	MAX	C	C	C	C	C	C	C	C	C	C	C	C
Fluoride Salts+HCl	ALL	75	C	C	S	S	N	I	S	S	C	C	I	N
Fluosilicic Acid	10	75	C	C	S	S	S	S	S	S	S	C	S	I
Formaldehyde	37	150	C	C	I	I	I	I	I	I	I	C	S	I
Formic Acid	25	100	C	C	S	S	I	I	I	S	C	C	S	I
Fuel (Diesel, Jet, Gasoline)	ALL	100	C	C	C	C	C	C	C	C	C	C	C	C
Glycerine	100	MAX	C	C	C	C	C	C	C	C	C	C	C	C
Green Liquor (Pulp Mill)	ALL	MAX	C	C	N	N	N	N	N	I	C	C	I	N
Hydrobromic Acid	48	MAX	S	S	S	S	I	I	I	S	S	C	I	N
Hydrochloric Acid	10	MAX	C	C	S	S	S	C	S	S	C	C	S	S
Hydrochloric Acid	30	MAX	C	C	C	C	S	I	S	S	C	C	I	I
Hydrochloric Acid (concentrated)	ALL	Up to 180	I	C	N	N	N	N	N	N	I	N	N	N
Hydrocyanic Acid	ALL	MAX	C	C	I	I	I	I	I	I	I	C	S	I
Hydrofluoric Acid	20	75	C	C	N	N	N	N	N	N	N	C	N	N
Hydrogen Peroxide	30	75	C	C	N	N	N	I	N	N	N	C	S	N
Lactic Acid	100	MAX	C	C	C	C	C	C	C	C	C	C	C	C
Lime Slurry	SAT	MAX	C	C	C	C	C	C	C	C	C	C	C	C
Lithium Chloride	SAT	MAX	N	C	N	N	N	N	N	N	N	N	N	N
Lithium Salts	ALL	MAX	C	C	C	C	C	C	C	C	C	C	T	T
Magnesium Salts	ALL	MAX	C	C	C	C	C	C	C	C	C	C	C	C
Maleic Acid	100	MAX	C	C	S	S	I	C	I	S	C	C	S	I
Mercury Chloride	100	MAX	C	C	C	C	C	C	C	S	C	C	C	C
Nickel Salts	ALL	MAX	C	C	C	C	C	C	C	C	C	C	C	C
Nitric Acid	20	120	C	C	S	S	I	I	S	S	C	C	I	I
Nitric Acid	35	100	C	C	N	N	N	I	N	N	I	C	I	N
Nitric Acid	40	Ambient	I	C	N	N	N	N	N	N	N	I	N	N
Nitric, Hydrofluoric	20:2	75	I	C	N	N	N	N	N	N	N	I	N	N
Nitrous Acid	10	75	C	C	C	C	C	C	I	C	C	C	C	C
Ozone for Sewage Treatment		100	C	C	C	C	C	C	C	C	C	C	C	C
Perchloroethylene	100	75	S	C	N	N	N	I	N	N	N	C	I	N
Phenol	10	75	C	C	N	N	N	N	N	N	N	C	I	N
Phenol	88	Ambient	S	C	N	N	N	N	N	N	N	S	N	N
Phosphoric Acid	85	MAX	C	C	C	C	S	C	I	C	C	C	C	S
Phosphoric Acid, Super	115	MAX	C	C	I	I	T	S	N	I	C	C	S	N
Potassium Hydroxide	10	120	C	C	I	I	N	N	I	I	C	C	S	N
Potassium Salts	ALL	MAX	C	C	C	C	C	C	C	C	C	C	C	C
Silver Nitrate	100	MAX	C	C	C	C	C	C	I	C	C	C	C	C
Sodium Cyanide	ALL	75	C	C	I	I	I	I	I	I	I	C	S	I
Sodium Hydroxide	50	MAX	C	C	I	I	N	N	I	I	I	C	I	N
Sodium Hydroxide	10	MAX	C	C	N	N	N	N	N	N	N	C	N	N
Sodium Hypochlorite (Stable)	10	100	C	C	S	S	I	S	S	S	C	C	S	I
Sodium Salts-Neutral	ALL	MAX	C	C	C	C	C	C	C	C	C	C	C	C
Sodium Salts-Aggressive	ALL	75	S	C	I	I	T	I	N	I	S	T	N	N
Sulfur Dioxide	SAT	MAX	C	C	S	S	S	S	S	S	C	C	S	S
Sulfuric Acid	25	MAX	C	C	S	S	I	S	S	S	C	C	S	I
Sulfuric Acid	50	MAX	C	C	S	S	N	S	I	S	C	C	S	N
Sulfuric Acid	75	100	C	C	I	I	N	I	N	I	C	C	I	N
Toluene	100	120	S	C	I	I	N	N	I	I	S	I	I	N
Trichloroethane1,1,1	ALL	75	S	C	I	I	N	I	N	I	C	I	I	N
Trisodium Phosphate	50	MAX	C	C	I	I	I	I	I	I	I	C	I	N
Water (Fresh, Salt, Moderate D.I.)	100	MAX	C	C	C	C	C	C	C	C	C	C	C	C
Wet Chlorine/Hydrochloric Acid	10-20	Up to 350	S	C	N	N	N	N	N	N	S	N	N	N
White Liquor (Pulp Mill)	ALL	MAX	C	C	I	I	N	I	I	I	I	C	S	N
Zinc Chloride Plating	ALL	75	C	C	S	S	N	S	I	S	C	C	S	N
Zinc Salts	100	MAX	C	C	C	C	C	C	C	C	C	C	C	C

C - Continuous exposure of the grating to the Chemical Environment listed at the temperature listed.
 S - Frequent exposure of the grating to splashes and spills from the Chemical Environment listed with that environment at the temperature listed.
 I - Infrequent exposure of the grating to splashes and spills from the Chemical Environment listed with that environment at the temperature listed and the spill immediately cleaned up or washed from the grating.
 N - Not recommended for the concentrations and temperatures listed.
 T - Test
 Super ViCorr may require benzoyl peroxide-DMA cure system to increase service life.
 Consult Fibergrate for corrosion recommendations at concentrations, temperatures or chemicals not listed in this guide.
 MAX TEMP is 400° F for Super ViCorr; 180° for ViCorr and Pultruded VEFR; 150° for IFR, FGI, XFR and Pultruded ISOFR; 140° for Corvex.
 The information in this Corrosion Guide is correct to the best of Fibergrate's knowledge. It is based on extensive experience with fiberglass grating in corrosive applications. Because actual use conditions differ and mixtures of corrosives will occur in service, the end user must test for use under actual conditions. Fibergrate's responsibility for claims arising from breach of warranty, negligence or otherwise is limited to the purchase price of the material sold by Fibergrate. Test coupons are available upon specific request.

Fibergrate Products & Services



Fibergrate® Molded Grating

Fibergrate molded gratings are designed to provide the ultimate in reliable performance, even in the most demanding conditions. Fibergrate offers the widest selection in the market with more than ten resins including Chemgrate CP-84 and more than twenty grating configurations available in many panel sizes and surfaces.

RIGIDEX® Moltruded® Grating

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



Safe-T-Span® Pultruded Industrial and Pedestrian Gratings

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

Dynarail® Handrail

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

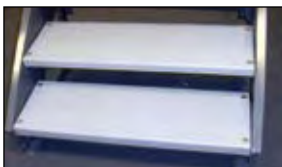
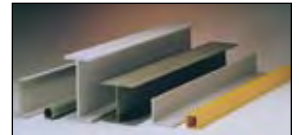


Dynarail® Safety Ladder System

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

Dynaform® Structural Shapes

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



Stair Solutions

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

Grating Pedestals

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



Fabrication Services

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