

DURADEK®

Pultruded Fiberglass Grating

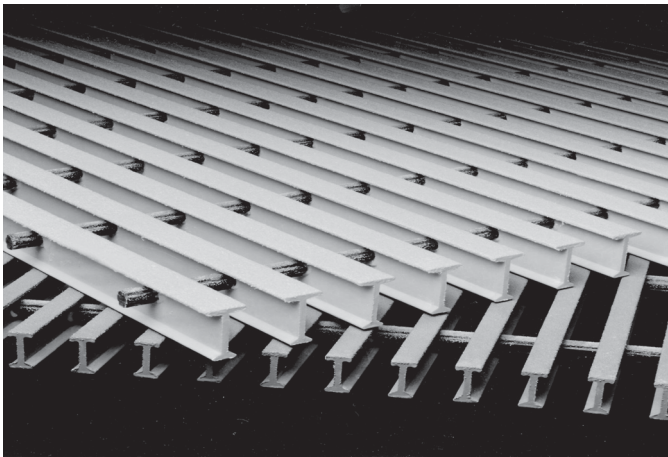


Features

DURADEK® Pultruded Fiberglass Grating is an ideal substitute for steel or aluminum gratings. Long life, inherent in fiberglass (often outlasts steel 20-to-1), makes DURADEK® a problem solving material where frequent replacement costs are unacceptable.

DURADEK® Pultruded Fiberglass Grating has these features:

- Corrosion Resistant
- Structurally Strong
- High Impact Strength
- Fire Retardant
- Lightweight
- Non-Conductive
- Resistant to Chipping and Cracking
- Aesthetically Pleasing Appearance
- Anti-Skid
- Rigid
- Low Maintenance
- Low Thermal Conductivity
- Non-Sparking & Non-Magnetic



Applications

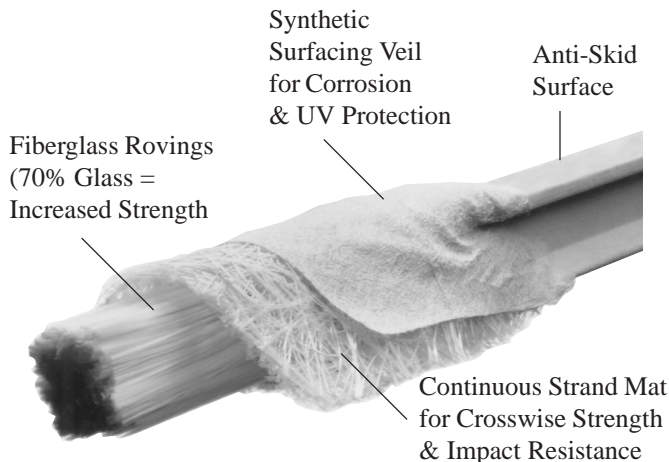
DURADEK® Pultruded Fiberglass Grating is designed to be used as grating and decking in a wide variety of applications:

- General Industry
- Chemical/Petrochemical Plants
- Power Plants
- Food & Beverage Operations
- Water/Wastewater Treatment Plants
- ADA Compliant
- Mass Transit Systems
- Pulp and Paper Plants
- Marine

Specifications

Fiberglass gratings shall be Pultruded DURADEK® **MODEL PFG** (I-6000-1" with 0.9" spacing) (I-4000-1" with 0.4" spacing for ADA). Resins shall be fire retardant vinyl ester meeting the requirements of Class 1 rating of 25 or less per ASTM E-84 and meets the self-extinguishing requirements of ASTM D-635. Color shall be (STANDARD GRAY) (ADA BLUE). Resin shall be UV inhibited and the composite shall include a veil on all exposed surfaces. Assembled panels shall have a permanently bonded grit, baked epoxy, anti-skid surface. Grating shall be able to carry a uniform distributed load of 200 pounds per square foot on a simple span up to 36" and not deflect more than 0.25 inches. Bearing bars are 1" deep I bars with 0.6" wide top flange. Unique design of the cross rod. Assembly provides mechanical and chemical bonding to each bar. Widths up to 15" are provided with two cross rod assemblies. Additional cross rod assemblies are spaced approximately 9" apart up to 36" total grating width. Standard gray grating bars are spaced 0.9" apart. ADA Compliant Blue grating bars are spaced 0.4" apart.

Specifications subject to change without notice.



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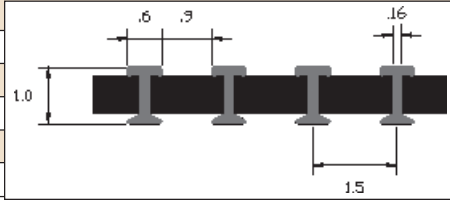
www.imcteddy.com

PFG-20 0103

I-6000 1" Bearing Bars Spaced 0.9" Apart

A = 2.496 IN²/FT OF WIDTH S = 0.656 IN³/FT OF WIDTH I = 0.328 IN⁴/FT OF WIDTH

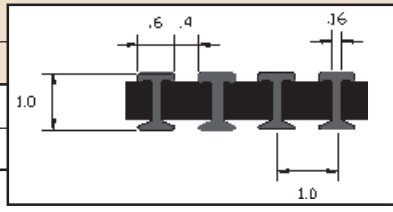
SPAN INCHES																SAFE LOAD 2:1 MINIMUM SAFETY FACTOR		E x 10 ⁶ PSI		
		u	Δu	c	Δc	u	Δu	c	Δc	u	Δu	c	Δc	u	Δu	u	c			
12	u	200	400	600	800	1000	1500	2000	2500	3000	4000	5000	6000	7000	8000	9000	10000	20,800	10,400	3.78
	Δu	.004	.007	.011	.015	.018	.027	.036	.045	.054	.073	.091	.109	.127	.145	.163	.181	.378	.189	
	c	100	200	300	400	500	750	1000	1250	1500	2000	2500	3000	3500	4000	4500	5000	10,400	5,200	
18	Δc	.003	.006	.009	.012	.014	.022	.029	.036	.043	.058	.073	.087	.102	.116	.130	.145	.301	.150	4.15
	u	133	267	400	533	667	1000	1333	1667	2000	2667	3333	4000	4667				9,908	4,954	
	Δu	.011	.022	.033	.045	.056	.084	.112	.139	.167	.223	.279	.335	.390				.828	.414	
24	c	100	200	300	400	500	750	1000	1250	1500	2000	2500	3000	3500				7,430	3,715	4.41
	Δc	.009	.018	.026	.036	.045	.067	.090	.111	.134	.178	.223	.268	.312				.662	.331	
	u	100	200	300	400	500	750	1000	1250	1500	2000	2500						5,800	2,900	
30	Δu	.025	.050	.075	.100	.124	.187	.249	.311	.373	.498	.622						1,442	.721	4.63
	c	100	200	300	400	500	750	1000	1250	1500	2000	2500						5,800	2,900	
	Δc	.020	.040	.060	.080	.099	.150	.199	.249	.298	.398	.498						1,154	.577	
36	u	80	160	240	320	400	600	800	1000	1200	1600							3,712	1,856	4.83
	Δu	.046	.092	.139	.185	.231	.346	.462	.577	.693	.924							2,143	1,071	
	c	100	200	300	400	500	750	1000	1250	1500	2000							4,640	2,320	
36	Δc	.037	.074	.111	.148	.185	.277	.370	.462	.554	.739							1,714	.857	4.83
	u	67	133	200	267	333	500	667	833									2,577	1,287	
	Δu	.077	.153	.230	.307	.383	.575	.767	.957									2,962	1,481	
36	c	100	200	300	400	500	750	1000	1250									3,866	1,933	
	Δc	.062	.122	.184	.246	.306	.460	.614	.766									2,369	1,184	



I-4000 1" I Bearing Bars Spaced 0.4" Apart

1" I BEARING BARS: VALUES FOR 12 BARS PER FT OF WIDTH
 A = 3.744 IN²/FT OF WIDTH S = 0.984 IN³/FT OF WIDTH
 I = 0.492 IN⁴/FT OF WIDTH³
 WEIGHT/FOOT = .253 LBS/FT OF BAR
 WEIGHT/FOOT = .302 LBS/FT OF CROSS ROD

SPAN (IN.)																SAFE LOAD 2:1 MAXIMUM SAFETY FACTOR		E x 10 ⁶ PSI			
		u	Δu	c	Δc	u	Δu	c	Δc	u	Δu	c	Δc	u	Δu	u	c				
12	u	200	400	600	800	1000	1500	2000	2500	3000	4000	5000	6000	7000	8000	9000	10000	11000	31,200	15,600	3.78
	Δu	.002	.005	.007	.010	.012	.018	.024	.030	.036	.048	.060	.073	.085	.097	.109	.121	.133	.377	.188	
	c	100	200	300	400	500	750	1000	1250	1500	2000	2500	3000	3500	4000	4500	5000	5500	15,600	7,800	
18	Δc	.002	.004	.006	.008	.010	.015	.019	.024	.029	.039	.048	.058	.068	.078	.087	.097	.107	.303	.151	4.15
	u	133	267	400	533	667	1000	1333	1667	2000	2667	3333	4000	4667	5333	6000	6667	7333	14,862	7,431	
	Δu	.007	.015	.022	.030	.037	.056	.074	.093	.111	.149	.186	.223	.260	.297	.334	.371	.408	.828	.414	
24	c	100	200	300	400	500	750	1000	1250	1500	2000	2500	3000	3500	4000	4500	5000	5500	11,145	5,572	4.41
	Δc	.006	.012	.018	.024	.030	.045	.059	.074	.089	.119	.149	.178	.208	.238	.268	.297	.327	.663	.331	
	u	100	200	300	400	500	750	1000	1250	1500	2000	2500	3000	3500	4000				8,700	4,350	
30	Δu	.017	.033	.050	.066	.083	.124	.165	.207	.248	.331	.414	.496	.579	.662				1,439	.719	4.63
	c	100	200	300	400	500	750	1000	1250	1500	2000	2500	3000					8,700	4,350		
	Δc	.013	.026	.040	.053	.066	.099	.132	.165	.199	.265	.331	.397	.463	.530				1,152	.576	
36	u	80	160	240	320	400	600	800	1000	1200	1600	2000	2400						5,568	2,784	4.83
	Δu	.031	.062	.092	.123	.154	.231	.308	.385	.462	.616	.770	.924						2,143	1,071	
	c	100	200	300	400	500	750	1000	1250	1500	2000	2500	3000						6,960	3,480	
36	Δc	.025	.049	.074	.099	.123	.185	.246	.308	.370	.493	.616	.739						1,714	.857	4.83
	u	67	133	200	267	333	500	667	833	1000	1333								3,866	1,933	
	Δu	.051	.102	.153	.204	.255	.383	.511	.638	.766	1.021								2,961	1,480	
36	c	100	200	300	400	500	750	1000	1250	1500	2000								5,799	2,899	
	Δc	.041	.082	.123	.163	.204	.306	.408	.510	.613	.817								2,368	1,184	



DEFLECTION AND MAXIMUM LOAD DATA WAS CALCULATED FROM LAB TESTS CONDUCTED BY STRONGWELL-CHATFIELD DIVISION

Loadings to the left of the bold vertical line in a row produce a deflection of less than .25 inches.

- C** IS CONCENTRATED LOAD LBS/FT OF WIDTH
- ΔC** IS DEFLECTION UNDER CONCENTRATED LOAD
- U** IS UNIFORM LOAD LBS/FT²
- ΔU** IS DEFLECTION UNDER UNIFORM LOAD

