

# SI Series Pultruded Grating

Standard lengths are 8', 10', 12', 20' and 24'. We recommend ordering 8', 10', and 12' panels when possible to reduce freight damage and shipping costs.

Standard color for SI gratings is yellow for vinyl ester (VF). Also available in gray.

Standard gratings are furnished with gritted, skid resistant top surface.

Standard cross bar spacing is 6" on center.

Pultruded SI Series						
Section	1" SI83	1-1/4" SI83	1-1/2" SI83	1" SI73	1-1/4" SI73	1-1/2" SI73
Depth	1"	1-1/4"	1-1/2"	1"	1-1/4"	1-1/2"
Open Space	1-9/16"	1-9/16"	1-9/16"	7/8"	7/8"	7/8"
Standard Widths	35.625", 46.875"	35.625", 46.875"	35.625", 46.875"	23.75", 35.63"	23.75", 35.63"	23.75", 35.63"
Weight (Lbs/SF)	1.74 lbs.	2.1 lbs.	2.45 lbs.	2.7 lbs.	3.3 lbs.	3.8 lbs.
Open Area	83%	83%	83%	73%	73%	73%
I in <sup>4</sup> /ft of width	0.16	0.30	0.515	0.248	0.477	0.813
S in <sup>3</sup> /ft of width	0.32	0.48	0.686	0.496	0.763	1.084
<b>I = Moment of Inertia • S = Section Modulus</b>						

For SI grating use SFM saddle clips.

Product	UNIFORM LOADS - psf (Deflection in Inches)										CONCENTRATED LOADS - lbs/Ft of Width (Deflection in Inches)									
	Load/Span	24"	30"	36"	42"	48"	54"	60"	66"	72"	Load/Span	24"	30"	36"	42"	48"	54"	60"	66"	72"
1" SI83	50	.02	.05	.09	.17	.30	.47	—	—	—	200	.05	.12	.20	.31	.47	—	—	—	—
	100	.03	.10	.19	.34	—	—	—	—	—	300	.07	.18	.30	.47	—	—	—	—	—
	250	.08	.24	.46	—	—	—	—	—	—	500	.12	.31	.49	—	—	—	—	—	—
	Max Recommended Load	2070	1320	920	670	510	400	320	270	220	Max Recommended Load	2070	1660	1380	1180	1030	910	810	740	680
	Ultimate Capacity	5190	3320	2300	1690	1290	1010	810	670	560	Ultimate Capacity	5190	4150	3450	2950	2580	2270	2040	1860	1700
1-1/4" SI83	50	.01	.03	.05	.10	.17	.32	—	—	—	200	.04	.07	.11	.17	.28	.45	—	—	—
	100	.02	.06	.10	.19	.35	—	—	—	—	300	.06	.11	.17	.26	.42	—	—	—	—
	250	.06	.14	.26	.48	—	—	—	—	—	500	.10	.18	.28	.44	—	—	—	—	—
	Max Recommended Load	3220	2060	1420	1050	790	630	500	420	350	Max Recommended Load	3220	2570	2140	1840	1590	1420	1270	1150	1060
	Ultimate Capacity	8050	5150	3570	2620	1990	1580	1270	1050	880	Ultimate Capacity	8050	6430	5360	4600	3990	3570	3180	2890	2650
1-1/2" SI83	50	<.01	.02	.04	.06	.11	.17	.25	.37	—	200	.03	.05	.08	.12	.17	.24	.32	.43	—
	100	.02	.04	.07	.13	.21	.34	—	—	—	300	.04	.08	.11	.17	.26	.36	.49	—	—
	250	.04	.10	.18	.32	—	—	—	—	—	500	.06	.13	.19	.29	.43	—	—	—	—
	Max Recommended Load	4580	2930	2030	1490	1140	900	730	590	500	Max Recommended Load	4580	3670	3050	2610	2280	2030	1830	1640	1520
	Ultimate Capacity	11460	7340	5090	3730	2860	2250	1830	1490	1260	Ultimate Capacity	11460	9170	7640	6530	5720	5080	4580	4120	3800
1" SI73	50	.01	.03	.06	.11	.19	.30	.46	—	—	200	.04	.08	.13	.20	.30	.43	—	—	—
	100	.03	.06	.12	.22	.38	—	—	—	—	300	.06	.11	.19	.31	.46	—	—	—	—
	250	.05	.12	.24	—	—	—	—	—	—	500	.10	.19	.32	—	—	—	—	—	—
	Max Recommended Load	3220	2060	1430	1050	800	630	510	—	—	Max Recommended Load	3220	2580	2150	1840	1610	1430	1290	—	—
	Ultimate Capacity	8050	5150	3570	2620	2000	1570	1270	—	—	Ultimate Capacity	8050	6450	5450	4600	4020	3570	3220	—	—
1-1/4" SI73	50	.01	.02	.03	.06	.11	.20	.37	—	—	200	.02	.04	.07	.11	.18	.28	.47	—	—
	100	.02	.03	.07	.12	.22	.40	—	—	—	300	.04	.06	.10	.17	.27	.42	—	—	—
	200	.03	.07	.13	.24	—	—	—	—	—	500	.06	.10	.17	.28	—	—	—	—	—
	Max Recommended Load	5110	3270	2270	1670	1270	1010	810	670	—	Max Recommended Load	5110	4090	3400	2920	2550	2270	2040	1850	—
	Ultimate Capacity	12770	8170	5670	4170	3170	2520	2020	1670	—	Ultimate Capacity	12770	10220	8500	7300	6370	5670	5100	4620	—
1-1/2" SI73	50	.01	.01	.02	.04	.07	.11	.16	.24	.33	200	.02	.03	.05	.07	.11	.15	.21	.27	.35
	100	.01	.02	.05	.08	.14	.22	.32	.47	—	300	.02	.04	.07	.11	.16	.23	.31	.41	—
	200	.02	.05	.09	.16	.27	.43	—	—	—	500	.04	.07	.12	.19	.27	.38	—	—	—
	Max Recommended Load	7250	4640	3220	2360	1810	1430	1160	950	590	Max Recommended Load	7250	5800	4830	4140	3620	3220	2900	2630	2410
	Ultimate Capacity	18120	11600	8050	5900	4520	3570	2900	2370	1250	Ultimate Capacity	18120	14500	12070	10350	9050	8050	7250	6570	6020

**NOTES**

1. Deflection for uniform loads is limited to L/120 with L representing clear span length in inches. For typical pedestrian traffic, uniform load of 50 PSF is recommended with deflection not to exceed .375".
2. Deflections for concentrated loads are shown for the same span conditions as for uniform loads.
3. Deflection limits can be higher for fiberglass gratings as they are more resilient than metal materials.
4. Maximum recommended loads have been determined by applying a 2.5 Factor of Safety (FOS) to the Ultimate Capacity of the grating.

# WT Series Pultruded Grating

Standard lengths are 8', 10', 12', 20' and 24'.  
ordering 8', 10', and 12' panels when possible to  
reduce freight damage and shipping costs.

Standard color for 1" an 1-1/2" WT gratings is  
light gray for both isophthalic polyester (PF)  
and vinyl ester (VF) resin systems.

Standard gratings are furnished with gritted,  
skid resistant top surface.

Standard cross bar spacing is 12" on center.

Pultruded 1" and 1-1/2" WT Series						
Section	1" WT35	1" WT18	1" WT00	1-1/2" WT35	1-1/2" WT18	1-1/2" WT00
Depth	1"	1"	1"	1-1/2"	1-1/2"	1-1/2"
Open Space	7/8"	3/8"	0"	7/8"	3/8"	0"
Standard Widths	35", 47-1/2"	3', 4'	35", 47-1/8"	35", 47-1/2"	3', 4'	35-3/4", 47-1/8"
Weight (Lbs/SF)	2.8 lbs	3.3 lbs	4.0 lbs	2.7 lbs	3.3 lbs	4.0 lbs
Open Area	35%	18%	0%	35%	18%	0%
I in <sup>4</sup> /ft of width	0.292	0.365	0.449	0.769	0.962	1.183
S <sub>T</sub> in <sup>3</sup> /ft of width	0.820	1.025	1.261	1.380	1.747	2.149
S <sub>B</sub> in <sup>3</sup> /ft of width	.454	.567	.697	.810	1.013	1.246
I = Moment of Inertia • S = Section Modulus						

Custom lengths, colors, bar spacings, and finishes are available, contact Fibergate for assistance.

For WT35 and WT18 grating use WT1 fiberglass fastener plates.  
For WT00 grating use WLP clip assemblies. (1" - WLP1, 1-1/2" - WLP2)

Product	UNIFORM LOADS - psf (Deflection in Inches)										CONCENTRATED LOADS - lbs/Ft of Width (Deflection in Inches)									
	Load/Span	24"	30"	36"	42"	48"	54"	60"	66"	72"	Load/Span	24"	30"	36"	42"	48"	54"	60"	66"	72"
1" WT35	50	.02	.04	.09	.15	.26	.37	—	—	—	200	.06	.11	.18	.28	.41	—	—	—	—
	100	.04	.08	.17	.30	—	—	—	—	—	300	.09	.16	.27	.42	—	—	—	—	—
	250	.07	.17	.34	—	—	—	—	—	—	500	.15	.27	.46	—	—	—	—	—	—
	Max Recommended Load	1700	1080	740	530	400	—	—	—	—	Max Recommended Load	1700	1350	1110	930	800	—	—	—	—
	Ultimate Capacity	4250	2700	1850	1320	1000	—	—	—	—	Ultimate Capacity	4250	3370	2770	2320	2000	—	—	—	—
1" WT18	50	.01	.03	.07	.12	.20	—	—	—	—	200	.05	.09	.15	.22	.33	.42	—	—	—
	100	.03	.07	.14	.24	—	—	—	—	—	300	.07	.13	.22	.34	—	—	—	—	—
	200	.06	.14	.27	—	—	—	—	—	—	500	.12	.22	.37	—	—	—	—	—	—
	Max Recommended Load	2130	1350	920	660	500	—	—	—	—	Max Recommended Load	2130	1690	1380	1160	1000	—	—	—	—
	Ultimate Capacity	5320	3370	2300	1650	1250	—	—	—	—	Ultimate Capacity	5320	4220	3450	2900	2500	—	—	—	—
1" WT00	50	.01	.03	.06	.10	.17	.24	.33	—	—	200	.04	.07	.12	.18	.27	.34	.43	—	—
	100	.02	.06	.11	.20	.33	—	—	—	—	300	.06	.11	.18	.27	.40	—	—	—	—
	200	.05	.11	.22	—	—	—	—	—	—	500	.10	.18	.30	—	—	—	—	—	—
	Max Recommended Load	2620	1660	1140	820	610	—	—	—	—	Max Recommended Load	2620	2080	1710	1430	1230	—	—	—	—
	Ultimate Capacity	6550	4150	2850	2050	1525	—	—	—	—	Ultimate Capacity	6550	5200	4275	3570	3070	—	—	—	—
1-1/2" WT35	50	.01	.02	.04	.07	.10	.15	.20	.26	.32	200	.03	.06	.09	.12	.17	.21	.25	.30	.34
	100	.02	.04	.08	.13	.21	.29	.40	—	—	300	.05	.08	.13	.19	.25	.31	.38	.45	—
	200	.04	.09	.16	.27	—	—	—	—	—	500	.08	.14	.22	.31	—	—	—	—	—
	Max Recommended Load	3040	1930	1320	950	710	560	450	370	310	Max Recommended Load	3040	2410	1980	1660	1420	1270	1140	1030	950
	Ultimate Capacity	7600	4820	3300	2370	1770	1400	1125	920	770	Ultimate Capacity	7550	6020	4950	4150	3550	3170	2850	2570	2370
1-1/2" WT18	50	.01	.02	.03	.05	.08	.12	.16	.21	.26	200	.02	.04	.07	.10	.13	.17	.20	.24	.28
	100	.02	.03	.06	.11	.17	.23	.32	.41	—	300	.04	.07	.10	.15	.20	.25	.30	.36	.41
	200	.03	.07	.13	.22	.33	—	—	—	—	500	.06	.11	.17	.25	.33	.42	—	—	—
	Max Recommended Load	3810	2410	1650	1180	890	700	570	470	390	Max Recommended Load	3810	3020	2470	2080	1780	1580	1420	1290	1190
	Ultimate Capacity	9525	6025	4120	2950	2220	1750	1420	1170	970	Ultimate Capacity	9520	7550	6170	5200	4450	3950	3550	3220	2970
1-1/2" WT00	50	.01	.02	.03	.04	.07	.10	.13	.17	.21	200	.02	.04	.06	.08	.11	.13	.16	.19	.22
	100	.01	.03	.05	.09	.13	.19	.26	.33	.42	300	.03	.05	.08	.12	.16	.20	.25	.29	.34
	200	.02	.06	.11	.18	.27	.38	—	—	—	500	.05	.09	.14	.20	.27	.34	.41	.49	—
	Max Recommended Load	4690	2970	2030	1460	1090	860	700	580	480	Max Recommended Load	4690	3710	3040	2560	2190	1950	1750	1590	1460
	Ultimate Capacity	11720	7420	5070	3650	2720	2150	1750	1450	1200	Ultimate Capacity	6720	9270	7600	6400	5470	4870	4370	3970	3560

**NOTES**

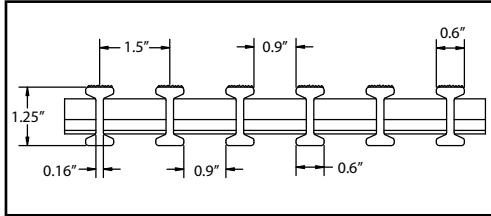
1. Deflection for uniform loads is limited to L/120 with L representing clear span length in inches. For typical pedestrian traffic, uniform load of 50 PSF is recommended with deflection not to exceed .375".
2. Deflections for concentrated loads are shown for the same span conditions as for uniform loads.
3. Deflection limits can be higher for fiberglass gratings as they are more resilient than metal materials.
4. Maximum recommended loads have been determined by applying a 2.5 Factor of Safety (FOS) to the Ultimate Capacity of the grating.

# 1-1/4" Safe-T-Span® Industrial Grating

## Grating Details

### 1-1/4" Deep I60125

# of Bars/ Ft of Width	Load Bar Depth	Open Area	Load Bar Centers	Approx. Weight
8	1-1/4"	60%	1.5"	2.6 lbs./ft <sup>2</sup>



Section Properties per Ft of Width:  
 $A = 2.96 \text{ IN}^2$   $I = 0.578 \text{ IN}^4$   $S = 0.928 \text{ IN}^3$

Safe-T-Span industrial grating is also available in 1-1/4" depth in the 40% and 60% open areas.

### I60125 PULTRUDED SERIES UNIFORM LOAD TABLE - DEFLECTIONS IN INCHES

CLEAR SPAN (in)	UNIFORM LOADS (psf)							MAXIMUM RECOMMENDED LOAD (psf)	ULTIMATE CAPACITY (psf)
	50	100	200	300	500	1000	2000		
12	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.04	7990	15990
18	<0.01	<0.01	0.01	0.02	0.03	0.05	0.10	4090	8180
24	<0.01	0.01	0.03	0.04	0.07	0.15	0.29	2970	5950
30	0.02	0.03	0.07	0.10	0.17	0.34	—	2180	4360
36	0.03	0.07	0.13	0.20	0.33	—	—	1650	3310
42	0.06	0.12	0.24	0.36	—	—	—	1290	2580
48	0.10	0.20	0.40	—	—	—	—	1020	2040
54	0.16	0.31	—	—	—	—	—	850	1700
60	0.24	0.47	—	—	—	—	—	710	1430
72	0.47	—	—	—	—	—	—	510	1020

### I60125 PULTRUDED SERIES LINE LOAD TABLE - DEFLECTIONS IN INCHES

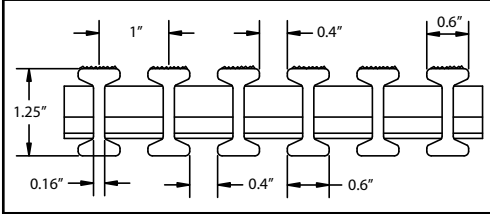
CLEAR SPAN (in)	LINE LOADS (LBS/FT of Width)							MAXIMUM RECOMMENDED LOAD (lb/ft)	ULTIMATE CAPACITY (lb/ft)
	50	100	200	300	500	1000	2000		
12	<0.01	<0.01	<0.01	<0.01	0.01	0.03	0.06	3990	7990
18	<0.01	<0.01	0.01	0.02	0.03	0.06	0.11	3060	6130
24	<0.01	0.01	0.02	0.04	0.06	0.12	0.24	2970	5950
30	0.01	0.02	0.04	0.06	0.11	0.22	0.43	2730	5460
36	0.02	0.04	0.07	0.11	0.18	0.35	—	2480	4960
42	0.03	0.05	0.11	0.16	0.27	—	—	2260	4520
48	0.04	0.08	0.16	0.24	0.40	—	—	2040	4090
54	0.06	0.11	0.22	0.34	—	—	—	1910	3830
60	0.08	0.15	0.30	0.45	—	—	—	1780	3570
72	0.13	0.25	—	—	—	—	—	1530	3060

# 1-1/4" Safe-T-Span® Industrial Grating

## Grating Details

### 1-1/4" Deep I40125

# of Bars/ Ft of Width	Load Bar Depth	Open Area	Load Bar Centers	Approx. Weight
12	1-1/4"	40%	1"	4 lbs./ft <sup>2</sup>



Section Properties per Ft of Width:  
 $A = 4.44 \text{ IN}^2$   $I = 0.868 \text{ IN}^4$   $S = 1.388 \text{ IN}^3$

Safe-T-Span industrial grating is also available in 1-1/4" depth in the 40% and 60% open areas.

### I40125 PULTRUDED SERIES UNIFORM LOAD TABLE - DEFLECTIONS IN INCHES

CLEAR SPAN (in)	UNIFORM LOADS (psf)							MAXIMUM RECOMMENDED LOAD (psf)	ULTIMATE CAPACITY (psf)
	50	100	200	300	500	1000	2000		
12	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.04	11880	23770
18	<0.01	<0.01	<0.01	0.01	0.02	0.04	0.08	7240	14490
24	<0.01	<0.01	0.02	0.03	0.05	0.10	0.20	4780	9570
30	0.01	0.02	0.04	0.07	0.11	0.22	0.43	3360	6720
36	0.02	0.04	0.08	0.12	0.21	0.41	—	2540	5080
42	0.04	0.07	0.15	0.22	0.37	—	—	1930	3870
48	0.06	0.13	0.25	0.38	—	—	—	1530	3070
54	0.10	0.20	0.40	—	—	—	—	1230	2460
60	0.15	0.31	—	—	—	—	—	1010	2020
72	0.32	—	—	—	—	—	—	720	1450

### I40125 PULTRUDED SERIES LINE LOAD TABLE - DEFLECTIONS IN INCHES

CLEAR SPAN (in)	LINE LOADS (LBS/FT of Width)							MAXIMUM RECOMMENDED LOAD (lb/ft)	ULTIMATE CAPACITY (lb/ft)
	50	100	200	300	500	1000	2000		
12	<0.01	<0.01	<0.01	<0.01	0.01	0.03	0.06	5940	11880
18	<0.01	<0.01	<0.01	0.01	0.02	0.04	0.09	5430	10870
24	<0.01	<0.01	0.02	0.02	0.04	0.08	0.16	4780	9570
30	<0.01	0.01	0.03	0.04	0.07	0.11	0.22	4290	8590
36	0.01	0.02	0.04	0.07	0.11	0.22	0.44	3810	7620
42	0.02	0.03	0.07	0.10	0.17	0.34	—	3440	6880
48	0.03	0.05	0.10	0.15	0.25	0.50	—	3070	6150
54	0.04	0.07	0.14	0.21	0.36	—	—	2850	5700
60	0.05	0.10	0.20	0.29	0.49	—	—	2620	5250
72	0.08	0.17	0.34	—	—	—	—	2170	4350