

LOAD TABLES

I4015 and I6015 Phenolic Grating

UNIFORM LOAD TABLE - DEFLECTION IN INCHES											MAX REC LOAD (PSF)	ULTIMATE CAPACITY (PSF)	EFF. EI x 10 ⁶	
CLEAR SPAN (IN)	STYLE	UNIFORM LOAD = LBS PER SQ FOOT												
		50	65	100	200	300	400	500	1000	2000				
12	I6015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	9375	18750	2.46
	I4015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	14063	28125	3.69
18	I6015	<0.01	<0.01	<0.01	0.01	0.01	0.01	0.02	0.03	0.07	5415	10830	3.41	
	I4015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.05	8123	16245	5.12	
24	I6015	<0.01	0.01	0.01	0.02	0.02	0.03	0.04	0.08	0.17	3750	7500	4.36	
	I4015	<0.01	<0.01	<0.01	0.01	0.01	0.02	0.03	0.05	0.11	5625	11250	6.54	
30	I6015	0.01	0.01	0.02	0.04	0.06	0.08	0.10	0.19	0.39	2625	5250	4.51	
	I4015	<0.01	<0.01	0.01	0.03	0.04	0.05	0.07	0.13	0.26	3938	7875	6.77	
36	I6015	0.02	0.03	0.04	0.08	0.12	0.16	0.20	0.39	—	1985	3970	4.66	
	I4015	0.01	0.02	0.03	0.05	0.08	0.11	0.13	0.26	—	2978	5955	6.99	
42	I6015	0.04	0.05	0.07	0.14	0.21	0.28	0.36	—	—	1515	3030	4.74	
	I4015	0.03	0.03	0.05	0.09	0.14	0.19	0.24	—	—	2273	4545	7.11	
48	I6015	0.06	0.08	0.12	0.24	0.36	0.48	—	—	—	1210	2420	4.83	
	I4015	0.04	0.05	0.08	0.16	0.24	0.32	—	—	—	1815	3630	7.25	
54	I6015	0.09	0.12	0.19	0.38	—	—	—	—	—	1015	2030	4.92	
	I4015	0.06	0.08	0.13	0.25	—	—	—	—	—	1523	3045	7.38	
60	I6015	0.14	0.18	0.28	0.56	—	—	—	—	—	875	1750	5.00	
	I4015	0.09	0.12	0.19	0.37	—	—	—	—	—	1313	2625	7.50	
66	I6015	0.21	0.27	0.41	—	—	—	—	—	—	725	1450	5.00	
	I4015	0.14	0.18	0.27	—	—	—	—	—	—	1088	2175	7.50	
72	I6015	0.29	0.38	0.58	—	—	—	—	—	—	615	1230	5.00	
	I4015	0.19	0.25	0.39	—	—	—	—	—	—	923	1845	7.50	

- The above gratings were tested in accordance with the procedure recommended by the Fiberglass Grating Manufacturers Council of the Composites Fabricators Association.
- Deflections have been limited to approximately 1/2" or Clear Span/100 as recommended by the Fiberglass Grating Manufacturers Council.
- 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 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 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.
- 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 ASCE Structural Plastics Design Manual.
- The "EFF. EI" column has been back calculated as the effective E times the moment of inertia per foot of width of grating. This value increases with span as the shear deflection contribution becomes insignificant.

LOAD TABLES

I4015 and I6015 Phenolic Grating

CONCENTRATED LINE LOAD TABLE - DEFLECTION IN INCHES											MAX REC LOAD (PSF)	ULTIMATE CAPACITY (PSF)	EFF. EI x 10 ⁶	
CLEAR SPAN (IN)	STYLE	LINE LOAD = LBS PER FOOT OF PANEL WIDTH												
		50	65	100	200	300	400	500	1000	2000				
12	I6015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.03	4685	9370	2.46
	I4015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	7028	14055	3.69
18	I6015	<0.01	<0.01	<0.01	0.01	0.01	0.01	0.01	0.02	0.04	0.07	4060	8120	3.41
	I4015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.03	0.05	6090	12180	5.12
24	I6015	<0.01	0.01	0.01	0.01	0.02	0.03	0.03	0.07	0.13	0.13	3750	7500	4.36
	I4015	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.02	0.05	0.09	0.09	5625	11250	6.54
30	I6015	0.01	0.01	0.01	0.02	0.04	0.05	0.06	0.12	0.25	0.25	3285	6570	4.51
	I4015	<0.01	<0.01	<0.01	0.01	0.03	0.03	0.04	0.08	0.17	0.17	4928	9855	6.77
36	I6015	0.01	0.01	0.02	0.04	0.06	0.08	0.10	0.21	0.42	0.42	2975	5950	4.66
	I4015	<0.01	<0.01	0.01	0.03	0.04	0.05	0.07	0.14	0.28	0.28	4463	8925	6.99
42	I6015	0.02	0.02	0.03	0.07	0.10	0.13	0.16	0.33	—	—	2655	5310	4.74
	I4015	0.01	0.01	0.02	0.05	0.07	0.09	0.11	0.22	—	—	3983	7965	0.11
48	I6015	0.02	0.03	0.05	0.10	0.14	0.19	0.24	0.48	—	—	2420	4840	4.83
	I4015	0.01	0.02	0.03	0.07	0.09	0.13	0.16	0.32	—	—	3630	7260	7.25
54	I6015	0.03	0.04	0.07	0.13	0.20	0.27	0.33	—	—	—	2290	4580	4.92
	I4015	0.02	0.03	0.05	0.09	0.13	0.18	0.22	—	—	—	3435	6870	7.38
60	I6015	0.04	0.06	0.09	0.18	0.27	0.36	0.45	—	—	—	2190	4380	5.00
	I4015	0.03	0.04	0.06	0.12	0.18	0.24	0.30	—	—	—	3285	6570	7.50
66	I6015	0.06	0.08	0.12	0.24	0.36	0.48	—	—	—	—	2000	4000	5.00
	I4015	0.04	0.05	0.08	0.16	0.24	0.32	—	—	—	—	3000	6000	7.50
72	I6015	0.08	0.10	0.16	0.31	0.47	—	—	—	—	—	1845	3690	5.00
	I4015<	0.05	0.07	0.11	0.21	0.31	—	—	—	—	—	2768	5535	7.50

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