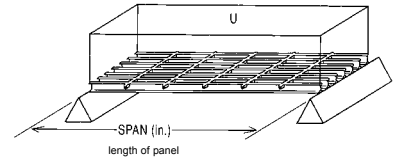


HI47 Grating Uniform Load Chart



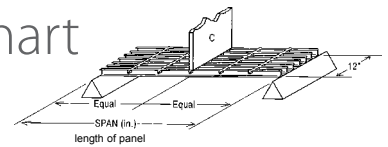
HI47 PULTRUDED SERIES UNIFORM LOAD TABLE - DEFLECTIONS IN INCHES

CLEAR SPAN (in)	STYLE	LOAD (psf)										MAXIMUM RECOM. LOAD (psf)	ULTIMATE CAPACITY (psf)
		100	200	300	400	500	600	700	800	900	1000		
12	HI4710	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.01	12400	37300
	HI4715	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	23200	69600
	HI4720	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	60100	180300
	HI4725	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	61700	185100
	HI4730	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	79200	237600
18	HI4710	<0.01	0.01	0.02	0.02	0.03	0.04	0.04	0.05	0.06	0.06	5900	17800
	HI4715	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.01	0.02	12800	38500
	HI4720	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	27400	82400
	HI4725	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	29600	89000
	HI4730	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	37400	112400
24	HI4710	0.02	0.04	0.06	0.07	0.09	0.11	0.13	0.15	0.17	0.18	3500	10700
	HI4715	<0.01	<0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.04	8600	26000
	HI4720	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.02	0.02	0.02	0.02	15800	47600
	HI4725	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	17900	53900
	HI4730	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	22300	67000
30	HI4710	0.04	0.09	0.13	0.18	0.22	0.27	0.31	0.36	0.40	0.45	2200	6800
	HI4715	0.01	0.02	0.03	0.04	0.05	0.06	0.08	0.09	0.10	0.11	5500	16600
	HI4720	<0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.05	10400	31200
	HI4725	<0.01	<0.01	<0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03	12300	36900
	HI4730	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.01	0.02	0.02	15100	45300
36	HI4710	0.09	0.19	0.28	0.37	0.46	—	—	—	—	—	1500	4700
	HI4715	0.02	0.04	0.07	0.09	0.11	0.13	0.16	0.18	0.20	0.22	3800	11500
	HI4720	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	7400	22200
	HI4725	<0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.05	9100	27300
	HI4730	<0.01	<0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.03	11000	33200
42	HI4710	0.17	0.34	—	—	—	—	—	—	—	—	1100	3500
	HI4715	0.04	0.08	0.12	0.17	0.21	0.25	0.29	0.33	0.37	0.41	2800	8400
	HI4720	0.02	0.04	0.06	0.08	0.09	0.11	0.13	0.15	0.17	0.19	5400	16300
	HI4725	<0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	6900	20800
	HI4730	<0.01	0.01	0.02	0.02	0.03	0.04	0.04	0.05	0.05	0.06	8500	25600
48	HI4710	0.29	—	—	—	—	—	—	—	—	—	800	2600
	HI4715	0.07	0.14	0.21	0.28	0.35	0.42	0.49	—	—	—	2100	6500
	HI4720	0.03	0.06	0.10	0.13	0.16	0.19	0.22	0.26	0.29	0.32	4100	12500
	HI4725	0.02	0.03	0.05	0.07	0.08	0.10	0.12	0.13	0.15	0.16	5400	16400
	HI4730	<0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	6800	20600
52	HI4725	0.02	0.05	0.07	0.09	0.11	0.14	0.16	0.18	0.20	0.23	4600	14000
	HI4730	0.01	0.03	0.04	0.05	0.07	0.08	0.09	0.11	0.12	0.13	5900	17800
60	HI4725	0.04	0.08	0.12	0.16	0.20	0.24	0.28	0.32	0.36	0.40	3500	10500
	HI4730	0.02	0.05	0.07	0.10	0.12	0.14	0.17	0.19	0.21	0.24	4500	13600
66	HI4725	0.06	0.12	0.18	0.24	0.29	0.35	0.41	0.47	—	—	2900	8700
	HI4730	0.03	0.07	0.10	0.14	0.17	0.21	0.24	0.28	0.31	0.35	3700	11300
72	HI4725	0.08	0.17	0.25	0.33	0.42	—	—	—	—	—	2400	7300
	HI4730	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.39	0.44	0.49	3100	9500
84	HI4725	0.15	0.31	0.46	—	—	—	—	—	—	—	1700	5300
	HI4730	0.09	0.18	0.27	0.37	0.46	—	—	—	—	—	2300	6900
96	HI4725	0.26	—	—	—	—	—	—	—	—	—	1300	4100
	HI4730	0.16	0.31	0.47	—	—	—	—	—	—	—	1700	5300

NOTES:

- The designer should not exceed the MAX RECOMMENDED LOAD at any given span. MAX RECOMMENDED LOAD represents a 3:1 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.
- The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperatures only. Allowable loads for impact 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.
- Fibergate does not recommend this product for turning wheel loads. If these conditions are expected, contact Fibergate Engineering.
- Fibergate recommends a maximum deflection of 0.25" for this product under normal loading conditions. The use of L/500 may be required by certain construction codes. Check code requirements to determine design criteria.
- All gratings were tested in accordance with the ANSI Standard: FRP Composites Grating Manual for Pultruded and Molded Grating and Stair Treads.

HI47 Grating Concentrated Line Load Chart



HI47 PULTRUDED SERIES LINE LOAD TABLE - DEFLECTIONS IN INCHES

CLEAR SPAN (in)	STYLE	LOAD (LBS/FT of Width)										MAXIMUM RECOM. LOAD (lbs/ft)	ULTIMATE CAPACITY (lbs/ft)
		100	200	300	500	1000	2000	3000	4000	5000	6000		
12	HI4710	<0.01	<0.01	<0.01	0.01	0.02	0.04	0.06	0.08	0.11	0.13	6200	18600
	HI4715	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.02	0.03	0.04	11600	34800
	HI4720	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	30000	90100
	HI4725	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	30800	92500
	HI4730	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	39600	118800
18	HI4710	<0.01	0.01	0.02	0.03	0.07	0.13	0.20	0.27	0.33	0.40	4400	13300
	HI4715	<0.01	<0.01	<0.01	<0.01	0.02	0.03	0.05	0.07	0.09	0.10	9600	28900
	HI4720	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.02	0.03	0.04	0.05	20600	61800
	HI4725	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.02	0.03	22200	66800
	HI4730	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.02	28100	84300
24	HI4710	0.01	0.03	0.04	0.07	0.15	0.29	0.44	—	—	—	3500	10700
	HI4715	<0.01	<0.01	0.01	0.02	0.04	0.07	0.11	0.14	0.18	0.21	8600	26000
	HI4720	<0.01	<0.01	<0.01	<0.01	0.02	0.03	0.05	0.07	0.09	0.10	15800	47600
	HI4725	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.03	0.04	0.05	0.06	17900	53900
	HI4730	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.02	0.03	0.04	22300	67000
30	HI4710	0.03	0.06	0.09	0.14	0.29	—	—	—	—	—	2800	8500
	HI4715	<0.01	0.01	0.02	0.03	0.07	0.14	0.21	0.27	0.34	0.41	6900	20800
	HI4720	<0.01	<0.01	<0.01	0.02	0.03	0.07	0.10	0.13	0.16	0.20	13000	39000
	HI4725	<0.01	<0.01	<0.01	<0.01	0.02	0.04	0.05	0.07	0.09	0.11	15300	46100
	HI4730	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.03	0.04	0.06	0.07	18900	56700
36	HI4710	0.05	0.10	0.15	0.25	0.50	—	—	—	—	—	2300	7100
	HI4715	0.01	0.02	0.04	0.06	0.12	0.24	0.36	0.48	—	—	5700	17300
	HI4720	<0.01	0.01	0.02	0.03	0.05	0.11	0.16	0.22	0.27	0.32	11100	33400
	HI4725	<0.01	<0.01	<0.01	0.01	0.03	0.06	0.09	0.12	0.15	0.17	13600	41000
	HI4730	<0.01	<0.01	<0.01	<0.01	0.02	0.04	0.06	0.07	0.09	0.11	16600	49800
42	HI4710	0.08	0.16	0.24	0.39	—	—	—	—	—	—	2000	6100
	HI4715	0.02	0.04	0.06	0.09	0.19	0.38	—	—	—	—	4900	14800
	HI4720	<0.01	0.02	0.03	0.04	0.09	0.17	0.26	0.34	0.43	—	9500	28600
	HI4725	<0.01	<0.01	0.01	0.02	0.05	0.09	0.14	0.18	0.23	0.27	12100	36400
	HI4730	<0.01	<0.01	<0.01	0.01	0.03	0.06	0.08	0.11	0.14	0.17	14900	44900
48	HI4710	0.12	0.24	0.35	—	—	—	—	—	—	—	1700	5300
	HI4715	0.03	0.06	0.08	0.14	0.28	—	—	—	—	—	4300	13000
	HI4720	0.01	0.03	0.04	0.06	0.13	0.26	0.38	—	—	—	8300	25000
	HI4725	<0.01	0.01	0.02	0.03	0.07	0.13	0.20	0.26	0.33	0.40	10900	32900
	HI4730	<0.01	<0.01	0.01	0.02	0.04	0.08	0.12	0.16	0.20	0.24	13700	41200
52	HI4725	<0.01	0.02	0.03	0.04	0.08	0.17	0.25	0.34	0.42	—	10100	30400
	HI4730	<0.01	<0.01	0.01	0.02	0.05	0.10	0.15	0.20	0.25	0.30	12900	38700
60	HI4725	0.01	0.03	0.04	0.06	0.13	0.26	0.39	—	—	—	8700	26300
	HI4730	<0.01	0.02	0.02	0.04	0.08	0.15	0.23	0.30	0.38	0.46	11400	34200
66	HI4725	0.02	0.03	0.05	0.09	0.17	0.34	—	—	—	—	7900	23900
	HI4730	0.01	0.02	0.03	0.05	0.10	0.20	0.30	0.41	—	—	10300	31100
72	HI4725	0.02	0.04	0.07	0.11	0.22	0.45	—	—	—	—	7300	21900
	HI4730	0.01	0.03	0.04	0.07	0.13	0.26	0.39	—	—	—	9500	28500
84	HI4725	0.04	0.07	0.11	0.18	0.35	—	—	—	—	—	6200	18800
	HI4730	0.02	0.04	0.06	0.10	0.21	0.42	—	—	—	—	8100	24400
96	HI4725	0.05	0.11	0.16	0.26	—	—	—	—	—	—	5400	16400
	HI4730	0.03	0.06	0.09	0.16	0.31	—	—	—	—	—	7100	21300

NOTES:

- The designer should not exceed the MAX RECOMMENDED LOAD at any given span. MAX RECOMMENDED LOAD represents a 3:1 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.
- The allowable loads in this table are for STATIC LOAD CONDITIONS at ambient temperatures only. Allowable loads for impact 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.
- Fibergate does not recommend this product for turning wheel loads. If these conditions are expected, contact Fibergate Engineering.
- Fibergate recommends a maximum deflection of 0.25" for this product under normal loading conditions. The use of L/500 may be required by certain construction codes. Check code requirements to determine design criteria.
- All gratings were tested in accordance with the ANSI Standard: FRP Composites Grating Manual for Pultruded and Molded Grating and Stair Treads.