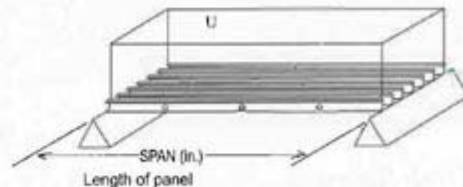


High Load Capacity Load Charts

U Uniform load – lbs/ft²
 ΔU Uniform load deflection (in.)



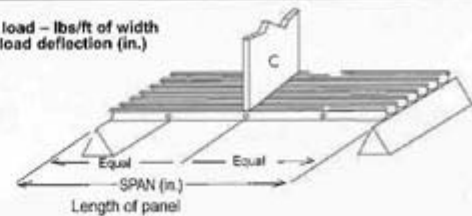
Uniform Load Table - Deflection in Inches														
SPAN (in)	STYLE	LOAD = LBS./FT. ²										MAXIMUM REC. LOAD (psf)	ULTIMATE CAPACITY (psf)	
		100	200	300	400	500	600	700	800	900	1000			
12	HL5815	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	23900	71900
	HL5820	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	35600	106900
	HL5825	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	43100	129300
	HL5830	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	48700	146200
18	HL5815	<0.01	<0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	12400	37400	
	HL5820	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.01	0.01	0.01	20200	60700	
	HL5825	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	23300	70100	
	HL5830	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	23700	71300	
24	HL5815	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.05	8000	24100	
	HL5820	<0.01	<0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	13900	41700	
	HL5825	<0.01	<0.01	<0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	15500	46500	
	HL5830	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.01	0.01	0.01	14500	43600	
30	HL5815	0.01	0.03	0.04	0.05	0.06	0.08	0.09	0.10	0.12	0.13	5100	15500	
	HL5820	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	8900	26700	
	HL5825	<0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.03	10100	30500	
	HL5830	<0.01	<0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	10000	30100	
36	HL5815	0.03	0.05	0.08	0.11	0.13	0.16	0.18	0.21	0.24	—	3600	10800	
	HL5820	0.01	0.02	0.03	0.05	0.06	0.07	0.08	0.09	0.10	0.11	6100	18500	
	HL5825	0.01	0.01	0.02	0.03	0.03	0.04	0.04	0.05	0.06	0.06	7200	21700	
	HL5830	<0.01	0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.04	7500	22500	
42	HL5815	0.05	0.10	0.15	0.20	0.24	—	—	—	—	—	2600	7900	
	HL5820	0.02	0.04	0.06	0.08	0.11	0.13	0.15	0.17	0.19	0.21	4500	13600	
	HL5825	0.01	0.02	0.04	0.05	0.06	0.07	0.08	0.10	0.11	0.12	5300	16000	
	HL5830	0.01	0.01	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	5500	16700	
48	HL5815	0.08	0.17	0.25	—	—	—	—	—	—	—	2000	6100	
	HL5820	0.04	0.07	0.11	0.14	0.18	0.22	0.25	—	—	—	3400	10400	
	HL5825	0.02	0.04	0.06	0.08	0.10	0.12	0.14	0.16	0.18	0.20	4100	12300	
	HL5830	0.01	0.02	0.04	0.05	0.06	0.07	0.08	0.09	0.11	0.12	4300	12900	
54	HL5825	0.03	0.06	0.10	0.13	0.16	0.19	0.23	0.26	0.29	—	3200	9700	
	HL5830	0.02	0.04	0.06	0.07	0.09	0.11	0.13	0.15	0.17	0.19	3400	10200	
60	HL5825	0.05	0.10	0.15	0.20	0.25	0.30	—	—	—	—	2600	7900	
	HL5830	0.03	0.06	0.09	0.11	0.14	0.17	0.20	0.23	0.26	0.29	2700	8200	
66	HL5825	0.07	0.14	0.22	0.29	0.36	—	—	—	—	—	2100	6500	
	HL5830	0.04	0.08	0.13	0.17	0.21	0.25	0.29	0.33	—	—	2200	6800	
72	HL5825	0.10	0.21	0.31	—	—	—	—	—	—	—	1800	5400	
	HL5830	0.06	0.12	0.18	0.24	0.30	0.36	—	—	—	—	1900	5700	
84	HL5825	0.19	0.38	—	—	—	—	—	—	—	—	1300	4000	
	HL5830	0.11	0.22	0.33	0.44	—	—	—	—	—	—	1400	4200	
96	HL5825	0.32	—	—	—	—	—	—	—	—	—	1000	3000	
	HL5830	0.19	0.37	—	—	—	—	—	—	—	—	1000	3200	

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.

High Load Capacity Load Charts

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



Concentrated Line Load Table - Deflection in Inches														
SPAN (in)	STYLE	LOAD = LBS./FT. of Width										H-20 9600 (lb/ft)	MAXIMUM REC. LOAD (lb/ft)	ULTIMATE CAPACITY (lb/ft)
		100	200	300	500	1000	2000	3000	4000	5000	6000			
12	HL5815	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.02	0.03	0.03	0.04	0.06	11900	35900
	HL5820	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.01	0.02	0.02	0.03	17800	53400
	HL5825	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.01	0.01	21500	64600
	HL5830	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.01	24300	73100
18	HL5815	<0.01	<0.01	0.01	0.01	0.02	0.04	0.06	0.08	0.10	0.12	—	9300	28000
	HL5820	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.03	0.04	0.05	0.06	0.09	15100	45500
	HL5825	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.02	0.02	0.03	0.04	17500	52500
	HL5830	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.01	0.02	0.02	0.03	17800	53400
24	HL5815	<0.01	0.01	0.01	0.02	0.04	0.09	0.13	0.17	0.22	—	—	8000	24100
	HL5820	<0.01	<0.01	0.01	0.01	0.02	0.04	0.06	0.08	0.10	0.12	—	13900	41700
	HL5825	<0.01	<0.01	<0.01	0.01	0.01	0.02	0.03	0.04	0.05	0.06	0.10	15500	46500
	HL5830	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.02	0.03	0.03	0.04	0.07	14500	43600
30	HL5815	0.01	0.02	0.02	0.04	0.08	0.17	0.25	—	—	—	—	6400	19400
	HL5820	<0.01	0.01	0.01	0.02	0.04	0.07	0.11	0.15	0.18	0.22	—	11100	33300
	HL5825	<0.01	<0.01	0.01	0.01	0.02	0.04	0.06	0.08	0.10	0.12	—	12700	38200
	HL5830	<0.01	<0.01	<0.01	0.01	0.01	0.02	0.04	0.05	0.06	0.07	0.12	12500	37700
36	HL5815	0.01	0.03	0.04	0.07	0.14	—	—	—	—	—	—	5400	16300
	HL5820	0.01	0.01	0.02	0.03	0.06	0.12	0.18	0.24	—	—	—	9200	27800
	HL5825	<0.01	0.01	0.01	0.02	0.03	0.07	0.10	0.14	0.17	0.21	—	10800	32600
	HL5830	<0.01	<0.01	0.01	0.01	0.02	0.04	0.06	0.08	0.10	0.12	0.19	11200	33800
42	HL5815	0.02	0.04	0.07	0.11	0.22	—	—	—	—	—	—	4600	13900
	HL5820	0.01	0.02	0.03	0.05	0.10	0.19	—	—	—	—	—	7900	23800
	HL5825	0.01	0.01	0.02	0.03	0.05	0.11	0.16	0.22	—	—	—	9300	28100
	HL5830	<0.01	0.01	0.01	0.02	0.03	0.06	0.09	0.13	0.16	0.19	—	9700	29300
48	HL5815	0.03	0.07	0.10	0.17	—	—	—	—	—	—	—	4000	12200
	HL5820	0.01	0.03	0.04	0.07	0.14	—	—	—	—	—	—	6900	20800
	HL5825	0.01	0.02	0.02	0.04	0.08	0.16	0.24	0.32	0.41	0.49	—	8200	24600
	HL5830	<0.01	0.01	0.01	0.02	0.05	0.09	0.14	0.19	0.23	0.28	—	8600	25900
54	HL5825	0.01	0.02	0.03	0.06	0.12	0.23	—	—	—	—	—	7300	21900
	HL5830	0.01	0.01	0.02	0.03	0.07	0.13	0.20	—	—	—	—	7600	23000
60	HL5825	0.02	0.03	0.05	0.08	0.16	0.32	—	—	—	—	—	6500	19700
	HL5830	0.01	0.02	0.03	0.05	0.09	0.18	0.27	—	—	—	—	6900	20700
66	HL5825	0.02	0.04	0.06	0.11	0.21	—	—	—	—	—	—	5900	17900
	HL5830	0.01	0.02	0.04	0.06	0.12	0.24	0.36	—	—	—	—	6200	18800
72	HL5825	0.03	0.05	0.08	0.14	0.27	—	—	—	—	—	—	5400	16400
	HL5830	0.02	0.03	0.05	0.08	0.16	0.32	—	—	—	—	—	5700	17200
84	HL5825	0.04	0.09	0.13	0.22	0.43	—	—	—	—	—	—	4700	14100
	HL5830	0.03	0.05	0.08	0.13	0.25	—	—	—	—	—	—	4900	14800
96	HL5825	0.06	0.13	0.19	0.32	—	—	—	—	—	—	—	4100	12300
	HL5830	0.04	0.07	0.11	0.19	0.37	—	—	—	—	—	—	4300	12900

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- Fibergrate does not recommend this product for turning wheel loads. If these conditions are expected, contact Fibergrate Engineering.
- Fibergrate 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.
- HS20 loading is for a 20-ton vehicle with 80% of the weight on a single axle and the wheel load distributed over a 20" width. Therefore, the line load is 1/2 x 32,000 lb x (12"/20") = 9,600 lb/ft.