



GRATING PACIFIC

ALUMINUM PLANK GRATING LOAD TABLE

HEAVY DUTY ALUMINUM PLANK LOAD TABLE

Aluminum Plank Grating is available in 20' or 26' stock lengths or fabricated to specified size by Grating Pacific. Individual 6" wide planks can be banded together to form standard panel widths for ease of handling and installation. When the width of the total area does not result in an overall measurement divisible by six inch sections, the last piece in the run can be shop modified to facilitate a proper fit.

Plank Depth	Ped. Span (inches)	Sec. Prop.* Sx in ³ Ix in ⁴	Weight per Sq. Ft.			Unsupported Span												
			Non Punched	Rect. Punched	Square Punched	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"	6'-6"	7'-0"	8'-0"	
3/4"	39	0.217 0.103	2.2	1.8	2.0	U	435	278	193	142	108	85	69	Loads and deflections given in this table are theoretical, and are based on a unit stress of 12,000 psi				
						D	0.121	0.237	0.342	0.465	0.608	0.770	0.950					
						C	435	348	290	248	217	193	174					
						D	0.121	0.190	0.273	0.371	0.485	0.614	0.760					
1"	49	0.416 0.241	2.6	2.2	2.4	U	833	533	370	272	208	164	133	110	92	U = safe uniform load in pounds/sq. ft. C = safe concentrated load in pounds/ft. of grating width D = deflection in inches		
						D	0.124	0.193	0.279	0.380	0.496	0.628	0.775	0.938	1.117			
						C	833	666	555	476	416	370	333	302	277			
						D	0.099	0.155	0.223	0.304	0.396	0.502	0.620	0.748	0.891			
1-1/4"	58	0.732 0.491	3.2	2.8	3.0	U	1,464	936	650	478	366	289	234	193	162	138	119	91
						D	0.107	0.167	0.241	0.328	0.428	0.542	0.669	0.810	0.964	1.131	1.312	1.714
						C	1,464	1,171	976	836	732	650	585	532	488	450	418	366
						D	0.085	0.133	0.192	0.262	0.342	0.433	0.535	0.647	0.771	0.904	1.049	1.371
1-1/2"	67	1.083 0.861	3.8	3.4	3.6	U	2,167	1,387	963	707	541	428	346	286	240	205	176	135
						D	0.090	0.141	0.203	0.277	0.362	0.458	0.566	0.684	0.815	0.956	1.109	1.449
						C	2,167	1,734	1,445	1,238	1,083	963	867	788	722	666	619	541
						D	0.072	0.113	0.163	0.221	0.289	0.366	0.452	0.547	0.651	0.764	0.887	1.157
1-3/4"	75	1.496 1.367	4.4	4.0	4.2	U	2,992	1,915	1,330	977	748	591	478	395	332	283	244	187
						D	0.078	0.123	0.177	0.241	0.315	0.398	0.492	0.595	0.708	0.832	0.964	1.260
						C	2,992	2,394	1,995	1,710	1,496	1,330	1,197	1,088	997	920	855	748
						D	0.062	0.098	0.141	0.192	0.251	0.318	0.393	0.476	0.566	0.664	0.771	1.007
2"	83	1.987 2.063	4.9	4.5	4.7	U	3,975	2,544	1,766	1,298	993	785	636	525	441	376	324	248
						D	0.069	0.108	0.156	0.212	0.277	0.351	0.433	0.524	0.624	0.732	0.849	1.109
						C	3,975	3,180	2,650	2,271	1,987	1,766	1,590	1,445	1,325	1,223	1,135	993
						D	0.055	0.086	0.124	0.169	0.221	0.280	0.346	0.419	0.499	0.586	0.679	0.887
2-1/4"	91	2.554 3.004	5.5	5.0	5.3	U	5,109	3,270	2,270	1,668	1,277	1,009	817	675	567	483	417	319
						D	0.061	0.095	0.137	0.187	0.244	0.309	0.382	0.462	0.550	0.646	0.749	0.979
						C	5,109	4,087	3,406	2,919	2,554	2,270	2,043	1,858	1,703	1,572	1,459	1,277
						D	0.048	0.076	0.110	0.149	0.195	0.247	0.305	0.370	0.440	0.517	0.599	0.783
2-1/2"	97	2.985 3.887	5.9	5.5	5.7	U	5,971	3,821	2,654	1,949	1,492	1,179	955	789	663	565	487	373
						D	0.055	0.086	0.124	0.169	0.221	0.279	0.345	0.418	0.497	0.584	0.677	0.884
						C	5,971	4,777	3,981	3,412	2,985	2,654	2,388	2,171	1,990	1,837	1,706	1,492
						D	0.044	0.069	0.099	0.135	0.176	0.223	0.276	0.334	0.398	0.467	0.541	0.707

Note: Grating for spans to the left of the heavy line have a deflection of less than 1/4" for uniform loads of 100 lbs./sq. ft. This is the maximum deflection to afford pedestrian comfort and can be exceeded for other types of load at the discretion of the specifying authority. The actual Ped (pedestrian) Span under this condition is shown above for each size grating. This grating conforms to MIL-G-18015 (SHIPS).

LIGHT SERIES LOAD TABLE

Plank Depth	Sect. Prop.* Sx, in ³ Ix, in ⁴	Weight Per Sq. Ft.			Clear Span						
		Un-Punched	Rect. Punched	Square Punched	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	
1"	0.273 0.173	2.1	1.7	1.9	U	546	349	242	178	136	107
					D	0.113	0.177	0.254	0.347	0.452	0.570
					C	546	436	364	312	273	242
					D	0.090	0.141	0.204	0.278	0.363	0.458

PANEL WIDTH CHART

	1-1/2"	2-11/16"	3-7/8"	5-1/8"
6"	7-1/2"	8-11/16"	9-7/8"	11-1/8"
12"	13-1/2"	14-11/16"	15-7/8"	17-1/8"
18"	19-1/2"	20-11/16"	21-7/8"	23-1/8"
24"	25-1/2"	26-11/16"	27-7/8"	29-1/8"
30"	31-1/2"	32-11/16"	33-7/8"	35-1/8"
36"	37-1/2"	38-11/16"	39-7/8"	41-1/8"

% OPEN AREA*

Rectangular	37%
Square	23%

* Based on punched plank