

# ALUMINUM PLANK

## PANEL WIDTHS AND LOAD CHARTS

### HEAVY DUTY

Plank Size, Inches	Ped Span, Inches	Sec. Prop Sx*, in <sup>3</sup> Ix*, in <sup>4</sup>	Weight Per Sq. Ft.			ClearSpan														
			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	2.2	1.8	2.0	U	435	278	193	142	108	85	69	U - Safe uniform load in pounds/sq. ft. C - Safe concentrated load in pounds/ft. grating width D - Deflection in inches						
						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	2.6	2.2	2.4	U	833	533	370	272	208	164	133	110	92	Loads and deflections given in this table are theoretical, and are based on a unit stress of 12,000 psi.				
						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	3.2	2.8	3.0	U	1464	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				1464	1171	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	3.8	3.4	3.6	U	2167	1387	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				2167	1734	1445	1238	1083	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	4.4	4.0	4.2	U	2992	1915	1330	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				2992	2394	1995	1710	1496	1330	1197	1088	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	4.9	4.5	4.7	U	3975	2544	1766	1298	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				3975	3180	2650	2271	1987	1766	1590	1445	1325	1223	1135	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	5.5	5.0	5.3	U	5109	3270	2270	1668	1277	1009	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				5109	4087	3406	2919	2554	2270	2043	1858	1703	1572	1459	1277			
						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	5.9	5.5	5.7	U	5971	3821	2654	1949	1492	1179	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				5971	4777	3981	3412	2985	2654	2388	2171	1990	1837	1706	1492			
						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		

\*Based on punched plank

### LIGHT SERIES

Plank Size, Inches	Sec. Prop Sx*, in <sup>3</sup> Ix*, in <sup>4</sup>	Weight Per Sq. In.			ClearSpan						
		Non Punched	Rect. Punched	Square Punched	2'- 0"	2'- 6"	3'- 0"	3'- 6"	4'- 0"	4'- 6"	
1	0.273	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

Note: Grating for spans to the left of the heavy line have a deflection 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 engineer. The actual Ped (pedestrian) Span under this condition is shown above for each size of grating. This grating conforms to MIL-G-18015 (SHIPS).

Panel Width Chart (in.)				
	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
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### REEFER

Plank Size, Inches	Sec. Prop Sx*, in <sup>3</sup> Ix*, in <sup>4</sup>	ClearSpan						
		2'- 0"	2'- 6"	3'- 0"	3'- 6"	4'- 0"	4'- 6"	
1	0.384	U	768	491	341	250	192	151
		D	0.130	0.203	0.292	0.397	0.521	0.656
	C	768	614	512	438	304	341	
		D	0.104	0.163	0.235	0.319	0.417	0.528

Note: Grating for spans to the left of the heavy line have a deflection 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 engineer. The actual Ped (pedestrian) Span under this condition is shown above for each size of grating. This grating conforms to MIL-G-18015 (SHIPS).

Weight Per Square Foot, Lbs.				
	SIZE	UNPUNCHED	RECT. PUNCHED	SQUARE PUNCHED
Heavy Duty	3/4"	2.2	1.8	2.0
	1"	2.6	2.2	2.4
	1-1/4"	3.2	2.8	3.0
	1-1/2"	3.8	3.4	3.6
	1-3/4"	4.4	4.0	4.2
	2"	4.9	4.5	4.7
	2-1/4"	5.5	5.0	5.3
Light Series	2-1/2"	5.9	5.5	5.7
	1"	2.1	1.7	1.9
Reefer	SIZE	UNPUNCHED	13/16" DIA. IN-LINE	1" DIA. STAGGERED
	1"	2.8	2.5	2.5