

Aluminum Grating

DUO-GRIP™ EXTRUDED

A Duo-Grip™ grating panel consists of 6" wide planks of extruded aluminum, welded to each other to form panels. Panel ends have an extruded aluminum end bar welded in place. Grating is available unpunched or punched in one of the standard patterns.



Unpunched



Rectangular Punched



Square Punched

TABLE OF SAFE SPANS

Duo-Grip Depth	Symbol	Approx. Weight psf	Per Ft. Of Width Sec. Mod.	Mom. of Int.	SPAN					
					24"	30"	36"	42"	48"	54"
3/4"	DG-075	2.5	0.261	0.136	U 435	278	193	142	109	86
					D 0.115	0.180	0.259	0.353	0.461	0.583
					C 0.435	348	290	249	218	193
					D 0.092	0.144	0.207	0.282	0.368	0.466
1"	DG-100	3.1	0.456	0.309	U 760	486	338	248	190	150
					D 0.089	0.138	0.199	0.271	0.354	0.448
					C 760	608	507	434	380	338
					D 0.071	0.111	0.159	0.217	0.283	0.359
1-1/4"	DG-125	3.6	0.748	0.597	U 1247	798	554	407	312	246
					D 0.075	0.117	0.169	0.230	0.301	0.381
					C 1247	997	831	712	623	554
					D 0.060	0.094	0.135	0.184	0.241	0.304
1-1/2"	DG-150	4.3	1.118	1.053	U 1863	1193	828	608	466	368
					D 0.064	0.100	0.143	0.195	0.255	0.323
					C 1863	1491	1242	1065	932	828
					D 0.051	0.080	0.115	0.156	0.204	0.258
1-3/4"	DG-175	4.6	1.434	1.553	U 2390	1530	1062	780	598	472
					D 0.055	0.087	0.125	0.170	0.222	0.280
					C 2390	1912	1593	1366	1195	1062
					D 0.044	0.069	0.100	0.136	0.177	0.224
2"	DG-200	5.3	2.078	2.461	U 3463	2217	1539	1131	866	684
					D 0.051	0.079	0.114	0.155	0.203	0.256
					C 3463	2771	2309	1979	1732	1539
					D 0.041	0.063	0.091	0.124	0.162	0.205
2-1/4"	DG-225	5.5	2.478	3.277	U 4130	2643	1836	1349	1033	816
					D 0.045	0.071	0.102	0.139	0.181	0.230
					C 4130	3304	2753	2360	2065	1836
					D 0.036	0.057	0.082	0.111	0.145	0.184
2-1/2"	DG-250	5.7	2.901	4.232	U 4835	3094	2149	1579	1209	955
					D 0.041	0.064	0.093	0.126	0.165	0.208
					C 4835	3868	3223	2763	2418	2149
					D 0.033	0.051	0.074	0.101	0.132	0.167

U = safe uniform load, psf

C = safe concentrated load, psf

D = deflection, inches

E = modulus of elasticity, 10,000,000 psi

F = fiber stress, 10,000 psi

Material: ASTM B-221—DUO-GRIP and banding shall be extruded aluminum alloy 6063-T6

Deflection: Spans and loads to the right of the bold line exceed 1/4" deflection for uniform load of 100 psf which provides safe pedestrian comfort. These can be exceeded for other types of loads with engineer's approval.

General: Loads and deflections are theoretical and based on static loading.

Finish: Mill finish unless otherwise specified.

Duo-Grip™ Planking, a one-piece extruded 26' long plank (standard), is available only from AMICO and has an exceptional strength and stiffness-to-weight ratio due to its integral I-beam ribs. It is available in either unpunched, square punched or rectangular punched styles to suit lighting and ventilation considerations. The 6" wide panels are welded together to form the desired panel width and an extruded aluminum end bar is welded into place. The design provides a surer walking surface for additional safety.

Stair Treads

ALUMINUM/DUO-GRIP™



Duo-Grip™ (DG) Punched



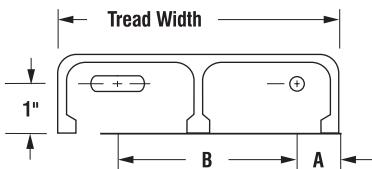
Duo-Grip™ (DG) Unpunched

TREAD APPLICATIONS

Tread Widths	Maximum Tread Length	A	B	Wt. Unpunched
3" x 1-3/4"	4'-3"	3/4"	1-1/4"	.10 pli
4" x 1-3/4"	5'-0"	3/4"	2-1/4"	.15 pli
6" x 1-3/4"	5'-5"	1-1/2"	3"	.18 pli
9" x 1-3/4"	5'-6"	1-1/2"	6"	.26 pli

Maximum tread length based on 300 lb concentrated load on entire tread at center of tread length and deflection limitation of 1/240 of length.

END PLATE DIMENSIONS



LOAD TABLE (plf)

Tread Width	Span (ft)							
	12"	18"	24"	30"	36"	42"	48"	54"
3"	2633	1170	658	421	293	215	165	130
4"	3346	1487	837	535	372	273	209	165
6"	3558	1581	890	569	395	290	222	176
9"	4419	1964	1105	707	491	361	276	218

PHYSICAL PROPERTIES

Section View	Symbol	Size	Weight (extrusion only)	Section Properties	
				Section Modulus (in³)	Moment of Inertia (in⁴)
	DG-3175	3" x 1-3/4"	1.195 plf	.3949	.4323
	DG-4175	4" x 1-3/4"	1.696 plf	.5019	.5579
	DG-6175	6" x 1-3/4"	2.041 plf	.5337	.6532
	DG-9175	9" x 1-3/4"	2.892 plf	.6629	.8445