



THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

SPECIALTY MATERIALS COMPARATIVE DATA SHEET

Product Grades			TGC	Angles & Channels GPO-3	GPO-3	N220	G-7	G-9	G-10	G-11	G-12	G-15	FR4	Arboron	Polycarbonate GP	Polycarbonate V-0	PolyPro FR	PET Electrical Grade	PolyPro EV	Propellis	G-Flex EV200FB	G-Flex YT510	Mica P		
			NEMA	--	GPO-3	GPO-1	G-7	G-9	G-10	G-11		--	FR4	--	--	--	--	--	--	--	--	--	--	--	--
			IEC	--	UPGM 203	UPGM 201	SIGC 201	MFGC 201	EPGC 201	EPGC 203		--	EPGC 202	--	--	--	--	--	--	--	--	--	--	--	--
Materials of Construction			Glass Polyester	Glass Polyester	High-Temp Glass Polyester	High-Temp Glass Silicone	Glass Melamine	Glass Epoxy	High-Temp Glass Epoxy	Glass Epoxy	Glass Polyimide	Flame Retardant Glass Epoxy	Paper Phenolic with Melamine Face	Thermoplastic	Flame Retardant Thermoplastic	Flame Retardant Thermoplastic	Polyester Film	Polypropylene based insulating film	Woven glass fabric with high temperature epoxy	Para-Aramid Flame Barrier	Meta-Aramid Paper	Silicone Bonded Mica Paper Laminate			
Standard Sizes - other sizes available at request			in.	120" Long	36" x 72" 48" x 96"	36" x 72" 48" x 96"	36" x 48" 48" x 96" 48" x 120"	36" x 48" 48" x 96" 48" x 110"	36" x 48" 48" x 96" 48" x 120"	36" x 48" 48" x 96" 48" x 120"	48" x 48" 48" x 96"	36" x 48" 48" x 96" 48" x 120"	48" x 96" 60" x 120" 60" x 144"	36" x 72" 48" x 96"	48" x 96" 76" x 96"	24" wide rolls 48" x 96"	Rolls slit to width	48" rolls	36" - 50" rolls	39.37" & 78.74" rolls	0	48" x 120"			
			cm.	305 cm Long	91 x 183, 122 x 244	91 x 183, 122 x 244	91 x 122, 122 x 244, 122 x 305	91 x 122, 122 x 244, 122 x 279	91 x 122, 122 x 244, 122 x 305	91 x 122, 122 x 244, 122 x 305	91 x 122, 122 x 244, 122 x 305	122 x 122, 122 x 244	91 x 122, 122 x 244, 122 x 305	122 x 244, 152 x 305, 152 x 366	91 x 183, 122 x 244	122 x 244, 193 x 244	61 wide rolls 122 x 244	Rolls slit to width	122 cm rolls	91 - 127 cm rolls	100 & 200 cm rolls	0	122 x 305		
Standard Thickness Range			in.	0.125" - 0.375"	0.094" - 2.00"	0.031" - 2.00"	0.125" - 6.00"	0.008" - 6.00"	0.006" - 6.00"	0.010" - 6.00"	0.010" - 5.00"	0.016" - 3.50"	0.010" - 6.00"	0.125" - 1.00"	0.031" - 0.50"	0.031" - 0.50"	0.010" - 0.125"	0.005" - 0.014"	0.005" - 0.030"	0.005" - 0.013"	0.020" - 0.035"	0.002" - 0.03"	0.004" - 3"		
			cm.	0.318 cm - 0.953 cm	0.239 cm - 5.082 cm	0.079 cm - 5.082 cm	0.318 cm - 15.246 cm	0.020 cm - 15.246 cm	0.015 cm - 15.246 cm	0.025 cm - 15.246 cm	0.025 cm - 12.705 cm	0.41 cm - 88.9 cm	0.025 cm - 15.246 cm	0.318 cm - 2.541 cm	0.079 cm - 1.271 cm	0.079 cm - 1.271 cm	0.025 cm - 0.318 cm	0.013 cm - 0.036 cm	0.013 cm - 0.076 cm	0.013 cm - 0.033 cm	0.05 cm - 0.09 cm	0.005 cm - 0.076 cm	0.01 cm - 7.6 cm		
Mechanical Properties			Test Method	Units																					
Rockwell Hardness			ASTM D-785	M scale	100	100	100	100	115	98	115	--	117	98	113	100	70	--	--	92	--	--	--		
Tensile Strength			LW	ASTM D-638	ksi	12.5	9	11	--	44	43	34	41	--	40	22	9.5	9.5	4.4	2	5.2	21	21	0.06	16
			CW	ASTM D-638	ksi	--	--	--	--	34	39	--	--	--	32	14	9.5	9.5	4.4	2	--	15	--	0.02	--
Compressive Strength			ASTM D-695	ksi	29.5	33	32	45	70	44	50	70	> 60	66	45	12.5	12.5	--	--	6	15	48.6	--	48	
Flexural Strength			LW	ASTM D-790	ksi	25	23	21	18	61	80	71	80	> 60	65	30	13.5	13.5	5.9	--	7	--	51.1	--	24.1
			CW	ASTM D-790	ksi	--	20	--	15	51	70	61	70	> 60	52	24	13.5	13.5	5.9	--	--	--	51.1	--	--
Shear Strength			ASTM D-732	ksi	--	14	12	--	18	19	21	--	--	21.5	13	10	10	--	--	--	--	7.1	--	--	
Izod Impact Strength LW			ASTM D-256	ft-lb/in	9.6	9	11	17	12.5	15	18	11	> 17	7.9	0.5	15	2.4	1.2	--	1.9	--	--	--	--	
Bonding Strength			ASTM D-229	ksi	--	1.4	1.2	0.75	1.9	2.3	2.2	2.2	--	2.3	0.66	--	--	--	--	--	--	--	--	--	
Electrical Properties			Test Method	Units																					
Arc Resistance			ASTM D-495	Sec	>180	190	180	200	185	130	185	--	> 180	130	88	--	--	--	--	160	--	--	--	≥420	
Dielectric Strength			ASTM D-149	VPM	225	450	550	350	540	485	610	485	> 450	800	129	400	400	2200	--	2000	1000	--	406	625	
Breakdown Voltage			ASTM D-149	kV	45	45	50	55	65	50	65	>50	65	66	60	--	--	22	7.5	20	7.1	--	0.81	--	
Comparative Tracking Index			UL-746	V	>600	>600	>600	--	>400	>200	>200	180	--	>230	>600	--	>175	>600	2	--	--	--	--	--	
Physical Properties			Test Method	Units																					
Water Absorption			ASTM D-570	%	0.25	0.25	0.25	0.19	0.6	0.02	0.1	0.01	< 0.6	0.1	0.9	0.15	0.15	0.01	0.6	0.01	--	--	--	< 1	
Specific Gravity			ASTM D-792	g/cc	1.8	1.8	1.7	1.88	1.85	1.77	1.91	1.9	1.81	1.8	1.39	1.2	1.2	1.035	1.4	0.91	1.36	0.0007	0.028	2.13	
Thermal Properties			Test Method	Units																					
Relative Temp. Index			Electric	UL-746B	°C	130	130	220	170	50	130	170	--	--	130	95	125	125	110	140	110	155	>1000	210	--
			Mechanical	UL-746B	°C	130	130	210	220	140	140	180	--	--	140	95	125	125	110	120	110	155	--	--	--
Flame Resistance			UL94	--	V-0	V-0	HB	V-0	V-0	HB	HB	V-0	HB	V-0	V-0	V-2	V-0	V-0	VTM-2	HB	HB	V-0	VTM-0	V-0	
Thermal Class			NEMA	--	B	B	R	F	B	B	F	--	--	B	--	A	A	A	A	--	--	--	--	--	

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