



THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

GENERATOR MATERIAL COMPARATIVE DATA SHEET

Product Grades	TGC	C109	C209	Formed G-11	G-10	G-11H	LSBC	N155	PTFE G-11	Rotoguard TIB	Rotoguard Glass Epoxy TI	Side Ripple	Top Ripple	U205	VARTIM VIL 130/155	Rotoguard Slot Armor
	NEMA			G-11	G-10	G-11		GPO-1	G-11						GPO-1	-
	IEC		EPGC 202	EPGC 203	EPGC 201	EPGC 201	EPGC 203			UPGM 201					UPGM 201/EPGM 203	-
Construction		Semi-Conductive Glass Laminate	Semi-Conductive Glass Epoxy	Glass Epoxy	Glass Epoxy	Glass Epoxy	High Strength Low Shrink Black Canvas Phenolic	High-Temp Glass Polyester	High-Pressure Glass Laminate	--	Single Layer Woven Glass Fabric	Semi-Conductive Glass Fiber	Glass Fiber	Glass Polyester	Custom Molded Composite Material	
Standard Thickness Available	in	0.020 - 0.500	0.008 - 0.500	0.031 0.047 0.062 0.084 0.098 0.125	0.006 - 5.000	0.010 - 5	0.125 - 2.500	0.031 - 2.000 0.118 - 1.500	0.010 - 4.000	0.005 0.007 0.010 0.013	5 Mil 7 Mil 10 Mil 13 Mil	0.012 0.020 0.026 0.032 0.037 0.039	0.030	0.030 0.350	0.118 - 2.362	0.062 - 2.000
	cm	0.051 - 1.270	0.020 - 1.270	0.079 0.119 0.157 0.213 0.249 0.318	0.015 - 12.700	0.025 - 12.70	0.318 - 6.350	0.079 - 5.080 0.300 - 3.810	0.025 - 10.160	0.013 - 0.018 0.025 - 0.033	0.13 mm 0.18 mm 0.25 mm 0.33 mm	0.030 0.051 0.066 0.081 0.094 0.099	0.13 mm 0.18 mm 0.25 mm 0.33 mm	0.076 0.889	0.300 - 5.999	0.318 - 6.350
Rockwell Hardness	M Scale	--	--	--	98	110	105	--	--	--	--	--	--	--	--	--
Tensile Strength, Lengthwise and Crosswise	LW	17	35	40	--	42	10	12	34	--	(5 Mil) 800	--	--	--	21.76	>30 >35
	CW	--	--	--	--	--	12	--	--	--	(5 Mil) 500	--	--	--	--	--
Compressive Strength	ksi	42	58	50	--	70	37	40	73	--	--	--	--	--	59.47	>45 >50
Flexural Strength, Lengthwise and Crosswise	LW	30	57	54	63	80	20	26	58	--	--	--	--	--	37.7	>41 >45
	CW	33	80	44	54	70	12	22	3.1	--	--	--	--	--	--	--
Shear Strength	ksi	17	21	--	25	19	--	--	--	--	--	--	--	--	--	--
IZOD Impact Strength, LW	ft-lbs./in. ²	14	13	10	8.4 ¹	11	2	10	--	--	--	--	--	--	54.72	-- --
Bonding Strength	lbs.	850	920	1950	2300	2200	2000	--	--	--	--	--	--	--	--	--
Electrical Properties	Units															
Arc Resistance	Seconds	--	--	185	130	--	--	150	--	--	--	--	--	--	>130	>130
Dielectric Strength	V/mil	--	--	65	485	485	--	450	180	--	(5 Mil) 270	--	--	--	13000	450 450
Breakdown Voltage	kV	--	--	--	47 ²	>50	--	30	--	--	--	--	--	--	38	>45 >45
Surface Resistivity	Ohms/Sq.	--	--	--	200	180	--	--	--	--	>10000	--	--	--	--	--
Physical Properties	Units															
Water Absorption	%	--	--	0.09	0.13	0.01	2	0.25	0.5	--	--	--	--	--	0.025	0.025
Specific Gravity	lbs/in. ³	0.54	0.30	0.69	0.67	0.69	--	0.66	0.69	--	--	0.65	0.65	0.69	0.63	0.64
Thermal Properties	Units															
Relative Temperature Index	°F	356	356	356	--	130	266	311	356	--	311	311	311	--	266	311
Flame Resistance	Class	--	--	--	UL 94 HB	UL 94 HB	UL 94 V-0	UL 94 V-0	--	--	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 HB	
Thermal Class	Class	--	--	--	--	HB	B	F	--	--	F	F	--	--	--	--

¹ : Material Property Cond. D48/50 at 3 mm Notched

² : Material Property Cond. A at 3 mm

Contact our Generator team for additional information on our Rotoguard family of products at Generators@thegundcompany.com