



# 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 0.350	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	0.076 0.889	0.300 - 5.999	0.318 - 6.350	
Rockwell Hardness		M Scale	--	--	--	98	110	105	--	--	--	--	--	--	--	--	
Tensile Strength, Lengthwise and Crosswise	LW	ksi	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	ksi	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. <sup>2</sup>	14	13	10	8.4 <sup>1</sup>	11	2	10	--	--	--	--	--	54.72	--	--
Bonding Strength		lbs.	850	920	1950	2300	2200	2000	--	--	--	--	--	--	--	--	--
Electrical Properties		Units															
Arc Resistance		Seconds	--	--	185	130	--	--	150	--	--	--	--	--	--	--	>130
Dielectric Strength		V/mil	--	--	65	485	485	--	450	180	--	(5 Mil) 270	--	--	13000	450	450
Breakdown Voltage		kV	--	--	--	47 <sup>2</sup>	>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 <sup>3</sup>	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 Temprature 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 HB	
Thermal Class		Class	--	--	--	--	HB	B	F	--	--	--	F	F	--	--	

<sup>1</sup> : Material Property Cond. D48/50 at 3 mm Notched  
<sup>2</sup> : Material Property Cond. A at 3 mm

Data supplied above are typical values and are not to be considered specification values. All of the information, suggestions and recommendations pertaining to the properties and uses of the products herein are based upon tests and data believed to be accurate; however, the final determination regarding suitability of any material described herein for the contemplated application, the manner of such use, and whether the use infringes any patents is the sole responsibility of the user. There is no warranty, expressed or implied, including, without limitation warranty of merchantability or fitness for a particular purpose. Under no circumstances shall we be liable for incidental or consequential loss or damage.

Contact our Generator team for additional information on our Rotoguard family of products at [Generators@thegundcompany.com](mailto:Generators@thegundcompany.com)