



# THE GUND COMPANY

Manufacturers & fabricators of engineered material solutions

<b>Item:</b>	<b>APO-3 Glass Polyester Laminate</b>		
<b>Description:</b>	APO-3 is a track and flame resistant grade GPO-3. This UL recognized product (QMTS2.E75481) provides V-0 flame resistance in thinner thicknesses.		
<b>Standards:</b>	NEMA LI-1: GPO-3 MIL-24768/6		IEC 60893: UPGM 203
<b>Availability:</b>			English Units (in)
	Laminate Sheets:	Thickness:	0.031" – 0.094"
		Sheet Sizes:	36" x 72", 48" x 96"
	Fabricated Parts:	The Gund Company custom fabricates insulation materials to the exact specifications and drawings of our customers.	
			SI Units
			0.8 mm – 2.39 mm
			91 cm x 182 cm, 121 cm x 244 cm

Key Characteristics	Test Method	Units - English (SI)	NEMA Standard	Typical Values
Standard Color	--	--	--	Red
Density	--	lb/in <sup>3</sup> (g/cc)	N/A	0.065(1.8)
Water Absorption (1/16" thick)	ASTM D-570	%	0.60	0.55
Tensile Strength	ASTM D-638	psi (MPa)	8,000 (55)	9,000 (62)
Compressive Strength (flatwise)	ASTM D-695	psi (MPa)	30,000 (206)	33,000 (228)
Flexural Strength	ASTM D-790	psi (MPa)	18,000 (124)	22,000 (152)
Shear Strength	ASTM D-732	psi (MPa)	N/A	12,500 (86)
Bond Strength	ASTM D-229(A)	lbf (kgf)	850 (385)	1,080 (490)
Thermal Class	--	--	--	Class B (130°C)
Flammability	UL 94	--	V-0	V-0
IZOD Impact Strength (Edgewise)	ASTM D-256	ft-lbs/in	8	9
Arc Resistance	ASTM D-495	Seconds	150	192
Dielectric Strength (1/16" Perpendicular in oil)	ASTM D-149 (A-short)	V/mil (kV/mm)	300 (11.8)	540 (21.3)
Breakdown Voltage (Parallel Pin, in oil)	ASTM D-149 (A-stopped)	kV	40	50

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 use contemplated, 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. TGC0121