



THE GUND COMPANY

Manufacturers & fabricators of engineered material solutions

Item:	NEMA Grade GPO-1 (N180 Glass Polyester Laminate)		
Description:	<p>Grade N180 is a class H (180°C) glass mat reinforced polyester material designed for applications where high compressive and flexural strength are combined with high temperature resistance.</p> <p>Grade N180 has been designed for applications including electric motor slot topsticks, D.C. motor pole collars, hydro generator pole collars, rotating equipment slot filler, rotor pole blocking, lead and cable clamps, and related applications.</p>		
Standards:	NEMA LI-1: GPO-1 - IEC 60893: UPGM 201		
Availability:		English Units (in)	SI Units (mm)
	Laminate Sheets:	Sheet Size:	36 x 72 48 x 96
		Thickness:	0.031 - 2.0000 0.118 - 1.500
	Fabricated Parts:	The Gund Company custom fabricates insulation materials to the exact specifications and drawings of our customers.	

Key Characteristics	Test Method	Units - English (SI)	Typical Values
Standard Color	--	--	Black
Density	--	lbs./in (g/cc)	0.069 (1.91)
Water Absorption (.125")	ASTM D-570	%	0.25
Tensile Strength	ASTM D-638	psi (MPa)	16,000 (110)
Compressive Strength, Flatwise	ASTM D-695	psi (MPa)	46,000 (317)
Flexural Strength Lengthwise Crosswise	ASTM D-790	psi (MPa)	29,000 (200) 32,000 (221)
Shear Strength	ASTM D-732	psi (MPa)	18,000 (124)
IZOD Impact Strength, Edgewise	ASTM D-256	ft.-lbs./in.	12
Arc Resistance	ASTM D-495	Seconds	180
Dielectric Strength <small>Perpendicular in Oil (.0625")</small>	ASTM D-149	V/mil (kV/mm)	500 (19.7)
Breakdown Voltage <small>Parallel Pin, in Oil</small>	ASTM D-149	kV	45
Thermal Class	--	--	Class H (180°C)