



MANUFACTURERS OF  
ELECTRICAL INSULATION MATERIALS

INSULATING COMPONENTS FOR  
POWER SYSTEMS EQUIPMENT

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## MATERIAL DATA SHEET

**Item:** NEMA Grade GPO-2, NOHL Grade APO-2, Glass Polyester Laminate Sheet

**Description:** NOHL Grade APO-2 is a flame resistant NEMA Grade GPO-2 glass polyester laminate. This UL recognized product (QMTS2.E75481) provides V-0 flame resistance.

<b>Availability:</b>	Laminate Sheets:	Thickness:	English Units 0.031" to 2.0"	SI Units 0.8 mm to 50.8 mm
		Sheet Sizes:	36" x 72", 48" x 96"	92 cm x 183 cm, 122 cm x 244 cm

**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)	NEMA Standard	Typical Values
Standard Color	--	--	--	Red
Density	--	lbs./in <sup>3</sup> (g/cc)	--	0.065 (1.81)
Water Absorption (.125")	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)	37,000 (255)
Flexural Strength, Lengthwise	ASTM D-790	psi (MPa)	18,000 (124)	22,000 (152)
Bond Strength (.50")	ASTM D-229	lbs. (kg)	850 (385)	1,080 (490)
Shear Strength	ASTM D-732	psi (MPa)	--	12,500 (86)
Izod Impact Strength, Edgewise	ASTM D-256	ft.-lbs./in.	8.0	9.0
Arc Resistance	ASTM D-495	Seconds	150	192
Dielectric Strength, Perp., In Oil (.0625")	ASTM D-149	V/mil (kV/mm)	300 (11.8)	540 (21.3)
Breakdown Voltage, Parallel Pin, In Oil	ASTM D-149	kV	40	50
Flammability	UL 94	Class	V-0	V-0

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 the 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.