



MANUFACTURERS OF
ELECTRICAL INSULATION MATERIALS

INSULATING COMPONENTS FOR
POWER SYSTEMS EQUIPMENT

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MATERIAL DATA SHEET

Item: NEMA Grade GPO-1, Grade APO-1, Glass Polyester Laminate Sheet (130°C)

Description: NEMA Grade GPO-1 grades of low-pressure glass polyester laminate are made from fiberglass mat reinforced polyester composite. NEMA Grade GPO-1 is a Class B (130°C) material.

Standards: NEMA LI-1 GPO-1
IEC 60893 UPGM 201

Availability: 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	--	--		Brown
Density	--	lbs./in ³ (g/cc)	--	0.066 (1.83)
Water Absorption (.125")	ASTM D-570	%	0.7	0.25
Tensile Strength	ASTM D-638	psi (MPa)	8,000 (55)	9,500 (66)
Compressive Strength, Flatwise	ASTM D-695	psi (MPa)	30,000 (206)	35,000 (241)
Flexural Strength, Lengthwise	ASTM D-790	psi (MPa)	18,000 (124)	20,000 (138)
Bond Strength (.50")	ASTM D-229	lbs. (kg)	850 (385)	1,200 (544)
Shear Strength	ASTM D-732	psi (MPa)	--	16,000 (110)
UL File Number	--	--	--	E323105
Izod Impact Strength, Edgewise	ASTM D-256	ft.-lbs./in.	8.0	8.5
Arc Resistance	ASTM D-495	Seconds	100	130
Dielectric Strength, Perp., In Oil (.0625")	ASTM D-149	V/mil (kV/mm)	300 (11.8)	450 (17.6)
Breakdown Voltage, Parallel Pin, In Oil	ASTM D-149	kV	40	> 40
Thermal Class	--	--	--	Class B - 130°C
Flammability	UL 94	Class	HB	HB

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