



THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

N180

Class H - NEMA Grade GPO-1 Glass Polyester Laminate

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. 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.

STANDARDS: NEMA IM 60000: GPO-1 • IEC 60893: UPGM 201

The Gund Company custom fabricates insulation materials to the exact specifications and drawings specified by our customers. We offer our customers the proper product for their specific application. A variety of dimensions and diameter sizes are available. Product colors vary according to material type.

ASTM				
PROPERTIES		Test Method	Units (SI)	Typical Values
PHYSICAL	Standard Color			Black
	Density		lbs/in ³ (g/cc)	0.069 (1.91)
	Water Absorption (0.125")	ASTM D570	%	0.25
THERMAL	Thermal Class			Class H / 180°C
MECHANICAL	Tensile Strength	ASTM D638	PSI (MPa)	16,000 (110)
	Compressive Strength	ASTM D695	PSI (MPa)	46,000 (317)
	Flexural Strength: Lengthwise	ASTM D790	PSI (MPa)	29,000 (200)
	Flexural Strength: Crosswise	ASTM D790	PSI (MPa)	32,000 (221)
	Shear Strength	ASTM D732	PSI (MPa)	18,000 (124)
	IZOD Impact Strength: Edgewise	ASTM D256	ft-lbs/in	12
	Minimum Burst Strength (TUBE)*	ASTM D1180-57	PSI (MPa)	1,200 (8.3)
ELECTRICAL	Arc Resistance	ASTM D495	Seconds	180
	Dielectric Strength: Perpendicular in Oil (0.0625")	ASTM D149	V/mil (kV/mm)	500 (19.7)
	Breakdown Voltage: Parallel in Oil	ASTM D149	kV	45

*Tube construction can be optimized to meet specific Burst Strength requirements

LAMINATE SHEET AVAILABILITY

THICKNESS

- 0.031" - 2.000"
- 0.118 - 1.500

SHEET SIZE

- 36" x 72"
- 48" x 96"

LAMINATE SHEET AVAILABILITY (SI)

THICKNESS

- 0.75 mm - 1.74 mm
- 0.625 mm - 1.51 mm

SHEET SIZE

- 914 mm x 1,828 mm
- 1,219 mm x 2,438 mm

TUBE SIZE AVAILABILITY

ENGLISH

- 0.75" - 1.74" (OD)
- 0.625" - 1.51" (ID)

SI

- 19.05 mm - 44.19 mm (OD)
- 15.87 mm - 38.35 mm (ID)

The data supplied are typical values. They are not to be considered specification values. All of the information, suggestions, and recommendations about these properties and uses of the products herein are based on tests and data believed to be accurate; however, the final determination regarding the 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, warranties of merchantability or fitness for a particular purpose. Under no circumstances shall we be liable for incidental or consequential loss or damage.



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MARKETS



Switchgear



Electronics



Power Generators



Motor Applications



Transformers



Metals Processing



Electric Vehicles



Military/Aerospace



Oil & Gas



Medical



Space

OUR EXPERTISE IS YOUR COMPETITIVE ADVANTAGE

The Gund Company provides a wide range of material solutions from rigid, glass epoxy composites to high-temperature, silicone sponges.

We take a consultative approach to understanding your application by working with your engineers and buyers to find materials that fit the application. By understanding the most important material properties, we often find cost-reduction opportunities. Our Application Engineering Teams have decades of material experience and look forward to working with you on your upcoming project.

Material Families:

- Thermoset Rigid Laminates and Composites
- Flexible Laminates, Papers, Films, and Felts
- Thermoplastic Materials
- Elastomeric Materials

Our Manufacturing Capabilities Include:

- Compression Molding
- Pultrusion
- Filament & Convoluted Wound Tube
- Infusion & B-Stage Composites Lay-up and Molding
- Injection Molding
- Extrusion of Thermoplastics

Our Engineering Capabilities Include:

- Custom Material Development
- Resin Formulation
- Laboratory Testing
- Comparative Materials Evaluation



THE GUND COMPANY GLOBAL FOOTPRINT – LOCAL SERVICE

