THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

N200F

NEMA Grade GPO-1 Flexible Glass Polyester Laminate

Grade N200F is designed as a cost-effective alternative to Aramid Paper in 220°C insulation systems, including layer and core insulation for dry-type transformers. It is a flexible, high-temperature glass-mat, reinforced polyester (190°C at 1/32", 200°C at 1/16") designed for applications where high flexibility and excellent dielectric strength are necessary. Test data has shown that N200F can be applied in areas with at least a bend radius of 2" (5 cm) without having significant effects on dielectric properties.

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.

	PROPERTIES	ASTM Test Method	Units (SI)	Typical Values
PHYSICAL	Standard Color			Natural/Taupe
	Density		lbs/in³ (g/cc)	0.057 (1.57)
	Water Absorption (0.125")	ASTM D570	%	0.31
THERMAL	Thermal Class			200*
MECHANICAL	Tensile Strength	ASTM D638	PSI (MPa)	12,000 (83)
	Compressive Strength: Flatwise	ASTM D695	PSI (MPa)	18,000 (124)
	Flexural Strength: Lengthwise	ASTM D790	PSI (MPa)	20,000 (138)
	Flexural Strength: Crosswise	ASTM D790	PSI (MPa)	23,000 (159)
ELECTRICAL	Arc Resistance	ASTM D495	Seconds	120
	Dielectric Strength: Perpendicular in Oil (0.0625")	ASTM D149 (short)	V/mil (kV/mm)	620 (24.4)

* 190°C is the typical value for materials that are 1/16" and thinner

LAMINATE SHEET AVAILABILITY

THICKNESS	SHEET SIZE
• 0.020" - 0.125"	• 36" x 73" • 49" x 97"

LAMINATE SHEET AVAILABILITY (SI)

THICKNESS	SHEET SIZE
• 0.50 mm - 3.00 mm	• 94 cm x 185 cm • 124 cm x 246 cm

THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

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 Engineering Capabilities Include:

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

Our Manufacturing Capabilities Include:

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

THE GUND COMPANY GLOBAL FOOTPRINT – LOCAL SERVICE