



MANUFACTURERS OF
ELECTRICAL INSULATION MATERIALS

INSULATING COMPONENTS FOR
POWER SYSTEMS EQUIPMENT

The Gund Company, Inc
St. Louis, Missouri – USA

TEL - 314.423.5200
FAX - 314.423.9009

MATERIAL DATA SHEET

Item: Glass Epoxy Filament Wound Tubing

Description: Filament wound glass epoxy tubes are manufactured by winding electrical grade glass filament (Class E) coated with epoxy resin around a mandrel. The mandrel size dictates the inner diameter while the number of turns or windings of glass determines the outer diameter. Filament wound glass tubes offer excellent burst strength. The resin system can also be adjusted to offer a range of properties specific to particular applications.

Availability: 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
Tensile Strength	ASTM D-638	psi (MPa)	13,000 (90)
Compressive Strength	ASTM D-348	psi (MPa)	20,000 (138)
Shear Strength	ASTM D-348	psi (MPa)	7,000 (48)
Barcol Hardness	ASTM D-2593-75	--	50
Density	ASTM D-1505-68	lbs./in. ³ (g/cc)	0.076 (2.1)
Specific Gravity	ASTM D-792	--	2.08
Water Absorption	ASTM D-570	%	0.1 max.
Dielectric Constant	ASTM D-150	--	5.0 max.
High-Current Arc	UL 746A	Seconds	39
High-Voltage Arc Resistance	ASTM D-495	Seconds	130
High-Voltage Arc Tracking	UL 746A	in./minute	0.0
Hot Wire Ignition	UL 746A	Seconds	300+
UL Flammability	UL 746A	HB	94
Heat Distortion	ASTM D-648	°C	125
Glass Transition Temperature	ASTM D-648	°C	125
Electrical Temperature Index	UL 746B	°C	180
Mechanical Temperature Index	UL 746B	°C	190
Dielectric Strength	ASTM D-149	V/mil (kV/mm)	510 (20)
Dissipation Factor	ASTM D-150	--	0.015 max.

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.