



MANUFACTURERS OF
ELECTRICAL INSULATION MATERIALS

INSULATING COMPONENTS FOR
POWER SYSTEMS EQUIPMENT

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MATERIAL DATA SHEET

Item: Grade C-109 Semi-Conductive Glass Reinforced Laminate

Description: C-109 is a semi-conductive glass reinforced laminate that is utilized as side-pack, side insulation in the stator slots of large rotating apparatus. As a semi-conductive material, C-109 provides a pathway to dissipate partial discharge, static charges, flashovers, and therefore preventing the damaging effects of corona discharge.

Availability:	Laminate Sheets:	Thickness:	English Units 0.01" to 0.25"	SI Units 0.254 mm to 6.35 mm
		Sheet Sizes:	37" x 73"	94 cm x 185 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)	Typical Values
Standard Color	--	--	Black
Density	--	lbs./in. ³ (g/cc)	0.054 (1.6)
Water Absorption (.125")	ASTM D-570	%	0.5
Tensile Strength	ASTM D-638	psi (MPa)	15,000 (103)
Compressive Strength	ASTM D-695	psi (MPa)	49,000 (338)
Flexural Strength, LW CW	ASTM D-790	psi (MPa)	30,000 (207) 33,000 (228)
Shear Strength	ASTM D-732	psi (MPa)	15,000 (103)
Relative Temperature Index ¹	UL 746E	°C	180
Izod Impact Strength, Notched	ASTM D-256	ft.-lbs./in.	12
Bond Strength	ASTM D-229	lb. (kg)	850 (386)
Surface Resistivity	ASTM D-257	Ohms/Square	500 - 50,000

¹ Flexural Strength tested for determining mechanical RTI

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