MANUFACTURERS OF
ELECTRICAL INSULATION MATERIALS

INSULATING COMPONENTS FOR POWER SYSTEMS EQUIPMENT

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MATERIAL DATA SHEET

Item: NEMA Grade G-11, Glass Epoxy Laminate Grade MC511AF

Description: NEMA Grade G-11 MC511AF is a high pressure laminate manufactured from a glass cloth substrate impregnated with a high temperature epoxy resin system. This grade meets or exceeds all specifications for NEMA G-11 material.

Standards:

NEMA LI-1	Grade G-11
IEC 60893	EP GC 203
MIL-I-24768	3 GEB

Availability:

		English Units	SI Units
Laminate Sheets:	Thickness:	0.010" - 6.0"	2.54 mm - 15.24 cm
	Sheet Sizes:	48" x 96", 48" x 118"	122 cm x 244 cm, 122 cm x 300 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	--	--	Yellow-Brown
Specific Gravity	--	lb./in.^{3} (g/cc)	0.069 (1.91)
Rockwell Hardness (.125")	--	M Scale	110
Moisture Absorption (.125")	ASTM D-570	%	0.085
Tensile Strength, Lengthwise (.125")	ASTM D-638	psi (MPa)	41,000 (282.5)
Compressive Strength (.125")	ASTM D-695	psi (MPa)	50,000 (344.5)
Flexural Strength, Lengthwise (.125")	ASTM D-790	psi (MPa)	57,000 (392.7)
Shear Strength, Perpendicular (.062")	ASTM D-732	psi (MPa)	21,000 (144.7)
IZOD Impact Strength Lengthwise (.125")	ASTM D-256	ft.-lbs./in. Notched	10.0
Arc Resistance (.125")	ASTM D-495	Seconds	185
Bonding Strength (.50")	ASTM D-229	lb. (kg)	2,200 (1,000)
Temperature Index, Electrical Mechanical	--	°C	170 180
Permittivity (.125")	ASTM D-24/23	--	4.5
Flammability Rating	UL94	Class	HB
Breakdown Voltage (.125")	ASTM D-149	kV	65
Dielectric Strength, Perp. - Short Time (.125")	--	V/mil	550
Volume Resistivity (.125")	--	Mega Ohms/cm	5.0×10^{10}
Surface Resistivity (.125")	--	Mega Ohms	1.5×10^{10}
Tg	--	°C	180

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