



MANUFACTURERS OF  
ELECTRICAL INSULATION MATERIALS

INSULATING COMPONENTS FOR  
POWER SYSTEMS EQUIPMENT

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## MATERIAL DATA SHEET

**Item:** ARBORON (High Arc Resistant Panel Board)

**Description:** ARBORON is a cellulose based quality laminate impregnated with thermosetting resins, consolidated under high pressure and temperature into dense, uniform sheets having good electrical and mechanical properties. ARBORON conforms to NEMA thickness and flatness standards and is listed by Underwriters Laboratories Inc. under Card #E194097.

The superior smooth dense surface of ARBORON provides excellent chemical and abrasion resistance. Its very high strength to weight ratio (one-half of the weight of aluminum) and relative ease of fabrication should make ARBORON your first choice for new designs.

**Availability:** Laminate Sheets: Thickness: English Units: .125", .188", .25", .313", .375", .5", .75", 1", 1.25" SI Units: 3.18 mm, 4.78 mm, 6.35 mm, 7.95 mm, 9.53 mm, 12.7 mm, 19.1 mm, 25.4 mm, 31.75 mm

Sheet Sizes: 48" x 96", 60" x 120", 60" x 144" SI Units: 122 cm x 244 cm, 152 x 305 cm, 152 cm x 366 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. <sup>3</sup> (g/cc)	0.05 (1.38)
Specific Gravity	--	g/cc	1.39
Water Absorption (.125")	ASTM D-570	%	0.9
Tensile Strength	ASTM D-638	psi (MPa)	22,000 (152)
Compressive Strength, Flatwise	ASTM D-695	psi (MPa)	22,700 (157)
Flexural Strength	ASTM D-790	psi (MPa)	23,000 (159)
Bond Strength	ASTM D-790	psi (MPa)	659 (4.54)
Relative Temperature Index	--	°C	95
Flammability Rating (.240)	UL 94	--	V-0
IZOD Impact Strength, Edgewise	ASTM D-256	ft.-lbs./in.	0.6
Arc Resistance (.250")	ASTM D-495	Seconds	135
Dissipation Factor (.250")	ASTM D-150	--	.048
Dielectric Constant (.250")	ASTM D-150	--	5.41
Volume Resistivity	--	MOhm	22
Comparative Track Index	UL	V	600
High Ampere Arc Ignition	UL	--	200+
Hot Wire Ignition	UL	Seconds	107
Dielectric Strength, Perpendicular in Oil (.250")	ASTM D-149	V/mil (kV/mm)	250 (9.75)
Breakdown Voltage, Parallel in Oil (.250")	ASTM D-149	kV	66

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.