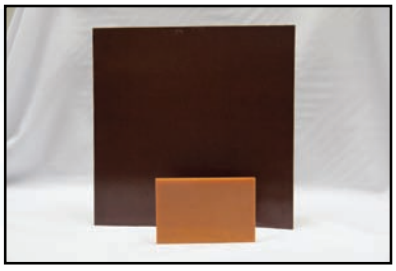
BAKELITE (COTTON & PAPER)

Phenolic Grade Resin – (Cotton & Paper)



NORPLEX-MICARTA

PRODUCT CAPABILITIES:

STOCK SHAPES
· Sheet : 1mm – 35mm

PRODUCT COLORS:

- Brown (Cotton)
- Orange (Paper)

ADVANTAGES:

- Good Moisture resistance
- Easy Machinability
- Both Have Good Electrical Properties
- Not As Abrasive As Fiberglass Alternatives When Used In Wear Applications
- Bakelite Cotton Has A Better Impact Strength Than Bakelite Paper
- Can Be Used In Explosion-Proof Environments
- Bakelite Cotton Complies With The Requirements MIL-I-24768/14, Type FBG.
- Bakelite Paper Complies With The Requirements MIL-I-24768/19, Type PBM-P

APPLICATIONS INCLUDE:

- Gears
- Pulleys
- Rollers
- Guides
- Electrically Insulated Parts, Such As Control Boards
- Switch Bases
- Terminal Boards

GENERAL PROPERTIES		ASTM or UL Test	BAKELITE COTTON Typical Values	BAKELITE PAPER Typical Values
PHYSICAL				
Specific Gravity (g/cm^3)		D792	1.37	1.35
Water Absorption, Immersion, 24 hr (%) (0.0625")		D570	2.0	1.5
MECHANICAL				
Tensile Strength (Mpa) (0.125")	LW / CW	D638	75.8 / 62.1	124.1 / 93.1
Flexural Strength (Mpa) (0.0625")	LW / CW	D790	120.7 / 103.4	199.9 / 151.7
Flexural Modulus (Gpa) (0.0625")	LW / CW	D790	11.0 / 10.3	8.3 / 6.2
Compressive Strength (Mpa) (0.5")	Flatwise	D695	234.4	310.3
Bonding Strength (Kg) (0.5")		D229	771.1	499.0
Shear Strength (Mpa) (0.0625")		D732	96.5	84.1
Izod Impact Strength (ft-lb/in) (0.5")	LW / CW	D256	0.91 / 0.8	0.7 / 0.6
Hardness, Rockwell, Scale M		D785	100	100
THERMAL				
Coeff. of Thermal Expansion ("/"/°Cx10^6) (0.125")		IPC-TM	X-axis (20.0)	X-axis (13.0)
		650-2.4.24	Y-axis (22.0)	Y-axis (17.0)
Maximum Operation Temperature (°C) (0.5")			125	130
Tg by DMA (0.5")		-	-	-
Flammability Rating (0.0625")		UL-94	HB	HB
ELECTRICAL				
Breakdown Voltage (kVolts) (0.0625")		D149	40	50
Electric Strength (kV/cm) (0.0625")		D149	216.5	236.2

NOTE: The information contained here in is typical values intended for reference only. They should NOT be used as a basis for design specifications or quality control.