

# BAKELITE (COTTON & PAPER)

Phenolic Grade Resin – (Cotton & Paper)



## PRODUCT CAPABILITIES:

STOCK SHAPES

· Sheet : 0.5mm - 50mm (3021) 0.5mm - 50mm (3025)

## **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

### PRODUCT COLORS:

Brown (Cotton)

Orange (Paper)

Black (Paper)

### **APPLICATIONS INCLUDE:**

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

GENERAL PROPERTIES	ASTM or UL Test	BAKELITE 3021 (Paper) Typical Values	BAKELITE 3025 (Cotton) Typical Values
PHYSICAL			
Specific Gravity (g/cm³)	D792	1.3 - 1.4	1.3 - 1.4
Water Absorption, Immersion, 24 hr (mg) (1.6mm thickness)	D570	182	220
MECHANICAL			
Tensile Strength (Mpa)	D638	-	-
Flexural Strength (Mpa)	D790	120	100
Flexural Modulus (Gpa)	D790	_	_
Compressive Strength (Mpa)	D695	_	-
Bonding Strength (N)	D229	3,200	-
Shear Strength (Mpa)	D732	_	-
Impact Strength parallel to lamination $(KJ/m^2)$	D256	-	8.8
Hardness, Rockwell, Scale M	D785	-	-
ELECTRICAL			
Breakdown Voltage (kVolts)	D149	_	_
Dielectric Strength perpendicular to lamination at $90 + /-2^{\circ}\text{C}$ in transformer ail, for 1.0mm thickness (MV / m)	D149	12.1	0.82
Dielectric Voltage parallel to lamination at 90 +/-2c in transformer oil, for 1.6mm thickness (KV)	D149	20	1
Dielectric Contant at 1MHz	D149	5.5	_

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.