



FABRIC BAKERLITE

Fabric Bakelite is a rigid, hard wearing material manufactured from phenolic resin with woven cotton cloth layers of reinforcement. This sheet exhibits excellent mechanical strength and physical properties, very good machining characteristics and good resistance to abrasion. Typical uses include the manufacture of wear plates, electrical insulation pads, bushes, bolt sleeves, saw guides, rollers and conveyor wheels. It machines well and can be accurately cut and drilled.

Applications for fabric Bakelite include

Electrical Isolating Bolt Sleeves, Washers and Gaskets • Manufacturing Jigs • Wear Plates • Insulating Pads, Bushes and Spacers, • Gears • Wear Strips and Liners • Rollers • Saw Guides • Pulleys and Conveyor Wheels • Slot Wedges and Packers for Electric Motors • Pump Vanes.

Technical Details

Property	Value
Tensile Strength	63.8 MPa (minimum)
Impact Strength	24.5 KJ/m ²
Flexural Strength	103 MPa (minimum)
Heat Resistance (martens test)	125°C (minimum)
Thread Count	24 per cm
Specific Gravity	1.3 – 1.42
Colour	Natural / Brown
Bond Strength	5390 N (minimum)
Breakdown Strength Perpendicular to Laminations in Transformer Oil (@ 90°C)	
0.5 to 1mm	4 kV/mm
1.1 to 2mm	3 kV/mm
2.1 to 3mm	2 kV/mm



Paper Bakelite P1

Paper Bakelite P1 is a phenolic paper rigid laminate for use as a general purpose mechanical grade material, where electrical properties are secondary. It has the highest mechanical strength of the paper-phenolic materials, but has poor electrical properties under normal humidity. SWITCHBOARD Paper Bakelite P1 RIGID INSULATION FOR MECHANICAL OR LOW VOLTAGE APPLICATIONS

Features

- Excellent mechanical strength
- High impact strength
- Good machinability
- Applications
- Mechanical applications where electrical requirements are secondary
- Low voltage applications
- Suited to dry environments - discretion should be used in high humidity or moisture environments

Technical Data	Units	Value
Density	g/cm ³	1.3 to 1.4
Flexural Strength	MPa	120
Insulation Resistance after impregnation in water (D-24/23)	MΩ	10.0
Dielectric strength at 90±2°C in transformer oil perpendicular to laminations (thickness 1mm)	kV/mm	12.1
Breakdown voltage at 90±2°C in transformer oil parallel to laminations	kV	20
Permittivity (1 MHz)	-	5.5
Dissipation Factor (1 MHz)	-	0.05
Water Absorption (D-24/23, thickness 1.6mm)	mg	230

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