

Phenolic cotton laminate (cotton fabric bonded with phenolic resin, often called fabric Bakelite) is strong, tough and wear-resistant with good machinability. It is used for bearings, bushes, gears and wear pads, especially in wet or lubricated service.

Specification

Material	Cotton fabric phenolic laminate, coarse and fine weave
Reference Standard	EN / IEC 60893-3-4, types PF CC 201 / PF CC 203
Standard Colour	Brown
Forms	Sheets, round rods, tubes; machined parts to drawing
Sheet Thickness	Approx. 0.5 mm to 100 mm
Standard Sheet Size	1000 x 2000 mm, 1020 x 2040 mm, or cut to size

Material Properties (typical values)

Property	Typical Value
Density	1.30 - 1.40 g/cm ³
Flexural strength (perpendicular)	> 100 MPa
Compressive strength (perpendicular)	> 250 MPa
Tensile strength	> 80 MPa
Hardness	Rockwell M 100 - 110
Service temperature	up to +120°C continuous
Water absorption (24 h)	approx. 1 - 2% (depends on thickness)
Coefficient of friction	0.15 - 0.25 (lubricated)
Electrical properties	Moderate; use paper phenolic or glass epoxy for high-voltage duty

Typical Applications

Bearings and bushes (including water-lubricated), gears and pinions, wear pads and slide plates, rollers, thrust washers, spacers and machine parts.

Selection Note

Fine-weave grades give a better machined finish for small or detailed parts; coarse weave has higher impact strength.

How to Order

Send the material, grade, colour, form, dimensions (thickness / diameter, width, length) and quantity, or a drawing for machined parts, to Diode Trading EST at www.diode.sa or +966 51 083 8213. Material test certificates are available on request.

Notice: Values are typical and indicative, based on common industry grades. Exact grade, size, tolerance and performance are confirmed on quotation and against the supplier or manufacturer data and material test certificate for each batch. This sheet is not a warranty. Contact Diode Trading EST to confirm availability and specification for your application.