BAKELITE

Bakelite is a hard, dense material made by applying heat and pressure to layers of paper or glass cloth infused with phenolic resin. These laminated layers are typically composed of cellulose paper, cotton fabrics, synthetic yarn fabrics, glass fabrics, or unwoven fabrics. When heat and pressure are applied, a chemical reaction (polymerisation) transforms the layers into a high-pressure, thermosetting industrial laminated plastic.

MECHANICAL PROPERTIES*	
Tensile strength GB/T 5130	825.97 - 1325.63 kg/cm^2
Adhesive strength GB/T 5130	≥3600 N
Bending strength - Vertical GB/T 5130	≥ 1220 kg/cm^2
Compressive strength - Vertical GB/T 5130	≥2545 kg/cm^2
Hardness - Shore D DIN5505	92
Impact strength GB/ T 5130	≤15 KJ/M^2
Shock resistance GB/T 5130	67 KJ/M

PHYSICAL PROPERTIES*	
Density ISO 1183	1.45 g/cm^3
Water absorption ISO 62	<1.5%
Flammability UL94	HB

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THERMAL PROPERTIES*	
Max service temperature - Short Term GB/T 5130	280 °C
Max service temperature - Long Term GB/T 5130	140 °C
Coefficient of linear thermal expansion GB/T 5130	10 Kx

ELECTRICAL PROPERTIES*	
Surface resistivity GB/T 5130	106-9 Ω
Electric intensity GB/T 5130	12.1 KV/M
Breakdown voltage-parallel GB/T 5130	92

APPLICATIONS

- Chemical machine parts
- General machine parts and gears
- Generators
- Electrical insulation components
- Transformers
- Fixtures
- Inverters
- Motors

*The above product parameters are to be considered typical product parameters and are not intended to be considered product specifications. Tables provided are general and may vary from 3021-TG CH

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