Polyimide Laminate Coil

Polyimide laminate coil offers reinforced thermal stability, dielectric strength, and chemical resistance in roll form for high?voltage insulation, flexible PCBs, heater substrates, and research into hybrid laminates and thermal?cycling performance. **SKU:** 1000008358-group
Product Code: IM30-LM-000122

Material Properties for Polymers

Chemical Resistance

Element	Value
Acids - concentrated	Poor
Acids - dilute	Fair
Alcohols	Poor
Alkalis	Poor
Aromatic hydrocarbons	Good
Greases and Oils	Good
Halogenated Hydrocarbons	Good
Halogens	Fair
Ketones	Good

Mechanical Properties

Element	Value
Coefficient of friction	0.42
Hardness - Rockwell	E52-99
Elongation at break(%)	104-128
Tensile modulus(GPa)	2.0 – 3.0
Izod impact strength(J m?¹)	80
Tensile strength(MPa)	70-295

Electrical Properties

Element	Value
Dielectric constant @1MHz	3.4
Dissipation factor @ 1kHz	0.0018

Element	Value
Dielectric strength(kV mm?¹)	154 – 332
Surface resistivity(Ohm/sq)	10¹?
Volume resistivity(Ohmcm)	10¹?

Physical Properties

Element	Value
Flammability	V0
Radiation resistance	Good
Refractive index	1.66
Resistance to Ultra-violet	Poor
Limiting oxygen index(%)	53
Water absorption - over 24 hours(%)	0.2-2.9
Density(gcm?³)	1.42

Thermal Properties

Element	Value
Heat-deflection temperature - 1.8MPa(C)	360
Lower working temperature(C)	-270
Upper working temperature(C)	250-400
Specific heat(J K?¹ kg?¹)	1090
Thermal conductivity(W m?¹ K?¹)	0.1-0.35@23°C
Coefficient of thermal expansion(x10?? K?¹)	30-60