Polypropylene Film/Sheet

PP film (BOPP up to 300 MPa, -50-120°C) for food/pharma packaging laminates, capacitor dielectrics, battery separators & sterilisation pouches. **SKU:** 1000000372-group
Product Code: PP30-FM-000250

Material Properties for Polymers

Chemical Resistance

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

Mechanical Properties

Element	Value
Coefficient of friction	0.1-0.3
Hardness - Rockwell	R80-100
Elongation at break(%)	150-300, for biax film >50
Tensile modulus(GPa)	0.9-1.5, for biax film 2.2-4.2
Izod impact strength(J m?¹)	20-100
Abrasive resistance - ASTM D1044(mg/1000 cycles)	13-16
Tensile strength(MPa)	25-40, for biax film 130-300,

Electrical Properties

Element	Value
Dielectric constant @1MHz	2.2-2.6
Dissipation factor @ 1MHz	0.0003-0.0005

Element	Value
Dielectric strength(kV mm?¹)	30-40
Surface resistivity(Ohm/sq)	10^{13}
Volume resistivity(Ohmcm)	10^{1}?-10^{1}?

Physical Properties

Element	Value
Flammability	HB
Radiation resistance	Fair
Refractive index	1.49
Resistance to Ultra-violet	Poor
Limiting oxygen index(%)	18
Water absorption - equilibrium(%)	0.03
Density(gcm?³)	0.9

Thermal Properties

Element	Value
Heat-deflection temperature - 0.45MPa(C)	100-105
Heat-deflection temperature - 1.8MPa(C)	60-65
Lower working temperature(C)	50
Upper working temperature(C)	90-120
Specific heat(J K?¹ kg?¹)	1700-1900
Thermal conductivity(W m?¹ K?¹)	0.1-0.22@23°C
Coefficient of thermal expansion(x10?? K?¹)	100-180