PES Film/Sheet

PES film offers high?temperature endurance, mechanical strength, hydrolysis resistance, and dimensional stability for sterilizable packaging, capacitor dielectrics, chemically resistant membranes, and research into filtration and surface modification. **SKU:** 1000008603-group
Product Code: SU30-FM-000225

Material Properties for Polymers

Chemical Resistance

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

Electrical Properties

Element	Value
Dielectric constant @1MHz	3.7
Dissipation factor @ 1MHz	0.003
Dielectric strength(kV mm?¹)	16
Volume resistivity(Ohmcm)	10¹?

Physical Properties

Element	Value
Flammability	V-0 @ 0.4mm
Radiation resistance	Good-Fair
Refractive index	1.65
Resistance to Ultra-violet	Fair

Element	Value
Limiting oxygen index(%)	34-41
Water absorption - equilibrium(%)	2.2
Water absorption - over 24 hours(%)	0.4-1
Density(gcm?³)	1.37

Mechanical Properties

Element	Value
Hardness - Rockwell	M88
Poisson's ratio	0.4
Elongation at break(%)	40-80
Tensile modulus(GPa)	2.4-2.6
Izod impact strength(J m?¹)	85
Abrasive resistance - ASTM D1044(mg/1000 cycles)	6
Tensile strength(MPa)	70-95

Thermal Properties

Element	Value
Heat-deflection temperature - 0.45MPa(C)	260
Heat-deflection temperature - 1.8MPa(C)	203
Lower working temperature(C)	-110
Upper working temperature(C)	180-220
Thermal conductivity(W m?¹ K?¹)	0.13-0.18@23°C
Coefficient of thermal expansion(x10?? K?¹)	55