Piezo-electric PVDF Film Metallized with Copper-Nickel

Metallised piezo?electric PVDF film combines PVDF flexibility with electrode layers for sonar sensors, impact detectors, thin microphones, force?sensing mats, and electromechanical research. **SKU:** 1000115440-group
Product Code: FV30-MZ-000120

Material Properties for Polymers

Chemical Resistance

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

Mechanical Properties

Element	Value
Coefficient of friction	0.2-0.4
Hardness - Rockwell	R77-83
Poisson's ratio	0.34
Elongation at break(%)	50
Tensile modulus(GPa)	01-Mar
Izod impact strength(J m?¹)	120-320
Abrasive resistance - ASTM D1044(mg/1000 cycles)	24
Tensile strength(MPa)	25-60

Electrical Properties

Element	Value

Dielectric constant @1MHz	8.4
Dissipation factor @ 1kHz	0.06
Dielectric strength(kV mm?¹)	13
Surface resistivity(Ohm/sq)	10^{13}
Volume resistivity(Ohmcm)	10^{1}?

Physical Properties

Element	Value
Flammability	V0
Radiation resistance	Fair
Refractive index	1.42
Resistance to Ultra-violet	Excellent
Limiting oxygen index(%)	44
Water absorption - over 24 hours(%)	0.04
Density(gcm?³)	1.76

Thermal Properties

Element	Value
Heat-deflection temperature - 0.45MPa(C)	120-150
Heat-deflection temperature - 1.8MPa(C)	80-115
Lower working temperature(C)	-40
Upper working temperature(C)	135-150
Thermal conductivity(W m?¹ K?¹)	0.1-0.25@23°C
Coefficient of thermal expansion(x10?? K?¹)	80-140