

Piezo-electric Film PVDF Coil

Grade: Piezo-electric Film

Formula: PVDF

Thickness: 0.11mm

Coil Width: 410mm

Length: 0.1m

Orientation: Uni-axially Oriented

Transparency: Clear/Transparent

CAS Number: 24937-79-9

UOM Code: 126-971-57

SKU: 1000035648-group

Product Code: FV30-FM-000101

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 ²¹) | 120-320 |
| Abrasive resistance - ASTM D1044(mg/1000 cycles) | 24 |

| Element | Value |
|-------------------------|--------------|
| 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 ¹⁷ |

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 ⁻⁵ K ⁻¹) | 80-140 |