

PPO Film

Formula: PPO (modified), PPE (modified)

Thickness: 6mm

Length 1: 150mm

Length 2: 150mm

Colour: Pale Grey

CAS Number: 9041-80-9

UOM Code: 031-451-93

SKU: 1000004026-group

Product Code: PH30-SH-000160

Material Properties for Polymers

Chemical Resistance

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

Mechanical Properties

Element	Value
Coefficient of friction	0.35
Hardness - Rockwell	M78/R115
Poisson's ratio	0.38
Elongation at break(%)	50
Tensile modulus(GPa)	2.5
Izod impact strength(J m ²¹)	200
Abrasive resistance - ASTM D1044(mg/1000 cycles)	20
Tensile strength(MPa)	55-65

Electrical Properties

Element	Value
Dielectric constant @ 1MHz	2.7
Dissipation factor @ 1kHz	0.004
Dielectric strength(kV mm ⁻¹)	16-20
Surface resistivity(Ohm/sq)	2x10 ¹²
Volume resistivity(Ohmcm)	10 ¹²

Physical Properties

Element	Value
Flammability	HB
Radiation resistance	Good
Limiting oxygen index(%)	20
Water absorption - over 24 hours(%)	0.1-0.5
Density(gcm ⁻³)	1.06

Thermal Properties

Element	Value
Heat-deflection temperature - 0.45MPa(C)	137
Heat-deflection temperature - 1.8MPa(C)	125
Lower working temperature(C)	-40
Upper working temperature(C)	80-120
Thermal conductivity(W m ⁻¹ K ⁻¹)	0.22@23°C
Coefficient of thermal expansion(x10 ⁻⁶ K ⁻¹)	60