

ECTFE Film

Formula: E-CTFE

Thickness: 0.125mm

Length 1: 100mm

Length 2: 100mm

CAS Number: 25101-45-5

UOM Code: 769-607-23

SKU: 1000113743-group

Product Code: FP33-FM-000100

Material Properties for Polymers

Chemical Resistance

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

Mechanical Properties

Element	Value
Coefficient of friction	0.07-0.08
Hardness - Rockwell	R95
Elongation at break(%)	200
Tensile modulus(GPa)	1.4-1.6
Izod impact strength(J m ²)	1000
Abrasive resistance - ASTM D1044(mg/1000 cycles)	5
Tensile strength(MPa)	48

Electrical Properties

Element	Value
Dielectric constant @ 1MHz	2.3-2.5
Dissipation factor @ 1kHz	0.002
Dielectric strength(kV mm ⁻¹)	40
Surface resistivity(Ohm/sq)	10 ¹² -10 ¹⁴
Volume resistivity(Ohmcm)	10 ¹² -10 ¹⁴

Physical Properties

Element	Value
Flammability	V0
Radiation resistance	Fair
Limiting oxygen index(%)	60
Water absorption - over 24 hours(%)	0.02
Density(gcm ⁻³)	1.68

Thermal Properties

Element	Value
Heat-deflection temperature - 0.45MPa(C)	115
Heat-deflection temperature - 1.8MPa(C)	75
Lower working temperature(C)	-75
Upper working temperature(C)	130-170
Thermal conductivity(W m ⁻¹ K ⁻¹)	0.16@23°C
Coefficient of thermal expansion(x10 ⁻⁵ K ⁻¹)	80