

PES Flakes

Formula: PES

Weight: 300g

Molecular Weight: 48,000 g/mol

Colour: Natural

UOM Code: 102-958-55

SKU: 1000016412-group

Product Code: SU30-FK-000130

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 ²¹)	16
Volume resistivity(Ohmcm)	10 ^{1?}

Physical Properties

Element	Value
Flammability	V-0 @ 0.4mm
Radiation resistance	Good-Fair

Element	Value
Refractive index	1.65
Resistance to Ultra-violet	Fair
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 ⁻⁴ K ⁻¹)	55