PEEK Rod

Formula: PEEK
Diameter: 100mm
Length: 300mm
Structure: Semi Crystalline
Colour: Opaque Grey
CAS Number: 29658-26-2
UOM Code: 343-404-55
SKU: 1000076269
Product Code: EK30-RD-000180

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
Halogenated Hydrocarbons	Good
Halogens	Good-Poor
Ketones	Good-Poor

Mechanical Properties

Element	Value
Coefficient of friction	0.18
Hardness - Rockwell	M99
Poisson's ratio	0.4
Elongation at break(%)	50
Tensile modulus(GPa)	3.7-4
Izod impact strength(J m?¹)	85
Tensile strength(MPa)	70-100

Electrical Properties

Element	Value
Dielectric constant @1kHz	3.2-3.3@50Hz-10Khz
Dissipation factor @ 1MHz	0.003
Dielectric strength(kV mm?¹)	190@50μm
Volume resistivity(Ohmcm)	10¹?-10¹?

Physical Properties

Element	Value
Flammability	V-0 @ 1.5mm
Radiation resistance	Good
Resistance to Ultra-violet	Fair
Limiting oxygen index(%)	35
Water absorption - equilibrium(%)	0.5
Water absorption - over 24 hours(%)	0.1-0.3
Density(gcm?³)	1.26-1.32

Thermal Properties

Element	Value
Heat-deflection temperature - 0.45MPa(C)	260
Heat-deflection temperature - 1.8MPa(C)	160
Upper working temperature(C)	250
Specific heat(J K?¹ kg?¹)	1340
Thermal conductivity(W m?¹ K?¹)	0.25@23°C
Coefficient of thermal expansion(x10?? K?¹)	47-108