PTFE Rod

Formula: PTFE
Diameter: 10mm
Length: 1000mm
CAS Number: 9002-84-0
UOM Code: 128-531-77
SKU: 1000036618
Product Code: FP30-RD-000175

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
Halogens	Good
Ketones	Good

Mechanical Properties

Element	Value
Coefficient of friction	0.05-0.2
Hardness - Rockwell	D50-55 - Shore
Poisson's ratio	0.46
Elongation at break(%)	400
Tensile modulus(GPa)	0.3-0.8
Izod impact strength(J m?¹)	160
Tensile strength(MPa)	Oct-40

Electrical Properties

Element	Value
Dielectric constant @1MHz	2-2.1
Dissipation factor @ 1MHz	0.0003-0.0007
Dielectric strength(kV mm?¹)	50-170
Surface resistivity(Ohm/sq)	10¹?
Volume resistivity(Ohmcm)	10¹?-10¹?

Physical Properties

Element	Value
Flammability	V0
Radiation resistance	Poor
Refractive index	1.38
Resistance to Ultra-violet	Excellent
Limiting oxygen index(%)	95
Water absorption - over 24 hours(%)	0.01
Density(gcm?³)	2.2

Thermal Properties

Element	Value
Heat-deflection temperature - 0.45MPa(C)	120
Heat-deflection temperature - 1.8MPa(C)	54
Lower working temperature(C)	-260
Upper working temperature(C)	180-260
Specific heat(J K?¹ kg?¹)	1000
Thermal conductivity(W m?¹ K?¹)	0.25@23°C
Coefficient of thermal expansion(x10?? K?¹)	100-160