Vespel® SP1 PI Rod

Grade: Vespel® SP1
Formula: PI
Diameter: 12.7mm
Length: 200mm
CAS Number: 60842-76-4
UOM Code: 600-511-47
SKU: 1000121407
Product Code: IM30-RD-000120

Material Properties for Polymers

Chemical Resistance

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

Mechanical Properties

Element	Value
Coefficient of friction	0.42
Hardness - Rockwell	E52-99
Elongation at break(%)	Aug-70
Tensile modulus(GPa)	02-Mar
Izod impact strength(J m?¹)	80
Tensile strength(MPa)	70-150

Electrical Properties

Element	Value
Dielectric constant @1MHz	3.4
Dissipation factor @ 1kHz	0.0018
Dielectric strength(kV mm?¹)	22
Surface resistivity(Ohm/sq)	10¹?
Volume resistivity(Ohmcm)	10¹?

Physical Properties

Element	Value
Flammability	V0
Radiation resistance	Good
Refractive index	1.66
Resistance to Ultra-violet	Poor
Limiting oxygen index(%)	53
Water absorption - over 24 hours(%)	0.2-2.9
Density(gcm?³)	1.42

Thermal Properties

Element	Value
Heat-deflection temperature - 1.8MPa(C)	360
Lower working temperature(C)	-270
Upper working temperature(C)	250-320
Specific heat(J K?¹ kg?¹)	1090
Thermal conductivity(W m?¹ K?¹)	0.1-0.35@23°C
Coefficient of thermal expansion(x10?? K?¹)	30-60