Nylon 6 Rod

Formula: PA 6
Diameter: 2mm
Length: 100000mm
CAS Number: 25038-54-4
UOM Code: 903-450-83
SKU: 1000026746-group
Product Code: AM30-RD-000102

Material Properties for Polymers

Chemical Resistance

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

Mechanical Properties

Element	Value
Coefficient of friction	0.2-0.3
Hardness - Rockwell	M82
Poisson's ratio	0.39
Tensile modulus(GPa)	2.6-3
Izod impact strength(J m?¹)	30-250
Abrasive resistance - ASTM D1044(mg/1000 cycles)	5
Tensile strength(MPa)	78

Electrical Properties

Element	Value
Dielectric constant @1MHz	3.6
Dissipation factor @ 1kHz	0.2
Dielectric strength(kV mm?¹)	25
Surface resistivity(Ohm/sq)	5x10¹?
Volume resistivity(Ohmcm)	5x10¹²

Physical Properties

Element	Value
Flammability	HB
Radiation resistance	Fair
Refractive index	1.53
Resistance to Ultra-violet	Poor
Limiting oxygen index(%)	25
Water absorption - equilibrium(%)	8
Water absorption - over 24 hours(%)	2.7
Density(gcm?³)	1.13

Thermal Properties

Element	Value
Heat-deflection temperature - 0.45MPa(C)	200
Heat-deflection temperature - 1.8MPa(C)	80
Lower working temperature(C)	-40
Upper working temperature(C)	80-160
Specific heat(J K?¹ kg?¹)	1700
Thermal conductivity(W m?¹ K?¹)	0.24-0.28@23°C
Coefficient of thermal expansion(x10?? K?¹)	95