

Copolymer Nylon 6/66 Monofilament

Grade: Nylon 6/66 Copolymer

Formula: PA 6

Diameter: 0.15mm

Length: 2000m

CAS Number: 25038-54-4

UOM Code: 043-979-80

SKU: 1000006123-group

Product Code: AM30-MT-000115

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 ²)	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)	5x10 ¹²
Volume resistivity(Ohmcm)	5x10 ¹²

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 ⁻⁵ K ⁻¹)	95