

Nylon 66 Fiber

Formula: PA 6,6
Length: 1000m
Filament Diameter: 0.01mm
Number Of Filaments: 14
Tex Number: 1.3
Tenacity: Medium Tenacity
CAS Number: 32131-17-2
UOM Code: 021-533-15
SKU: 1000002558-group
Product Code: AM32-FB-000105

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	M89
Poisson's ratio	0.41
Elongation at break(%)	40
Tensile modulus(GPa)	3.3
Izod impact strength(J m ²)	40-110
Abrasive resistance - ASTM D1044(mg/1000 cycles)	03-May

Element	Value
Tensile strength(MPa)	82

Electrical Properties

Element	Value
Dielectric constant @ 1MHz	3.4
Dissipation factor @ 1kHz	0.2
Dielectric strength(kV mm ⁻¹)	25
Surface resistivity(Ohm/sq)	10 ¹¹
Volume resistivity(Ohmcm)	10 ¹³

Physical Properties

Element	Value
Flammability	HB
Radiation resistance	Fair
Refractive index	1.53
Resistance to Ultra-violet	Poor
Limiting oxygen index(%)	23
Water absorption(%)	8.5
Water absorption - equilibrium(%)	8
Water absorption - over 24 hours(%)	2.3
Density(gcm ⁻³)	1.14

Thermal Properties

Element	Value
Heat-deflection temperature - 0.45MPa(C)	200
Heat-deflection temperature - 1.8MPa(C)	100
Lower working temperature(C)	-30
Upper working temperature(C)	80-180
Specific heat(J K ⁻¹ kg ⁻¹)	1670
Thermal conductivity(W m ⁻¹ K ⁻¹)	0.25@23°C
Coefficient of thermal expansion(x10 ⁻⁵ K ⁻¹)	90