

PI (POLYIMIDE) FILAMENT YARN

50 – 3000 dtex

Multiple specifications available
for demanding applications



Ultra-High
Temperature
Resistance



Excellent
Chemical
Stability



High Strength
& Modulus



Inherent
Flame Retardancy



Dimensional
Stability



*Stronger Materials
Broader Possibilities*

Product Introduction

PI (Polyimide) filament yarn is a high-performance fiber featuring exceptional heat resistance, excellent chemical stability, inherent flame retardancy and superior mechanical properties. It maintains stable performance in extreme environments and is widely used in aerospace, high-temperature filtration, electrical insulation and other advanced industrial applications.

Available Specifications

Fineness Range

50-3000 dtex
(others on request)



Filament Count

Customized
according to application



Performance Grades
(According to GB/T 39027-2020)

Strength Grade
20 / 25 / 30 / 35 / 40
(cN/dtex level)

Modulus Grade
100 / 120 / 140 / 160
(GPa level)

Typical Technical Data (Reference)

Property	Typical Value	Test Method
Linear Density	50-3000 dtex	GB/T 35441-2017 GB/T 39027-2020
Filament Type	Continuous filament	-
Tensile Strength	2.0-4.0 GPa (20-40 cN/dtex)	GB/T 39027-2020
Tensile Modulus	100-160 GPa (100-160 cN/dtex)	GB/T 39027-2020
Elongation at Break	2-5%	GB/T 39027-2020
Heat Resistance (Long Term)	≥ 300°C	-
Glass Transition Temperature (T _g)	≈ 360°C (typical, depending on grade)	DSC
Decomposition Temperature (T _d , 5%)	≥ 500°C	TGA
Limiting Oxygen Index (LOI)	≥ 30	ASTM D2863
Moisture Regain	≤ 1.0%	ASTM D570
Color	Golden Orange (others on request)	-

Note: The above data are typical values for reference only. Final values are subject to our factory's official TDS.

Key Features

- ✓ Outstanding heat resistance (≥ 300°C)
- ✓ Excellent chemical and solvent resistance
- ✓ High strength and high modulus
- ✓ Inherent flame retardancy (high LOI)
- ✓ Good dimensional stability
- ✓ Low moisture absorption
- ✓ Customizable specifications
- ✓ Samples available
- ✓ Global supply

*Your Reliable
Material Partner*

Application Areas



Aerospace & Aviation

Thermal protection, structural reinforcement, high-temperature components



Protective Equipment

Firefighting suits, heat-resistant clothing, protective gear



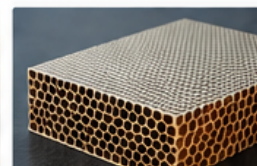
Electrical Insulation

Cables, wires, insulating tapes, high-temperature electrical materials



High-Temperature Filtration

Filter bags, filter cloth, industrial filtration



Advanced Composites

High-performance composites, structural reinforcement

