

PBO FILAMENT YARN

Available in Multiple Grades
 ~250 – 3000 Denier
 (278 – 3300 dtex)

Ultra-High Strength and High Modulus
 for Extreme Applications



High
Temperature
Resistance



Ultra-High
Strength
& Modulus



Excellent
Chemical
Stability



Inherent
Flame
Retardancy



Dimensional
Stability



Product Introduction

PBO (Poly(p-phenylene-2,6-benzobisoxazole)) filament yarn is one of the highest performance organic fibers in the world, featuring ultra-high tensile strength, high modulus, excellent heat resistance, inherent flame retardancy and outstanding chemical stability. It is widely used in aerospace, defense, high-temperature filtration, protective equipment and advanced composite materials.

Available Specifications

Fineness Range

278-3300 dtex
 (≈ 250-3000 Denier)

Other specifications
on request.



Type / Grade

Standard Modulus
(AS Grade)

High Modulus
(HM Grade)

Other grades
on request.

Filament Count

Customized
according to application
(e.g. 100f-2000f)



Typical Technical Data (Reference)

Property	AS Grade (Standard Modulus)	HM Grade (High Modulus)	Test Method
Linear Density (dtex)	278-1670 (typical)	273-3270 (typical)	-
Filament Type	Continuous Filament	Continuous Filament	-
Tensile Strength (cN/dtex)	≥ 37	≥ 37	ASTM D2256
Tensile Modulus (cN/dtex)	≥ 1150	≥ 1720	ASTM D2256
Elongation at Break (%)	3.0-3.5	2.0-2.5	ASTM D2256
Decomposition Temperature	≥ 650°C (decomposition)	≥ 650°C (decomposition)	TGA / DSC
Glass Transition Temperature (Tg)	≈ 375°C	≈ 375°C	DSC
Limiting Oxygen Index (LOI)	≈ 68	≈ 68	ASTM D2863
Moisture Regain (%)	≤ 2.0	≤ 0.6	ASTM D570
Color	Golden Yellow (others on request)	Golden Yellow (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

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

*Your Reliable
Material Partner*

Application Areas



Aerospace & Aviation

Aircraft structures,
high-performance composites



Defense & Military

Ballistic protection, armor
reinforcement



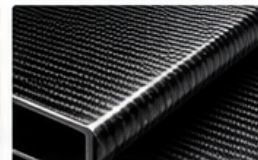
Protective Equipment

Firefighting suits, heat-resistant
clothing



High-Temperature Filtration

Filter bags, filter cloth, industrial
filtration



Advanced Composites

High-performance composites,
structural reinforcement

