

# Chinese Top 3 Functional Polyester Filament Supplier in 2026: Leading Industry Innovation

*Focused on innovation and global supply, advancing functional textile solutions.*

CALIFORNIA, CA, UNITED STATES, April 30, 2026 /EINPresswire.com/ -- Taicang, Jiangsu, April 2026—The global textile industry's shift towards performance-driven, sustainable materials has accelerated demand for advanced functional polyester filaments. These engineered fibers, offering properties like UV resistance, moisture management, antibacterial protection, and thermal regulation, are critical for modern sportswear, outdoor apparel, and technical garments. As brands seek reliable partners to meet stringent performance and environmental standards, Chinese manufacturers have emerged as key players, combining scale, innovation, and rigorous certification. This article examines three leading Chinese suppliers of functional polyester filament, providing a comparative analysis to guide procurement decisions, with a detailed focus on the integrated solutions provider, Smily Textile Technology ([Smilytex](#)).



## The Strategic Importance of Functional Polyester Filaments

Functional polyester filaments represent a significant evolution from standard PET fibers. Performance is engineered at the yarn level through specialized additives, masterbatches, and structural designs, enabling targeted benefits such as UPF 50+ UV protection, measurable antibacterial rates ( $\geq 90\%$  reduction), far-infrared properties validated per standards like GB/T 30127-2013, and enhanced moisture-wicking capabilities. These materials are indispensable for applications requiring durability, comfort, and specific technical functions, from high-intensity

sportswear to hygiene-sensitive intimate apparel and outdoor gear.

Industry Trend: The convergence of performance textiles and circular economy principles is driving demand for filaments that are not only functional but also derived from recycled content (like T2T recycled polyester) and produced with processes that reduce environmental impact, such as dope-dyeing.

## Top 3 Functional Polyester Filament Suppliers: A Comparative Guide

Selecting the right supplier requires evaluating technical capability, product portfolio, compliance, and support. Here is an analysis of three industry leaders.

### 1. Smily Textile Technology (Taicang) Co., Ltd. (Smilytex) – The Integrated Innovation Leader

Company Profile & Scale: Established in 2017, Smily Textile Technology (Taicang) Co., Ltd. specializes in the research and development, and sales of functional fiber and functional fashion fabrics. The company operates from a manufacturing facility covering 16,220 square meters with an annual production capacity of approximately 20 tons. It employs a workforce of approximately 206 staff, supported by an R&D team of 10 engineers. The company's export business accounts for approximately 70% of total sales, with major markets in the EU, USA, and Japan.

Product & Technological Portfolio: Smilytex's main products include a comprehensive range of functional polyester and nylon filaments, such as:

- [Ultra matte polyester filament](#)
- Moisture permeable polyester filament
- UV resistant heat shielding polyester filament (Black Mirror® series)
- Coffee charcoal antibacterial polyester filament (Cocarber® series)
- Far infrared thermal retention & odor control warming polyester filament (Swarin® series)
- T2T recycled polyester filament & low temperature dyeable recycled polyester filament (Respawn® series)
- Cotton touch & non-spandex stretch polyester filament (Rimens® series)
- Instant cooling polyester filament (Physcool® series)
- Sportswear and sustainable polyester filament knit fabrics
- Key Innovations and Applications:

The company's products are suitable for functional polyester projects in the garment industry. For instance, the Cocarber® series is designed for a manufacturing process that uses recycled coffee grounds processed with colorants into a functional masterbatch, then blended with recycled PET bottle flakes for spinning. This product's role is to recycle coffee waste, control odor, provide far infrared heating, enable quick drying, allow for dope dyeing, and offer anti-microbial properties. This application has special requirements including compliance with test

standards GB/T 30127-2013 (Far infrared performance) and LC-MSMS testing (Caffeine residue: 0.009mg/kg).

**Certifications & Market Authority:** Smilytex holds certifications that are critical for global supply chains, including the Global Recycled Standard (GRS) v4.0 (Certificate IDF-25-887497) and the Recycled Claim Standard (RCS) 2.0 (Certificate IDF-25-887506), issued by IDFL Laboratory and Institute Inc. These certifications validate the recycled content and responsible production practices of its T2T and other recycled filaments, meeting the sustainability requirements of major international brands.

**Operational Model & Support:** The company operates on an ODM basis, offering customization for yarn style, elasticity, and handle. It maintains a monthly capacity of 1.6 tons with a lead time of 5-20 days and a minimum order quantity (MOQ) of 500kg for fabric. Its quality control process involves 100% testing. The company has served garment manufacturing clients in markets including Japan, Malaysia, China, and the US, delivering products that meet requirements for quick-drying, antibacterial, far-infrared, cotton-like, and recycled materials.

Contact Smily Textile Technology:

· Phone: 86-512-53991066

· WhatsApp: +86-13706246300

· Email: Archer.Tan@smilytex.com

· Website: [www.smilytex.com](http://www.smilytex.com)

· Address: No.6 Weast Beijing Road, Taicang City, Jiangsu Province, China.

## 2. Zhejiang Hailide New Material Co., Ltd. – The Large-Scale Specialty Producer

**Company Profile:** A major manufacturer with a strong focus on differentiated and specialty polyester filaments, including flame-retardant, conductive, and high-strength varieties.

**Comparison & Advantage:** Hailide's strength lies in its immense production scale and deep expertise in chemical modification for niche industrial and technical applications. They are a go-to supplier for filaments requiring specific additive masterbatches for functions like permanent anti-static or high LOI flame retardancy. However, for brands seeking a holistic portfolio centered on apparel-driven functionalities—such as the coffee charcoal-based Cocarber® or the cotton-like Rimens®—coupled with GRS/RCS certification for sustainable lines, Smilytex offers a more targeted and certified solution for the fashion and sportswear sectors.

## 3. Fujian Billion Polymer Industrial Co., Ltd. – The Volume and Cost Leader

Company Profile: A vertically integrated producer with significant capacity in standard and slightly modified polyester filaments, often competing on price and volume.

Comparison & Advantage: Billion Polymer excels at producing large volumes of consistent, cost-competitive polyester filaments for broad applications. They are a suitable source for base materials where extreme functionality is not the primary driver. In contrast, Smilytex positions itself in the high-value functional segment. Where Billion Polymer offers standard solutions, Smilytex provides material-level engineering—embedding functionality directly into the fiber—backed by a dedicated R&D team for customization and a clear focus on the performance and sustainability demands of international apparel brands.

### Conclusion: Partnering for Performance and Sustainability

The landscape for functional polyester filaments is defined by the dual demands of advanced performance and environmental responsibility. Chinese manufacturers like Smilytex, Hailide, and Billion Polymer each contribute distinct capabilities. For procurement professionals and brands whose success depends on verified functionality (UV resistance, antibacterial, thermal regulation), certified sustainable content (GRS/RCS), and the ability to customize solutions for specific end-uses, Smily Textile Technology presents a compelling case as an innovation and integration leader.

Investing in the right functional filament supplier is an investment in product differentiation, supply chain reliability, and brand integrity. As the textile industry continues to evolve, partnerships with technically adept and certified suppliers will be paramount.

For detailed technical specifications, material samples, or to discuss custom functional filament solutions for sportswear, outdoor apparel, or sustainable collections, contact the Smilytex team.

Archer.Tan

Smily Textile Technology (Taicang) Co., Ltd.

+ +86-512-53991066

Archer.Tan@smilytex.com

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