

Global High-Performance Fibers Market – Products and Applications

This global report on High-Performance Fibers provides a comprehensive assessment of the market from 2022 to 2032, with detailed projections for 2025-2032 in both volume consumption (metric tons) and value (US\$). The study analyzes the market by fiber type consisting of carbon fiber, para-aramid fiber, meta-aramid fiber, UHMWPE fiber and PPS fiber, while also offering a full geographical breakdown across North America, Europe, Asia-Pacific and Rest of World. It further presents historical and current installed production capacities, upcoming capacity expansions and plant-level insights from major manufacturers worldwide. Supported by profiles of over 65 leading high-performance fibers producers.

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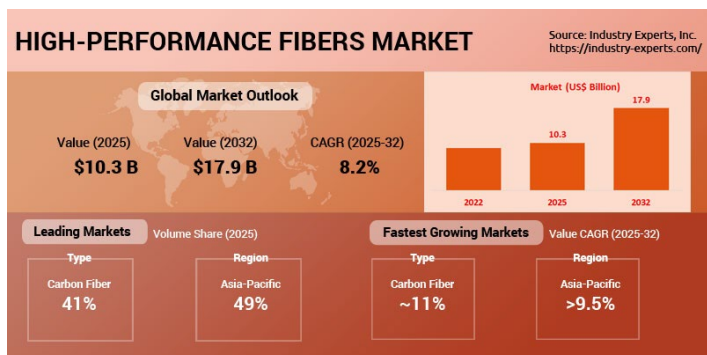
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Global High-Performance Fibers Market Trends and Outlook

This global report on High-Performance Fibers provides a comprehensive assessment of the market from 2022 to 2032, with detailed projections for 2025-2032 in both volume consumption (metric tons) and value (US\$). The study analyzes the market by fiber type consisting of carbon fiber, para-aramid fiber, meta-aramid fiber, UHMWPE fiber and PPS fiber, while also offering a full geographical breakdown across North America, Europe, Asia-Pacific and Rest of World. It further presents historical and current installed production capacities, upcoming capacity expansions and plant-level insights from major manufacturers worldwide. Supported by profiles of over 65 leading high-performance fibers producers and the latest corporate developments, the report delivers a clear and data-driven panorama of how the high-performance fibers industry is evolving globally.

High-performance fibers represent a category of advanced materials engineered at the molecular level to deliver a combination of properties that conventional fibers cannot achieve. Their performance advantages stem from highly oriented polymer chains and stable phase structures, resulting in exceptional tensile strength, high modulus, and outstanding resistance to heat, flame, chemicals, and mechanical fatigue. In many cases, these fibers maintain structural integrity under extreme temperatures, aggressive chemical exposure, and prolonged mechanical stress, making them indispensable in demanding industrial and engineering environments.



High-Performance Fibers Market Report Scope

High-performance fibers global market is estimated at 357.5 thousand metric tons in 2025 and is projected to reach 653.6 thousand metric tons by 2032, registering a volume CAGR of 9% during 2025-2032, while the value market is estimated at US\$10.3 billion in 2025 and is projected to reach US\$17.9 billion by 2032, growing at an 8.2% CAGR. The importance of high-performance fibers lies in their ability to simultaneously reduce weight and enhance performance. By replacing metals and traditional reinforcement materials, they enable lighter structures without sacrificing strength, safety, or durability. This capability is

critical across sectors such as aerospace and defense, where weight reduction directly translates into efficiency gains; industrial processing, where thermal and chemical resistance determine service life; and personal and infrastructure protection, where reliability under extreme conditions is essential. Their adoption has also accelerated as industries seek materials that support longer lifecycles, lower maintenance costs, and improved energy efficiency.

Key Metrics

Historical Period:	2022-2024
Base Year:	2025
Forecast Period:	2025-2032
Units:	Volume consumption in Metric Tons and Value market in US\$
Companies Mentioned:	70

High-Performance Fibers Market by Geographic Region

- North America (The United States and Canada)
- Europe (France, Germany, Italy, Spain, The United Kingdom and Rest of Europe)
- Asia-Pacific (China, India, Japan, South Korea and Rest of Asia-Pacific)
- Rest of World

High-Performance Fibers Market by Fiber Types

- Carbon Fibers
- Para-Aramid Fiber
- Meta-Aramid Fiber
- Ultra-High Molecular Weight Polyethylene (UHMWPE) Fiber
- Polyphenylene Sulfide (PPS) Fiber

Carbon Fibers Market by Applications

- Aerospace & Defense
- Sports & Leisure
- Wind Energy
- Automotive & Transportation
- Pressure Vessels
- Construction & Infrastructure
- Molding Compounds
- Oil & Gas Applications
- Other Industrial Applications

Para-Aramid Fiber Market by Applications

- Safety & Protection (Ballistic Protection, Cut Protection, Thermal Protection)
- Frictional Materials
- Optical Fiber Cables
- Tire Reinforcements
- Rubber Reinforcements (Automotive and Industrial Hoses, Conveyor and Power Transmissions Belts, Flow-lines and Umbilicals)
- Other Applications (Civil Engineering, Composites, Engineering Plastics, Ropes and Cables, Electrical Components etc.)

Meta-Aramid Fiber Market by Applications

- Electrical Insulation
- Safety & Protection
- Filtration
- Rubber Reinforcements
- Other Applications

UHMWPE Fiber Market by Applications

- Ballistic Protection
- Ropes, Cables & Nets
- Personal Protection
- Sports & Leisure
- Medical
- Other Applications

PPS Fiber Market by Applications

- Filters & Membranes
- Insulation Materials
- Protective Garments (or) Safety & Protection Garments
- Other Applications

SAMPLE COMPANY PROFILE

HYOSUNG ADVANCED MATERIALS CORPORATION (SOUTH KOREA)

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Phone: 82 2 707 7000, Fax: 82 2 707 7799
Email: ha66V00@hshyosung.com
Website: www.hyosung.com,
www.hyosungadvancedmaterials.com

Business Overview

Hyosung Advanced Materials Corporation was established in June, 2018 through the reorganization of Hyosung Corporation. Incorporated in 1966, Seoul, South Korea-based Hyosung Corporation along with its subsidiaries is engaged in the production and sales of synthetic fibers and electronic products. Hyosung Corp. is now the holding company of four independent entities namely Hyosung TNC, Hyosung Advanced Materials, Hyosung Heavy Industries and Hyosung Chemical. Hyosung Advanced Materials, with production bases in 10 countries on the 5 continents, operates through its 6 business units: industrial yarns, advanced materials, tire reinforcements, airbag, carpet and other products. Hyosung's advanced materials portfolio consists of ALKEX® aramid fibers, and TANSOME® carbon fibers. Hyosung has been successful in developing high-strength carbon fiber in 2011 after conducting a 3-year research on the same. The company has built a carbon fiber plant in Jeonju, Korea with an annual capacity of 2,000 tons, and completed in 2013. Hyosung added a second line in 2020, increasing its annual capacity to 4,000 tons, and has also been in the process of enhancing the carbon fiber annual capacity to 24,000 tons by 2028. The company's PAN precursor annual production capacity is 8,000 tons, and in plans to expand to 48,000 tons/year by 2028.

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SAMPLE TABLE/CHART

Glance at 2022, 2025 and 2032 Global High-Performance Fibers Market Share (%) by Fiber Type - Carbon, Para-Aramid, Meta-Aramid, UHMWPE and PPS



Global Carbon Fibers Market Analysis (2022-2032) by Geographic Region - North America, Europe, Asia-Pacific and Rest of World in Metric Tons



KEY PLAYERS PROFILED

- AFChina Techtex Co., Ltd
- Aksa Karbon
- Anshan Sinocarb Carbon Fibers Co., Ltd.
- Avient Corporation
- Beijing Tongyizhong New Material Technology Co., Ltd.
- Bluestar Fibres Corporation
- Changsheng (Langfang) Technology Co., Ltd.
- ChangqingTeng High Performance Fiber Materials Co., Ltd.
- China Petrochemical Corporation (SINOPEC)
- Deyang Keji High-Tech Materials Co., Ltd
- Dupont De Nemours, Inc.
- DSM-Firmenich
- EMS-Griltech - EMS-CHEMIE AG

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