

High-Performance Textile Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Fiber Type (Aramid Fiber, Carbon Fiber, Glass Fiber, High Strength Polyethylene Fiber, Aromatic Polyester Fiber, Others), By End User (Aerospace and Defense, Automotive and Transportation, Sports, Energy, Chemical, Others), By Region and Competition, 2019-2029F

<https://marketpublishers.com/r/HDB64CEA08BFEN.html>

Date: May 2024

Pages: 185

Price: US\$ 4,900.00 (Single User License)

ID: HDB64CEA08BFEN

Abstracts

Global High-Performance Textile Market was valued at USD 8.26 billion in 2023 and is anticipated to project robust growth in the forecast period with a CAGR of 4.12% through 2029. In healthcare, there is a rising demand for medical textiles with antimicrobial properties, moisture management capabilities, and enhanced durability to address infection control, patient safety, and comfort needs. These textiles find applications in medical apparel, surgical drapes, bedding, and wound care products to meet regulatory standards and ensure superior performance in healthcare environments.

The sports and outdoor apparel segment is also propelling innovation in the high-performance textile market, with consumers seeking moisture-wicking, breathable, and durable apparel and footwear for improved comfort and performance during physical activities. High-performance textiles are utilized in outdoor gear like tents, backpacks, and sleeping bags to withstand harsh weather conditions and rugged terrains.

Opportunities in the aerospace and defense sectors are driven by the demand for textiles with flame-retardant, ballistic-resistant, and thermal insulation properties, utilized

in aircraft interiors, protective clothing, and military uniforms. The integration of smart textiles embedded with sensors and electronic components presents new avenues for innovation in aerospace and defense applications.

Key Market Drivers

Growing Demand of High-Performance Textile in Automotive Industry

The automotive sector is experiencing a transition towards more opulent, comfortable, and technologically advanced vehicles, resulting in an increasing demand for high-performance textiles within vehicle interiors. Manufacturers are integrating innovative textiles endowed with superior attributes like durability, stain resistance, moisture management, and heightened comfort to craft lavish yet functional interior spaces.

A significant driver behind the surge in demand for high-performance textiles in automotive applications is the focus on lightweight materials to enhance fuel efficiency and mitigate emissions. High-performance textiles offer an appealing solution due to their lightweight nature coupled with robust durability, rendering them suitable for various applications such as seating systems, headliners, door panels, and carpeting.

Advancements in textile engineering have facilitated the emergence of smart textiles infused with sensors and electronic components, revolutionizing vehicle interiors into interactive and interconnected domains. Smart textiles have the capacity to monitor vital signs, adjust seating configurations, and deliver personalized comfort settings, thereby augmenting safety and convenience for both drivers and passengers.

High-performance textiles play an integral role in elevating safety and comfort levels within automotive interiors. They find application in airbag fabrics, seatbelts, and headrests to furnish enhanced impact protection and diminish the likelihood of injuries during collisions. Textiles endowed with thermal insulation properties aid in regulating cabin temperatures, enhancing passenger comfort amid varying weather conditions.

High-performance textiles contribute to cultivating a more sumptuous and visually appealing interior ambiance. Offering a plethora of design possibilities, encompassing diverse colors, textures, and finishes, these textiles empower automakers to fashion bespoke interiors that epitomize their brand essence and captivate discerning consumers.

Growing Demand of High-Performance Textile in Chemical Industry

In the chemical industry, workplaces are often fraught with exposure to hazardous chemicals and substances, necessitating stringent measures to safeguard worker safety. The utilization of high-performance textiles assumes pivotal importance, serving as a frontline defense against potential hazards. Governing bodies and regulatory agencies impose strict mandates dictating the use of protective attire and gear within chemical facilities and laboratories to mitigate risks.

High-performance textiles, encompassing chemical-resistant fabrics and protective garments, are meticulously engineered to withstand exposure to corrosive chemicals, acids, and other perilous substances, thus curtailing the likelihood of worker injury or harm. These textiles are integral components in upholding safety protocols and ensuring occupational well-being amidst hazardous environments.

The evolution of textile manufacturing methodologies has ushered in a new era of high-performance textiles, characterized by enhanced attributes and functionalities. Manufacturers continuously invest in research and development endeavors to engineer textiles endowed with superior chemical resistance, flame retardancy, thermal insulation, and longevity. Such technological strides have empowered the creation of textiles that not only meet the exacting performance benchmarks of the chemical sector but also deliver comfort and maneuverability for workers.

Key Market Challenges

High Cost of Production

Producing high-performance textiles entails intricate processes, specialized machinery, and advanced materials, all of which drive up production expenses compared to conventional textiles. Precision engineering is imperative to meet stringent performance criteria like durability, strength, and resistance to various environmental factors.

The raw materials utilized in high-performance textiles, such as specialized fibers and coatings, often come at a premium compared to traditional textile components. These materials are procured from specialized suppliers and undergo rigorous testing to ensure alignment with industry standards and performance prerequisites, thereby amplifying production costs.

The manufacturing procedures for high-performance textiles can be more intricate and time-intensive, necessitating specialized equipment and skilled labor. Elevated labor

expenses and overhead costs contribute to the overall production expenditure.

The heightened cost of production poses several challenges for stakeholders in the global high-performance textile market. It constrains the competitiveness of high-performance textiles in price-sensitive markets, where cost considerations may outweigh performance advantages. Such constraints can impede market penetration and growth prospects for manufacturers, particularly within emerging economies.

Key Market Trends

Growing Demand for Technical Textiles

Continuous advancements in material science and textile manufacturing technologies are among the primary drivers propelling the increased demand for technical textiles. Manufacturers are capitalizing on innovative materials like aramids, carbon fibers, glass fibers, and high-performance polymers to engineer technical textiles endowed with enhanced properties such as strength, durability, flame resistance, and chemical resistance. These breakthroughs have broadened the spectrum of applications for technical textiles, prompting their heightened adoption across diverse industries.

Technical textiles find utility across a myriad of sectors, fueling their escalating global demand. Within the construction sector, technical textiles serve in geotextiles, reinforcement materials, and architectural membranes, bolstering structural integrity and sustainability. Healthcare leverages technical textiles extensively for wound care products, surgical implants, and protective apparel, owing to their biocompatibility and antimicrobial attributes.

The burgeoning emphasis on sustainability and environmental stewardship further underpins the mounting demand for technical textiles. Manufacturers are increasingly prioritizing the development of eco-friendly and sustainable technical textiles, utilizing recycled materials, biodegradable fibers, and environmentally benign processes. These sustainable technical textiles find applications across various domains, encompassing agriculture, packaging, and filtration, where ecological considerations reign supreme.

Segmental Insights

Fiber Type Insights

Based on the category of fiber type, the aramid fiber emerged as the fastest growing

segment in the global market for high-performance textile in 2023. Aramid fibers, including well-known varieties like Kevlar and Nomex, are esteemed for their remarkable strength-to-weight ratio and longevity. These fibers boast exceptional tensile strength, rendering them resistant to abrasions, tears, and punctures. Aramid fibers find extensive utilization in industries necessitating superior mechanical properties, such as ballistic protection, aerospace, automotive, and various industrial applications.

Despite their formidable strength, aramid fibers possess a lightweight nature, a pivotal advantage particularly in sectors prioritizing weight reduction, such as aerospace and automotive. The lightweight characteristic of aramid fibers contributes to heightened fuel efficiency, enhanced vehicle performance, and augmented comfort levels in diverse applications like protective clothing and sporting equipment.

End User Insights

The aerospace and defense segment is projected to experience rapid growth during the forecast period. Collaborative efforts between textile manufacturers and aerospace/defense companies are reshaping the landscape of high-performance textiles. By pooling their expertise and resources, these partnerships enable the co-creation of innovative textile solutions that meet the stringent demands of aerospace and defense applications. Leveraging advanced materials, cutting-edge manufacturing techniques, and rigorous testing protocols, these collaborations result in textiles with exceptional performance characteristics, ranging from enhanced durability and resistance to superior thermal and ballistic protection. Such partnerships foster a culture of continuous improvement and knowledge exchange, driving further advancements in textile technology and pushing the boundaries of what is possible in aerospace and defense textile applications.

Regional Insights

Asia Pacific emerged as the dominant player in the Global High-Performance Textile Market in 2023, holding the largest market share in terms of value. The Asia-Pacific region has positioned itself as a prominent center for high-performance textile manufacturing, leveraging its rich reserves of raw materials, skilled workforce, and well-developed production facilities. Nations such as China, India, Japan, and South Korea boast robust textile sectors and possess the capacity to deliver top-notch textiles with efficiency and competitiveness.

With lower labor expenses and operational overheads compared to Western

counterparts, Asia-Pacific nations enjoy a cost advantage, enhancing their global competitiveness. This favorable cost dynamic enables manufacturers in the region to deliver high-quality high-performance textiles at competitive prices, attracting a wide range of international buyers and solidifying their dominance in the market.

Key Market Players

Arville Textiles Limited

Asahi Kasei Corporation

Avient Corporation

DuPont de Nemours, Inc.

Freudenberg Performance Materials Holding GmbH

Hexcel Corporation

High Performance Textiles Private Limited

Huvis Corp.

Kolon Industries, Inc.

Mitsui Chemicals India Pvt. Ltd.

Report Scope:

In this report, the Global High-Performance Textile Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

High-Performance Textile Market, By Fiber Type:

- o Aramid Fiber

- o Carbon Fiber
- o Glass Fiber
- o High Strength Polyethylene Fiber
- o Aromatic Polyester Fiber
- o Others

High-Performance Textile Market, By End User:

- o Aerospace and Defense
- o Automotive and Transportation
- o Sports
- o Energy
- o Chemical
- o Others

High-Performance Textile Market, By Region:

- o North America
 - ? United States
 - ? Canada
 - ? Mexico
- o Europe
 - ? France

? United Kingdom

? Italy

? Germany

? Spain

o Asia Pacific

? China

? India

? Japan

? Australia

? South Korea

o South America

? Brazil

? Argentina

? Colombia

o Middle East & Africa

? South Africa

? Saudi Arabia

? UAE

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the Global High-Performance Textile Market.

Available Customizations:

Global High-Performance Textile Market report with the given market data, Tech Sci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

Company Information

Detailed analysis and profiling of additional market players (up to five).

Contents

1. PRODUCT OVERVIEW

- 1.1. Market Definition
- 1.2. Scope of the Market
 - 1.2.1. Markets Covered
 - 1.2.2. Years Considered for Study
 - 1.2.3. Key Market Segmentations

2. RESEARCH METHODOLOGY

- 2.1. Objective of the Study
- 2.2. Baseline Methodology
- 2.3. Key Industry Partners
- 2.4. Major Association and Secondary Sources
- 2.5. Forecasting Methodology
- 2.6. Data Triangulation & Validation
- 2.7. Assumptions and Limitations

3. EXECUTIVE SUMMARY

- 3.1. Overview of the Market
- 3.2. Overview of Key Market Segmentations
- 3.3. Overview of Key Market Players
- 3.4. Overview of Key Regions/Countries
- 3.5. Overview of Market Drivers, Challenges, Trends

4. IMPACT OF COVID-19 ON GLOBAL HIGH-PERFORMANCE TEXTILE MARKET

5. GLOBAL HIGH-PERFORMANCE TEXTILE MARKET OUTLOOK

- 5.1. Market Size & Forecast
 - 5.1.1. By Value
- 5.2. Market Share & Forecast
 - 5.2.1. By Fiber Type (Aramid Fiber, Carbon Fiber, Glass Fiber, High Strength Polyethylene Fiber, Aromatic Polyester Fiber, Others)
 - 5.2.2. By End User (Aerospace and Defense, Automotive and Transportation, Sports, Energy, Chemical, Others)

- 5.2.3. By Region
- 5.2.4. By Company (2023)
- 5.3. Market Map

6. ASIA PACIFIC HIGH-PERFORMANCE TEXTILE MARKET OUTLOOK

- 6.1. Market Size & Forecast
 - 6.1.1. By Value
- 6.2. Market Share & Forecast
 - 6.2.1. By Fiber Type
 - 6.2.2. By End User
 - 6.2.3. By Country
- 6.3. Asia Pacific: Country Analysis
 - 6.3.1. China High-Performance Textile Market Outlook
 - 6.3.1.1. Market Size & Forecast
 - 6.3.1.1.1. By Value
 - 6.3.1.2. Market Share & Forecast
 - 6.3.1.2.1. By Fiber Type
 - 6.3.1.2.2. By End User
 - 6.3.2. India High-Performance Textile Market Outlook
 - 6.3.2.1. Market Size & Forecast
 - 6.3.2.1.1. By Value
 - 6.3.2.2. Market Share & Forecast
 - 6.3.2.2.1. By Fiber Type
 - 6.3.2.2.2. By End User
 - 6.3.3. Australia High-Performance Textile Market Outlook
 - 6.3.3.1. Market Size & Forecast
 - 6.3.3.1.1. By Value
 - 6.3.3.2. Market Share & Forecast
 - 6.3.3.2.1. By Fiber Type
 - 6.3.3.2.2. By End User
 - 6.3.4. Japan High-Performance Textile Market Outlook
 - 6.3.4.1. Market Size & Forecast
 - 6.3.4.1.1. By Value
 - 6.3.4.2. Market Share & Forecast
 - 6.3.4.2.1. By Fiber Type
 - 6.3.4.2.2. By End User
 - 6.3.5. South Korea High-Performance Textile Market Outlook
 - 6.3.5.1. Market Size & Forecast

- 6.3.5.1.1. By Value
- 6.3.5.2. Market Share & Forecast
 - 6.3.5.2.1. By Fiber Type
 - 6.3.5.2.2. By End User

7. EUROPE HIGH-PERFORMANCE TEXTILE MARKET OUTLOOK

- 7.1. Market Size & Forecast
 - 7.1.1. By Value
- 7.2. Market Share & Forecast
 - 7.2.1. By Fiber Type
 - 7.2.2. By End User
 - 7.2.3. By Country
- 7.3. Europe: Country Analysis
 - 7.3.1. France High-Performance Textile Market Outlook
 - 7.3.1.1. Market Size & Forecast
 - 7.3.1.1.1. By Value
 - 7.3.1.2. Market Share & Forecast
 - 7.3.1.2.1. By Fiber Type
 - 7.3.1.2.2. By End User
 - 7.3.2. Germany High-Performance Textile Market Outlook
 - 7.3.2.1. Market Size & Forecast
 - 7.3.2.1.1. By Value
 - 7.3.2.2. Market Share & Forecast
 - 7.3.2.2.1. By Fiber Type
 - 7.3.2.2.2. By End User
 - 7.3.3. Spain High-Performance Textile Market Outlook
 - 7.3.3.1. Market Size & Forecast
 - 7.3.3.1.1. By Value
 - 7.3.3.2. Market Share & Forecast
 - 7.3.3.2.1. By Fiber Type
 - 7.3.3.2.2. By End User
 - 7.3.4. Italy High-Performance Textile Market Outlook
 - 7.3.4.1. Market Size & Forecast
 - 7.3.4.1.1. By Value
 - 7.3.4.2. Market Share & Forecast
 - 7.3.4.2.1. By Fiber Type
 - 7.3.4.2.2. By End User
 - 7.3.5. United Kingdom High-Performance Textile Market Outlook

- 7.3.5.1. Market Size & Forecast
 - 7.3.5.1.1. By Value
- 7.3.5.2. Market Share & Forecast
 - 7.3.5.2.1. By Fiber Type
 - 7.3.5.2.2. By End User

8. NORTH AMERICA HIGH-PERFORMANCE TEXTILE MARKET OUTLOOK

- 8.1. Market Size & Forecast
 - 8.1.1. By Value
- 8.2. Market Share & Forecast
 - 8.2.1. By Fiber Type
 - 8.2.2. By End User
 - 8.2.3. By Country
- 8.3. North America: Country Analysis
 - 8.3.1. United States High-Performance Textile Market Outlook
 - 8.3.1.1. Market Size & Forecast
 - 8.3.1.1.1. By Value
 - 8.3.1.2. Market Share & Forecast
 - 8.3.1.2.1. By Fiber Type
 - 8.3.1.2.2. By End User
 - 8.3.2. Mexico High-Performance Textile Market Outlook
 - 8.3.2.1. Market Size & Forecast
 - 8.3.2.1.1. By Value
 - 8.3.2.2. Market Share & Forecast
 - 8.3.2.2.1. By Fiber Type
 - 8.3.2.2.2. By End User
 - 8.3.3. Canada High-Performance Textile Market Outlook
 - 8.3.3.1. Market Size & Forecast
 - 8.3.3.1.1. By Value
 - 8.3.3.2. Market Share & Forecast
 - 8.3.3.2.1. By Fiber Type
 - 8.3.3.2.2. By End User

9. SOUTH AMERICA HIGH-PERFORMANCE TEXTILE MARKET OUTLOOK

- 9.1. Market Size & Forecast
 - 9.1.1. By Value
- 9.2. Market Share & Forecast

- 9.2.1. By Fiber Type
- 9.2.2. By End User
- 9.2.3. By Country
- 9.3. South America: Country Analysis
 - 9.3.1. Brazil High-Performance Textile Market Outlook
 - 9.3.1.1. Market Size & Forecast
 - 9.3.1.1.1. By Value
 - 9.3.1.2. Market Share & Forecast
 - 9.3.1.2.1. By Fiber Type
 - 9.3.1.2.2. By End User
 - 9.3.2. Argentina High-Performance Textile Market Outlook
 - 9.3.2.1. Market Size & Forecast
 - 9.3.2.1.1. By Value
 - 9.3.2.2. Market Share & Forecast
 - 9.3.2.2.1. By Fiber Type
 - 9.3.2.2.2. By End User
 - 9.3.3. Colombia High-Performance Textile Market Outlook
 - 9.3.3.1. Market Size & Forecast
 - 9.3.3.1.1. By Value
 - 9.3.3.2. Market Share & Forecast
 - 9.3.3.2.1. By Fiber Type
 - 9.3.3.2.2. By End User

10. MIDDLE EAST AND AFRICA HIGH-PERFORMANCE TEXTILE MARKET OUTLOOK

- 10.1. Market Size & Forecast
 - 10.1.1. By Value
- 10.2. Market Share & Forecast
 - 10.2.1. By Fiber Type
 - 10.2.2. By End User
 - 10.2.3. By Country
- 10.3. MEA: Country Analysis
 - 10.3.1. South Africa High-Performance Textile Market Outlook
 - 10.3.1.1. Market Size & Forecast
 - 10.3.1.1.1. By Value
 - 10.3.1.2. Market Share & Forecast
 - 10.3.1.2.1. By Fiber Type
 - 10.3.1.2.2. By End User

10.3.2. Saudi Arabia High-Performance Textile Market Outlook

10.3.2.1. Market Size & Forecast

10.3.2.1.1. By Value

10.3.2.2. Market Share & Forecast

10.3.2.2.1. By Fiber Type

10.3.2.2.2. By End User

10.3.3. UAE High-Performance Textile Market Outlook

10.3.3.1. Market Size & Forecast

10.3.3.1.1. By Value

10.3.3.2. Market Share & Forecast

10.3.3.2.1. By Fiber Type

10.3.3.2.2. By End User

11. MARKET DYNAMICS

11.1. Drivers

11.2. Challenges

12. MARKET TRENDS & DEVELOPMENTS

12.1. Recent Developments

12.2. Product Launches

12.3. Mergers & Acquisitions

13. GLOBAL HIGH-PERFORMANCE TEXTILE MARKET: SWOT ANALYSIS

14. PORTER'S FIVE FORCES ANALYSIS

14.1. Competition in the Industry

14.2. Potential of New Entrants

14.3. Power of Suppliers

14.4. Power of Customers

14.5. Threat of Substitute Product

15. PESTLE ANALYSIS

16. COMPETITIVE LANDSCAPE

16.1. Arville Textiles Limited

- 16.1.1. Business Overview
- 16.1.2. Company Snapshot
- 16.1.3. Products & Services
- 16.1.4. Financials (As Reported)
- 16.1.5. Recent Developments
- 16.2. Asahi Kasei Corporation
- 16.3. Avient Corporation
- 16.4. DuPont de Nemours, Inc.
- 16.5. Freudenberg Performance Materials Holding GmbH
- 16.6. Hexcel Corporation
- 16.7. High Performance Textiles Private Limited
- 16.8. Huvis Corp.
- 16.9. Kolon Industries, Inc.
- 16.10. Mitsui Chemicals India Pvt. Ltd.

17. STRATEGIC RECOMMENDATIONS

18. ABOUT US & DISCLAIMER

I would like to order

Product name: High-Performance Textile Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Fiber Type (Aramid Fiber, Carbon Fiber, Glass Fiber, High Strength Polyethylene Fiber, Aromatic Polyester Fiber, Others), By End User (Aerospace and Defense, Automotive and Transportation, Sports, Energy, Chemical, Others), By Region and Competition, 2019-2029F

Product link: <https://marketpublishers.com/r/HDB64CEA08BFEN.html>

Price: US\$ 4,900.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/HDB64CEA08BFEN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below
and fax the completed form to +44 20 7900 3970