

Carbon Felt and Graphite Felt Market Outlook - Forecast Trends, Market Size, Share and Growth Analysis Report (2025-2034)

Market Report | 2025-08-11 | 158 pages | EMR Inc.

AVAILABLE LICENSES:

- Single User License \$3599.00
- Five User License \$4249.00
- Corporate License \$5099.00

Report description:

The global carbon felt and graphite felt market value is expected to grow at a CAGR of 8.30% in the forecast period of 2025-2034.

Global Carbon Felt and Graphite Felt Market Growth

Carbon felt and graphite felt is a flexible high-temperature refractory material ideal for intense temperature insulation. These are commonly used as electrodes and cathodes with a wide range of applications, including various battery designs and insulation for vacuum and inert gas furnaces.

The carbon and graphite felt market dynamics and trends are being driven by their exceptional advantages. Carbon felt provides excellent thermal insulation, it is lightweight, flexible, and resistant to chemicals, while graphite felt stands out for its superior thermal and electrical conductivity, durability at extreme temperatures, and corrosion resistance. Both materials are essential in high-temperature and specialized sectors such as aerospace and electronics.

Global Carbon Felt and Graphite Felt Market Analysis

The Asia Pacific region is expected to significantly drive the carbon felt and graphite felt industry revenue. Factors like high demand for heat insulation and batteries and favourable government initiatives, with increased investments in infrastructure-friendly and energy-saving approaches in countries like India and China, have led to the increased demand for the carbon felt and graphite felt market.

In the Asia Pacific region, China leads in both the production and consumption of industrial heating systems and furnaces, further reinforcing the carbon felt and graphite felt market demand in this region.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Carbon Felt and Graphite Felt Industry Outlook

According to USITC and USDOC data, in 2021, the U.S. imported USD 62,050 million worth of semiconductors. Malaysia was the largest importer with USD 19,213 million (31%), followed by Taiwan at USD 11,973 million (19.3%), and South Korea at USD 10,099 million (16.3%). Vietnam provided USD 5,216 million (8.4%), while China imported USD 3,092 million (5%). The Philippines and Thailand contributed USD 2,678 million (4.3%) and USD 1,491 million (2.4%) to the market, respectively. Japan's imports totalled USD 996 million (1.6%), while the rest of the world accounted for USD 7,290 million (11.7%). These contributions significantly drive the carbon felt and graphite felt market revenue as both materials excel under high temperatures, making them ideal for semiconductor fabrication processes that need precise thermal management.

According to BP Energy, North America's renewable energy consumption increased from 6.52 exajoules in 2019 to 7.04 exajoules in 2020. The United States was the primary driver of this growth, with consumption rising from 5.71 exajoules in 2019 to 6.15 exajoules in 2020, a 7.4% annual growth rate. Canada's consumption grew from 0.51 to 0.54 exajoules, reflecting a 4.1% growth rate. Mexico saw the highest growth rate in the region, with a 19.9% increase from 0.30 exajoules in 2019 to 0.36 exajoules in 2020.

In 2020, Europe's renewable energy consumption increased from 8.24 exajoules in 2019 to 8.94 exajoules, an 8.2% rise. Germany led with 2.21 exajoules, up 4.7% from 2.10 in 2019. The UK followed, with consumption rising from 1.07 to 1.20 exajoules, a 9.9% increase. France's consumption grew from 0.63 to 0.68 exajoules, a 7.5% rise. Italy saw a 2.6% increase, from 0.65 to 0.67 exajoules. Spain's consumption grew from 0.73 to 0.77 exajoules, a 4.8% increase. Sweden's consumption increased from 0.36 to 0.41 exajoules, marking a 14% rise and accounting for 1.3% of the total. This growth contributes to the carbon felt and graphite felt industry revenue, as these materials offer exceptional thermal insulation that is vital for improving the efficiency of renewable energy systems by reducing heat loss.

The growth of the carbon felt and graphite felt industry is driven by their excellent thermal and electrical conductivity, which enhances their value in high-temperature and specialised applications.

- These materials exhibit excellent thermal stability and chemical resistance, ensuring long-term reliability in harsh environments.
- The flexibility and adaptability of carbon and graphite felt make them suitable for diverse industrial uses, including aerospace and electronics.

Production and material costs can be significant, affecting market accessibility and pricing.

- Niche applications may lead to lower market penetration and awareness.
- The specialised manufacturing processes can be complex and resource-intensive.

Innovations in production techniques can reduce costs and enhance performance.

- Increased demand in aerospace, electronics, and renewable energy sectors presents growth opportunities in the carbon felt and graphite felt market.
- Expanding into developing regions can drive market expansion.

Market instability and economic downturns can impact demand and investment.

- Rising competition from alternative materials or new technologies can affect carbon felt and graphite felt market share.
- Stringent regulations or environmental policies could influence production processes and costs.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Key Players in the Global Carbon Felt and Graphite Felt Market and Their Key Initiatives

CGT Carbon GmbH

- Developed high-purity dense graphite products to meet the growing demand of the carbon felt and graphite felt market.
- Launched advanced titanium carbide coating.

Morgan Advanced Material plc

- Collaborated with Penn State University.
- Developed Advanced Thermal Insulation Materials.

Sinotek Materials Co., Ltd.

- Enhanced battery testing systems for improved energy storage solutions.
- Increased production capacity to 200 tons for carbon felt and 70 tons for graphite felt to capture the carbon felt and graphite felt market opportunities.

Chemshine Carbon Co., Ltd.

- Developed high-purity graphite felt products for semiconductor industry applications.
- Launched advanced carbon felt for high-temperature vacuum furnace insulation.

Global Carbon Felt and Graphite Felt Industry Segmentation

The EMR's report titled "Carbon Felt and Graphite Felt Report and Forecast 2025-2034" offers a detailed analysis of the market based on the following segments:

Market Breakup by Raw Material

- Polyacrylonitrile (PAN)
- Rayon
- Others

Market Breakup by Type

- Carbon Felt
- Graphite Felt

Market Breakup by Application

- Heat Insulation
- Batteries
- Semiconductors
- Absorptive Materials
- Others

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Market Breakup by Region

- North America
- Europe
- Asia Pacific
- Latin America
- Middle East and Africa

Carbon Felt and Graphite Felt Market Share

The growth of the carbon felt and graphite felt industry brings notable advantages for heat insulation and battery applications. For heat insulation, these materials deliver excellent thermal efficiency, withstand high temperatures, and offer flexibility, effectively reducing heat loss and boosting energy efficiency.

In batteries, graphite felt enhances energy transfer with its superior electrical conductivity, while both materials provide essential thermal stability and durability for optimal performance and safety. Their resistance to chemicals and long-term stability also enhance the reliability and lifespan of batteries, driving increased carbon felt and graphite felt demand growth.

Leading Companies in the Carbon Felt and Graphite Felt Market

The companies specialise in advanced ceramics, carbon, and graphite materials, offering high-performance solutions for aerospace, energy, and healthcare, with a focus on innovation and efficiency.

- CGT Carbon GmbH
- Morgan Advanced Material plc
- Sinotek Materials Co., Ltd.
- Beijing Great Wall Co., Ltd.
- Chemshine Carbon Co., Ltd.

Table of Contents:

- 1 Executive Summary
 - 1.1 Market Size 2024-2025
 - 1.2 Market Growth 2025(F)-2034(F)
 - 1.3 Key Demand Drivers
 - 1.4 Key Players and Competitive Structure
 - 1.5 Industry Best Practices
 - 1.6 Recent Trends and Developments
 - 1.7 Industry Outlook
- 2 Market Overview and Stakeholder Insights
 - 2.1 Market Trends
 - 2.2 Key Verticals
 - 2.3 Key Regions
 - 2.4 Supplier Power
 - 2.5 Buyer Power
 - 2.6 Key Market Opportunities and Risks

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 2.7 Key Initiatives by Stakeholders
- 3 Economic Summary
 - 3.1 GDP Outlook
 - 3.2 GDP Per Capita Growth
 - 3.3 Inflation Trends
 - 3.4 Democracy Index
 - 3.5 Gross Public Debt Ratios
 - 3.6 Balance of Payment (BoP) Position
 - 3.7 Population Outlook
 - 3.8 Urbanisation Trends
- 4 Country Risk Profiles
 - 4.1 Country Risk
 - 4.2 Business Climate
- 5 Global Carbon Felt and Graphite Felt Market Analysis
 - 5.1 Key Industry Highlights
 - 5.2 Global Carbon Felt and Graphite Felt Historical Market (2018-2024)
 - 5.3 Global Carbon Felt and Graphite Felt Market Forecast (2025-2034)
 - 5.4 Global Carbon Felt and Graphite Felt Market by Raw Material
 - 5.4.1 Polyacrylonitrile (PAN)
 - 5.4.1.1 Historical Trend (2018-2024)
 - 5.4.1.2 Forecast Trend (2025-2034)
 - 5.4.2 Rayon
 - 5.4.2.1 Historical Trend (2018-2024)
 - 5.4.2.2 Forecast Trend (2025-2034)
 - 5.4.3 Others
 - 5.5 Global Carbon Felt and Graphite Felt Market by Type
 - 5.5.1 Carbon Felt
 - 5.5.1.1 Historical Trend (2018-2024)
 - 5.5.1.2 Forecast Trend (2025-2034)
 - 5.5.2 Graphite Felt
 - 5.5.2.1 Historical Trend (2018-2024)
 - 5.5.2.2 Forecast Trend (2025-2034)
 - 5.6 Global Carbon Felt and Graphite Felt Market by Application
 - 5.6.1 Heat Insulation
 - 5.6.1.1 Historical Trend (2018-2024)
 - 5.6.1.2 Forecast Trend (2025-2034)
 - 5.6.2 Batteries
 - 5.6.2.1 Historical Trend (2018-2024)
 - 5.6.2.2 Forecast Trend (2025-2034)
 - 5.6.3 Semiconductors
 - 5.6.3.1 Historical Trend (2018-2024)
 - 5.6.3.2 Forecast Trend (2025-2034)
 - 5.6.4 Absorptive Materials
 - 5.6.4.1 Historical Trend (2018-2024)
 - 5.6.4.2 Forecast Trend (2025-2034)
 - 5.6.5 Others
 - 5.7 Global Carbon Felt and Graphite Felt Market by Region

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 5.7.1 North America
 - 5.7.1.1 Historical Trend (2018-2024)
 - 5.7.1.2 Forecast Trend (2025-2034)
- 5.7.2 Europe
 - 5.7.2.1 Historical Trend (2018-2024)
 - 5.7.2.2 Forecast Trend (2025-2034)
- 5.7.3 Asia Pacific
 - 5.7.3.1 Historical Trend (2018-2024)
 - 5.7.3.2 Forecast Trend (2025-2034)
- 5.7.4 Latin America
 - 5.7.4.1 Historical Trend (2018-2024)
 - 5.7.4.2 Forecast Trend (2025-2034)
- 5.7.5 Middle East and Africa
 - 5.7.5.1 Historical Trend (2018-2024)
 - 5.7.5.2 Forecast Trend (2025-2034)
- 6 North America Carbon Felt and Graphite Felt Market Analysis
 - 6.1 United States of America
 - 6.1.1 Historical Trend (2018-2024)
 - 6.1.2 Forecast Trend (2025-2034)
 - 6.2 Canada
 - 6.2.1 Historical Trend (2018-2024)
 - 6.2.2 Forecast Trend (2025-2034)
- 7 Europe Carbon Felt and Graphite Felt Market Analysis
 - 7.1 United Kingdom
 - 7.1.1 Historical Trend (2018-2024)
 - 7.1.2 Forecast Trend (2025-2034)
 - 7.2 Germany
 - 7.2.1 Historical Trend (2018-2024)
 - 7.2.2 Forecast Trend (2025-2034)
 - 7.3 France
 - 7.3.1 Historical Trend (2018-2024)
 - 7.3.2 Forecast Trend (2025-2034)
 - 7.4 Italy
 - 7.4.1 Historical Trend (2018-2024)
 - 7.4.2 Forecast Trend (2025-2034)
 - 7.5 Others
- 8 Asia Pacific Carbon Felt and Graphite Felt Market Analysis
 - 8.1 China
 - 8.1.1 Historical Trend (2018-2024)
 - 8.1.2 Forecast Trend (2025-2034)
 - 8.2 Japan
 - 8.2.1 Historical Trend (2018-2024)
 - 8.2.2 Forecast Trend (2025-2034)
 - 8.3 India
 - 8.3.1 Historical Trend (2018-2024)
 - 8.3.2 Forecast Trend (2025-2034)
 - 8.4 ASEAN

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 8.4.1 Historical Trend (2018-2024)
- 8.4.2 Forecast Trend (2025-2034)
- 8.5 Australia
 - 8.5.1 Historical Trend (2018-2024)
 - 8.5.2 Forecast Trend (2025-2034)
- 8.6 Others
- 9 Latin America Carbon Felt and Graphite Felt Market Analysis
 - 9.1 Brazil
 - 9.1.1 Historical Trend (2018-2024)
 - 9.1.2 Forecast Trend (2025-2034)
 - 9.2 Argentina
 - 9.2.1 Historical Trend (2018-2024)
 - 9.2.2 Forecast Trend (2025-2034)
 - 9.3 Mexico
 - 9.3.1 Historical Trend (2018-2024)
 - 9.3.2 Forecast Trend (2025-2034)
 - 9.4 Others
- 10 Middle East and Africa Carbon Felt and Graphite Felt Market Analysis
 - 10.1 Saudi Arabia
 - 10.1.1 Historical Trend (2018-2024)
 - 10.1.2 Forecast Trend (2025-2034)
 - 10.2 United Arab Emirates
 - 10.2.1 Historical Trend (2018-2024)
 - 10.2.2 Forecast Trend (2025-2034)
 - 10.3 Nigeria
 - 10.3.1 Historical Trend (2018-2024)
 - 10.3.2 Forecast Trend (2025-2034)
 - 10.4 South Africa
 - 10.4.1 Historical Trend (2018-2024)
 - 10.4.2 Forecast Trend (2025-2034)
 - 10.5 Others
- 11 Market Dynamics
 - 11.1 SWOT Analysis
 - 11.1.1 Strengths
 - 11.1.2 Weaknesses
 - 11.1.3 Opportunities
 - 11.1.4 Threats
 - 11.2 Porter's Five Forces Analysis
 - 11.2.1 Supplier's Power
 - 11.2.2 Buyer's Power
 - 11.2.3 Threat of New Entrants
 - 11.2.4 Degree of Rivalry
 - 11.2.5 Threat of Substitutes
 - 11.3 Key Indicators for Demand
 - 11.4 Key Indicators for Price
- 12 Value Chain Analysis
- 13 Competitive Landscape

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 13.1 Supplier Selection
- 13.2 Key Global Players
- 13.3 Key Regional Players
- 13.4 Key Player Strategies
- 13.5 Company Profiles
 - 13.5.1 CGT Carbon GmbH
 - 13.5.1.1 Company Overview
 - 13.5.1.2 Product Portfolio
 - 13.5.1.3 Demographic Reach and Achievements
 - 13.5.1.4 Certifications
 - 13.5.2 Morgan Advanced Materials plc
 - 13.5.2.1 Company Overview
 - 13.5.2.2 Product Portfolio
 - 13.5.2.3 Demographic Reach and Achievements
 - 13.5.2.4 Certifications
 - 13.5.3 Sinotek Materials Co., Ltd.
 - 13.5.3.1 Company Overview
 - 13.5.3.2 Product Portfolio
 - 13.5.3.3 Demographic Reach and Achievements
 - 13.5.3.4 Certifications
 - 13.5.4 Beijing Great Wall Co.Ltd.
 - 13.5.4.1 Company Overview
 - 13.5.4.2 Product Portfolio
 - 13.5.4.3 Demographic Reach and Achievements
 - 13.5.4.4 Certifications
 - 13.5.5 Chemshine Carbon Co.,Ltd.
 - 13.5.5.1 Company Overview
 - 13.5.5.2 Product Portfolio
 - 13.5.5.3 Demographic Reach and Achievements
 - 13.5.5.4 Certifications
 - 13.5.6 Others

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Carbon Felt and Graphite Felt Market Outlook - Forecast Trends, Market Size, Share and Growth Analysis Report (2025-2034)

Market Report | 2025-08-11 | 158 pages | EMR Inc.

To place an Order with Scotts International:

- Print this form
- Complete the relevant blank fields and sign
- Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	\$3599.00
	Five User License	\$4249.00
	Corporate License	\$5099.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>
		Date	<input type="text" value="2026-03-05"/>
		Signature	

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com



Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com