

High-Temperature Composite Resins Market by Resin Type (BMI, Cyanate Ester, Polyimide, Thermoplastics, and Others), by End-Use Industry Type (Aerospace & Defense, Transportation, and Others), by Manufacturing Process Type (Prepreg Layup, RTM, and Others), and by Region (North America, Europe, Asia-Pacific, and Rest of the World), Trend, Forecast, Competitive Analysis, and Growth Opportunity: 2018-2023

<https://marketpublishers.com/r/H0AE834E4A1EN.html>

Date: July 2018

Pages: 228

Price: US\$ 4,290.00 (Single User License)

ID: H0AE834E4A1EN

Abstracts

This report, from Stratview Research, studies the global high-temperature composite resins market over the trend period of 2012 to 2017 and forecast period of 2018 to 2023. The report provides detailed insights into the market dynamics to enable informed business decision making and growth strategy formulation based on the opportunities present in the market.

The High-Temperature Composite Resins Market: Highlights

Resins used for composite applications, which can withstand extreme heat and temperature environments, are considered as high-temperature composite resins. High-temperature resins have a long history in the composites industry with usage in military and commercial aircraft engines. Nowadays, composite stakeholders are betting on these resin technologies in other applications including airframe and other hot sections.

The global high-temperature composite resins market is projected to grow at a healthy rate over the next five years to reach US\$ 168.3 million in 2023. Increasing penetration

of composites in aerospace and automotive industries coupled with a greater demand for high-temperature composites, increasing production rates of high-temperature composite rich F-35 aircraft, and superior performance benefits of high-temperature resins are the key factors proliferating the growth of the market.

High-temperature resin excels the performance of composite parts and enhances parts' ability to withstand extreme heat and harsh environmental conditions. Also, the resin performs better under fatigue compared to more brittle ceramics and are lighter than metals; therefore, manufacturers have started adopting high-temperature resins instead of using ceramics and exotic metals. The aircraft engine is one of the biggest application areas of high-temperature composite resins as it is prone to extreme temperature and heat environments.

Newer jet engines and 5th generation fighter aircraft have pushed service temperature into the range of 600°F to 1000°F (316°C to 538°C), along with an increasing demand for composite materials in order to achieve excellent strength-to-weight ratio. Lockheed Martin's F-35 is among the best-selling fifth-generation aircraft, which has incorporated high-temperature composite resins. About 35% of the aircraft is made of composites and approximately 50% of which is high-temperature composites.

Based on the resin type, the high-temperature composite resins market is segmented as BMI, Cyanate Ester, Polyimide, Thermoplastics, and Others. BMI resin is likely to remain the most dominant high-temperature resin type in terms of volume over the next five years. It is preferably used in military aircraft engines as well as airframe applications, nacelles of business jet engines, tooling prepreg, and hot-air ducts. However, polyimide resin is likely to remain the largest resin type in terms of value during the forecast period. Polyimide composite parts can withstand continuous use up to 315°C (600°F) and intermittent use up to 480°C (900°F) and exhibit extremely high dimensional stability at elevated temperatures.

The global high-temperature composite resins market is segmented based on the end-use industry type as Aerospace & Defense, Transportation, and Others. Aerospace & defense is likely to remain the most dominant segment during the forecast period. Increasing production rate of high-temperature composite rich fighter aircraft F-35 (Joint Strike Fighter) is likely to give an impetus to the demand for high-temperature composites in the industry. Lockheed Martin announced it has increased the deliveries of F-35 by 40% in 2017 than the previous year. The company is likely to further increase its annual deliveries from 66 aircraft in 2017 to an expected delivery of 160 aircraft in 2023. Another key application area of high-temperature composite resin is tooling

prepreg, where BMI resin is gaining traction.

Based on the manufacturing process type, the high-temperature composite resins market is segmented as Prepreg Layup, RTM, and Others. Prepreg layup is expected to remain the most dominant process for manufacturing composite parts made using high-temperature resins. It is the most widely preferred process for manufacturing of critical parts in the aerospace & defense industry, where high-temperature resin systems are used. Prepreg layup offers various advantages, such as consistent material properties, high fiber volume, flexibility in fiber orientation, low-void content, and easy to operate on complicated shapes.

Based on regions, North America is projected to remain the largest market during the forecast period, driven by the world's leading aircraft OEMs, aeroengine manufacturers, tier players, and material suppliers. The USA is the growth engine of the region's market. Lockheed Martin has opened a new manufacturing facility to produce its high-temperature composite resin rich F-35 aircraft in Pinellas Park, Florida, the USA, to raise the existing production rate. There is a total un-filled order of more than 2,691 F-35 aircraft from 12 countries out of which the USA's inventory objective is 2,456 F-35 aircraft.

Europe is projected to remain the second largest market for high-temperature composite resins during the forecast period. Dassault Aviation, BAE Systems, and Airbus Group are some of the key OEMs, which are driving the demand for high-temperature composite resins in the European market.

The supply chain of this market comprises raw material suppliers, high-temperature resin manufacturers, prepreggers & compounders, tier players, OEMs, and airlines. The key high-temperature composite resin manufacturers include Solvay S.A., TenCate Advanced Composites, Lonza Group, Hexcel Corporation, and Renegade Materials Corporation. The development of low-cost high-temperature composite resins with an ease of manufacturing processes; reduced operational cost; and formation of strategic alliances are the key strategies adopted by the players to gain a competitive edge in the market.

RESEARCH METHODOLOGY

This report offers high-quality insights and is the outcome of detailed research methodology comprising extensive secondary research, rigorous primary interviews with industry stakeholders and validation and triangulation with Stratview Research's

internal database and statistical tools. More than 700 authenticated secondary sources, such as company annual reports, fact book, press release, journals, investor presentation, white papers, patents, and articles have been leveraged to gather the data. We have conducted 10 detailed primary interviews with the market players across the value chain in all four regions and industry experts to obtain both qualitative and quantitative insights.

REPORT FEATURES

This report provides market intelligence in the most comprehensive way. The report structure has been kept such that it offers maximum business value. It provides critical insights into the market dynamics and will enable strategic decision making for the existing market players as well as those willing to enter the market. The following are the key features of the report:

Market structure: Overview, industry life cycle analysis, supply chain analysis

Market environment analysis: Growth drivers and constraints, Porter's five forces analysis, SWOT analysis

Market trend and forecast analysis

Market segment trend and forecast

Competitive landscape and dynamics: Market share, Product portfolio, New product launches, etc.

Attractive market segments and associated growth opportunities

Emerging trends

Strategic growth opportunities for the existing and new players

Key success factors

The Global High-Temperature Composite Resins Market is segmented into the following categories:

High-Temperature Composite Resins Market, By Resin Type

BMI Resin (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Cyanate Ester Resin (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Polyimide Resin (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

High-Temperature Thermoplastic Resins (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Others (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

High-Temperature Composite Resins Market, By End-Use Industry Type

Aerospace & Defense (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Transportation (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Others (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

High-Temperature Composite Resins Market, By Composite Manufacturing Process Type

Prepreg Layup (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

RTM (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

Others (Regional Analysis: North America, Europe, Asia-Pacific, and RoW)

High-Temperature Composite Resins Market, By Region

North America (Country Analysis: The USA, Canada, and Mexico)

Europe (Country Analysis: The UK, Germany, France, and Rest of Europe)

Asia-Pacific (Country Analysis: China, Japan, India, and Rest of Asia-Pacific)

Rest of the World (Country Analysis: The Middle East, Latin America, and Others)

REPORT CUSTOMIZATION OPTIONS

With this detailed report, Stratview Research offers one of the following free customization options to our respectable clients:

COMPANY PROFILING

Detailed profiling of additional market players (up to 3 players)

SWOT analysis of key players (up to 3 players)

MARKET SEGMENTATION

Current market segmentation of any one of the resin type by end-use industry

COMPETITIVE BENCHMARKING

Benchmarking of key players on the following parameters: Product portfolio, geographical reach, regional presence, and strategic alliances

Custom Research: Stratview Research offers custom research services across sectors. In case of any custom research requirement related to market assessment, competitive benchmarking, sourcing and procurement, target screening, and others, please send your inquiry at sales@stratviewresearch.com

Contents

Disclaimer
Copyright
Abbreviation
Currency Exchange
About Us
Report Scope
Report Objectives
Research Methodology
Secondary Research
Key Information Gathered from Secondary Research
Primary Research
Key Information Gathered from Primary Research
Breakdown of Primary Interviews by Region, Designation, and Value Chain Node
Data Analysis and Triangulation

1. EXECUTIVE SUMMARY

2. HIGH-TEMPERATURE COMPOSITE RESINS MARKET - OVERVIEW AND MARKET FORCES

- 2.1. Introduction
- 2.2. Market Classification
 - 2.2.1. By Resin Type
 - 2.2.2. By End-Use Industry Type
 - 2.2.3. By Manufacturing Process Type
 - 2.2.4. By Region
- 2.3. Market Drivers
- 2.4. Market Constraints
- 2.5. Supply Chain Analysis
- 2.6. Industry Life Cycle Analysis
- 2.7. PEST Analysis: Impact Assessment of Changing Business Environment
- 2.8. Porter's Five Force Model
 - 2.8.1. Bargaining Power of Suppliers
 - 2.8.2. Bargaining Power of Constraints
 - 2.8.3. Threat of New Entrants
 - 2.8.4. Threat of Substitutes
 - 2.8.5. Competitive Rivalry

2.9. SWOT Analysis

3. HIGH-TEMPERATURE (HT) COMPOSITE RESINS MARKET ANALYSIS - BY RESIN TYPE

3.1. Strategic Insights

3.2. BMI Composite Resin Market Trend and Forecast (US\$ Million & Million lbs.)

3.2.1. Regional Trend and Forecast (US\$ Million & Million lbs.)

3.3. Cyanate Ester Composite Resin Market Trend and Forecast (US\$ Million & Million lbs.)

3.3.1. Regional Trend and Forecast (US\$ Million & Million lbs.)

3.4. Polyimide Composite Resin Market Trend and Forecast (US\$ Million & Million lbs.)

3.4.1. Regional Trend and Forecast (US\$ Million & Million lbs.)

3.5. HT Thermoplastic Composite Resins Market Trend and Forecast (US\$ Million & Million lbs.)

3.5.1. Regional Trend and Forecast (US\$ Million & Million lbs.)

3.6. Other HT Composite Resins Market Trend and Forecast (US\$ Million & Million lbs.)

3.6.1. Regional Trend and Forecast (US\$ Million & Million lbs.)

4. HIGH-TEMPERATURE (HT) COMPOSITE RESINS MARKET ANALYSIS - BY END-USE INDUSTRY TYPE

4.1. Strategic Insights

4.2. Aerospace & Defense: HT Composite Resins Market Trend and Forecast (US\$ Million & Million lbs.)

4.2.1. Regional Trend and Forecast (US\$ Million & Million lbs.)

4.3. Transportation: HT Composite Resins Market Trend and Forecast (US\$ Million & Million lbs.)

4.3.1. Regional Trend and Forecast (US\$ Million & Million lbs.)

4.4. Others: HT Composite Resins Market Trend and Forecast (US\$ Million & Million lbs.)

4.4.1. Regional Trend and Forecast (US\$ Million & Million lbs.)

5. HIGH-TEMPERATURE (HT) COMPOSITE RESINS MARKET ANALYSIS - BY PROCESS TYPE

5.1. Strategic Insights

5.2. Prepreg Layup: HT Composite Resins Market Trend and Forecast (US\$ Million & Million lbs.)

- 5.2.1. Regional Trend and Forecast (US\$ Million & Million lbs.)
- 5.3. RTM: HT Composite Resins Market Trend and Forecast (US\$ Million & Million lbs.)
 - 5.3.1. Regional Trend and Forecast (US\$ Million & Million lbs.)
- 5.4. Others: HT Composite Resins Market Trend and Forecast (US\$ Million & Million lbs.)
 - 5.4.1. Regional Trend and Forecast (US\$ Million & Million lbs.)

6. HIGH-TEMPERATURE (HT) COMPOSITE RESINS MARKET ANALYSIS - BY REGION

6.1. Strategic Insights

6.2. North American HT Composite Resins Market Analysis

6.2.1. North American HT Composite Resins Market T&F, by Country (US\$ Million & Million lbs.)

6.2.1.1. The USA: HT Composite Resins Market T&F (US\$ Million & Million lbs.)

6.2.1.2. Canada: HT Composite Resins Market T&F (US\$ Million & Million lbs.)

6.2.1.3. Mexico: HT Composite Resins Market T&F (US\$ Million & Million lbs.)

6.2.2. North American HT Composite Resins Market T&F, by Resin Type (US\$ Million & Million lbs.)

6.2.3. North American HT Composite Resins Market T&F, by End-Use Industry Type (US\$ Million & Million lbs.)

6.2.4. North American HT Composite Resins Market T&F, by Process Type (US\$ Million & Million lbs.)

6.3. European HT Composite Resins Market Analysis

6.3.1. European HT Composite Resins Market T&F, by Country (US\$ Million & Million lbs.)

6.3.1.1. The UK: HT Composite Resins Market T&F (US\$ Million & Million lbs.)

6.3.1.2. Germany: HT Composite Resins Market T&F (US\$ Million & Million lbs.)

6.3.1.3. France: HT Composite Resins Market T&F (US\$ Million & Million lbs.)

6.3.1.4. Rest of Europe: HT Composite Resins Market T&F (US\$ Million & Million lbs.)

6.3.2. European HT Composite Resins Market T&F, by Resin Type (US\$ Million & Million lbs.)

6.3.3. European HT Composite Resins Market T&F, by End-Use Industry Type (US\$ Million & Million lbs.)

6.3.4. European HT Composite Resins Market T&F, by Process Type (US\$ Million & Million lbs.)

6.4. Asia-Pacific's HT Composite Resins Market Analysis

6.4.1. Asia-Pacific's HT Composite Resins Market T&F, by Country (US\$ Million & Million lbs.)

Million lbs.)

6.4.1.1. China: HT Composite Resins Market T&F (US\$ Million & Million lbs.)

6.4.1.2. Japan: HT Composite Resins Market T&F (US\$ Million & Million lbs.)

6.4.1.3. India: HT Composite Resins Market T&F (US\$ Million & Million lbs.)

6.4.1.4. Rest of APAC: HT Composite Resins Market T&F (US\$ Million & Million lbs.)

6.4.2. Asia-Pacific's HT Composite Resins Market T&F, by Resin Type (US\$ Million & Million lbs.)

6.4.3. Asia-Pacific's HT Composite Resins Market T&F, by End-Use Industry Type (US\$ Million & Million lbs.)

6.4.4. Asia-Pacific's HT Composite Resins Market T&F, by Process Type (US\$ Million & Million lbs.)

6.5. Rest of World's (RoW) HT Composite Resins Market Analysis

6.5.1. RoW's HT Composite Resins Market T&F, by Sub-Region (US\$ Million & Million lbs.)

6.5.1.1. The Middle East: HT Composite Resins Market T&F (US\$ Million & Million lbs.)

6.5.1.2. Latin America: HT Composite Resins Market T&F (US\$ Million & Thousand Units)

6.5.1.3. Others: HT Composite Resins Market T&F (US\$ Million & Thousand Units)

6.5.2. RoW's HT Composite Resins Market T&F, by Resin Type (US\$ Million & Million lbs.)

6.5.3. RoW's HT Composite Resins Market T&F, by End-Use Industry Type (US\$ Million & Million lbs.)

6.5.4. RoW's HT Composite Resins Market T&F, by Process Type (US\$ Million & Million lbs.)

7. COMPETITIVE ANALYSIS

7.1. Strategic Insights

7.2. Product Portfolio Analysis

7.3. Geographical Presence

7.4. New Product Launches

7.5. Strategic Alliances: Mergers and Acquisitions, Joint Ventures, Collaborations etc.

7.6. Market Share Analysis

8. STRATEGIC GROWTH OPPORTUNITIES

8.1. Strategic Insights

8.2. Market Attractive Analysis

- 8.2.1. Market Attractiveness by Resin Type
- 8.2.2. Market Attractiveness by End-Use Industry Type
- 8.2.3. Market Attractiveness by Manufacturing Process Type
- 8.2.4. Market Attractiveness by Region
- 8.2.5. Market Attractiveness by Country
- 8.3. Growth Matric Analysis
- 8.4. Emerging Trends
- 8.5. Key Success Factors

9. COMPANY PROFILES OF KEY PLAYERS

- 9.1. Hexcel Corporation
- 9.2. Hexion Inc.
- 9.3. Solvay S.A.
- 9.4. Renegade Materials Corporation
- 9.5. Huntsman Corporation
- 9.6. Mitsui Chemicals Inc.
- 9.7. Koninklijke TenCate nv
- 9.8. Lonza Group
- 9.9. Nexam Chemical Holding AB

I would like to order

Product name: High-Temperature Composite Resins Market by Resin Type (BMI, Cyanate Ester, Polyimide, Thermoplastics, and Others), by End-Use Industry Type (Aerospace & Defense, Transportation, and Others), by Manufacturing Process Type (Prepreg Layup, RTM, and Others), and by Region (North America, Europe, Asia-Pacific, and Rest of the World), Trend, Forecast, Competitive Analysis, and Growth Opportunity: 2018-2023

Product link: <https://marketpublishers.com/r/H0AE834E4A1EN.html>

Price: US\$ 4,290.00 (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/H0AE834E4A1EN.html>