

Carbon Fibers: Market Research Report

<https://marketpublishers.com/r/C2393EF5886EN.html>

Date: February 2018

Pages: 278

Price: US\$ 5,450.00 (Single User License)

ID: C2393EF5886EN

Abstracts

This report analyzes the worldwide markets for Carbon Fibers in Metric Tons. The Global market is further analyzed by the following End-Use Application Segments: Aerospace and Defense, Sports Goods, Industrial Applications, Wind Energy, Automotive, and Others. The report provides separate comprehensive analytics for the US, Canada, Japan, Europe, Asia-Pacific, and Rest of World. Annual estimates and forecasts are provided for the period 2016 through 2024. Also, a five-year historic analysis is provided for these markets. Market data and analytics are derived from primary and secondary research.

Company profiles are primarily based on public domain information including company URLs.

The report profiles 33 companies including many key and niche players such as -

Cytec Solvay Group

DowAksa

Formosa Plastics Corporation

Hexcel Corporation

Hyosung Corporation

Mitsubishi Chemical Holdings Corporation

Contents

I. INTRODUCTION, METHODOLOGY & PRODUCT DEFINITIONS

II. EXECUTIVE SUMMARY

1. INDUSTRY OVERVIEW

Carbon Fiber – An Ideal Lightweight & High-Strength Material for Commercial & Industrial Applications

Current and Future Analysis

Aerospace & Defense Sector Leads Carbon Fiber Usage

Carbon Fiber: Production Scenario

Table 1. Global Carbon Fiber Market (2016): Percentage Breakdown of Production Capacity by Region/Country (includes corresponding Graph/Chart)

Table 2. Global PAN-based Carbon Fiber Capacity (2015): Percentage Breakdown of Volume for Small-Tow and Large-Tow Carbon Fibers (includes corresponding Graph/Chart)

Table 3. Global Fiber Production by Tow Size (2013-2017): Percentage Breakdown of Volume for Small Tow (24K) Carbon Fibers (includes corresponding Graph/Chart)

Table 4. Global Carbon Fiber Production by Fiber Form (2015): Percentage Breakdown of Volume for Thermoset UD Prepreg, Thermoset Fabric Prepreg, Molding Compounds, Woven Fabric, Raw Fiber and Thermoplastic Prepreg (includes corresponding Graph/Chart)

PAN-based Carbon Fibers – A Major Share of the Market

Carbon Fiber Composites Market: Steady Growth Prospects

Table 5. Global Demand for Carbon Fiber Reinforced Plastics (CFRP) in Thousand mt for 2013-2017E (includes corresponding Graph/Chart)

Table 6. Global Composites Market by Type (2016): Percentage Breakdown of Value

Sales for Aramid Fiber Reinforced Plastics, Carbon Fiber Reinforced Plastics and Glass Fiber Reinforced Plastics (includes corresponding Graph/Chart)

Table 7. Global CRP Market (2016): Percentage Breakdown of CRP Volume Demand by Production Process (includes corresponding Graph/Chart)

Table 8. Global Carbon Composites Market by End-Use Sector (2016): Percentage Share Breakdown of Volume Demand for Aerospace & Defense, Automotive, Civil Engineering, Marine, Sports & Leisure, Wind Power and Others (includes corresponding Graph/Chart)

Carbon Fiber Prepregs Market – Aerospace Sector to Drive Demand
Cost of Carbon Fiber – A Major Limiting Factor
Improving Economy Buys General Market Optimism

Table 9. World Real GDP Growth Rates (%) by Country/Region (2016-2018) (includes corresponding Graph/Chart)

2. COMPETITIVE LANDSCAPE

Intense Competition Characterizes Carbon Fibers Market

Table 10. Leading Players in the Global Carbon Fiber Market (2016): Ranked by Production Capacities (in kt per annum) for Cytec, Dowaksa, Formosa Plastics Corporation, Henshen Co. Ltd., Hexcel, Mitsubishi, SGL Group, Teijin, Toray and Zhongfu Shenying (includes corresponding Graph/Chart)

Table 11. Leading Carbon Fiber Companies Worldwide (2016): Percentage Breakdown of Revenues for Formosa Plastics, Hexcel, Mitsubishi Chemical, SGL Carbon, Toho, Toray and Others (includes corresponding Graph/Chart)

Table 12. Leading Producers of PAN Carbon Fiber (2016): Percentage Breakdown of Production Capacity for DowAksa, Formosa Plastics, Hexcel, Mitsubishi Rayon, SGL, Teijin, Toray and Others (includes corresponding Graph/Chart)

Table 13. Leading Producers of Pitch-based Carbon Fiber (2016): Percentage Breakdown of Production Capacity for Cytec Solvay, Mitsubishi Rayon and Nippon

Graphite Fiber (includes corresponding Graph/Chart)

Table 14. Leading Players in the Global Small-Tow Carbon Fiber Market (2016): Percentage Breakdown of Production Capacity for Formosa Plastics, Hexcel, Mitsubishi, Teijin, Toray and Others (includes corresponding Graph/Chart)

Table 15. Leading Players in the Global Large-Tow Carbon Fiber Market (2016): Percentage Breakdown of Production Capacity for Formosa Plastics, Hexcel, Mitsubishi, Teijin, Toray and Others (includes corresponding Graph/Chart)

Proprietary Nature of Precursor in CF Manufacturing

Acrylonitrile – The Major Raw Material for PAN Carbon Fiber Precursor

Carbon Fiber Majors Focus on Capacity Expansions Initiatives

Asian Companies Dominate Aerospace-Grade Carbon Fiber Production

Leading Producers Invest in Capacity Expansions to Meet the Needs of Auto Industry

3. GROWTH DRIVERS, MARKET TRENDS & ISSUES

Aerospace & Defense Sector: Rising Significance of Carbon Fiber as Manufacturing Material

Table 16. Raw Material Use in Aircraft Manufacturing Worldwide (2016): Percentage Breakdown of Volume Demand by Type of Raw Material (includes corresponding Graph/Chart)

Rising Demand for New Commercial Aircraft Sets the Tone for Carbon Fibers Market

Table 17. Combined Aircraft Deliveries of Boeing and Airbus (2010-2016) (includes corresponding Graph/Chart)

Table 18. New Aircraft Deliveries Worldwide by Geographic Region (2017-2036): Percentage Breakdown of Number of Deliveries for Africa, Asia, Europe, Latin America, Middle East and North America (includes corresponding Graph/Chart)

Increasing Share of Carbon Composites in Commercial Aircraft

Table 19. Aerospace Demand for Carbon Fiber in Various Aircraft Types (2014)
(includes corresponding Graph/Chart)

Table 20. Use of Carbon Fiber Composites in Comparison to Other Materials in Boeing 787 Airplanes (includes corresponding Graph/Chart)

Table 21. Material Composition of Airbus A350 XWB Aircraft - Percentage Mix of Composites Compared to Other Materials (includes corresponding Graph/Chart)

Carbon Fiber Composites Find Favor in Aircraft Interiors

Carbon Fiber Emerges as a Material of Choice Replacing Steel in Automotive Industry

Table 22. Material Mix in a Standard Vehicle (2015) - Percentage Breakdown of Material Use by Weight for Aluminum, Iron, Plastic/Composites, Rubber, Steel and Others (includes corresponding Graph/Chart)

Table 23. Lightweighting Agenda of Major Automotive OEMs - Weight Reduction Targets (in kg) by Model for the Period 2013 through 2020

Viability of Carbon Fiber for Car Frames

Carbon Fiber Plays Critical Role in Manufacture of Lightweight Vehicles

Environmental Regulations Governing Automotive Industry to Drive Demand

Table 24. Long-Term Carbon Dioxide Emission Reduction Targets Established for Automotive Industry in Select Countries (includes corresponding Graph/Chart)

US Fuel Economy Standards 2016 & 2025

Auto Industry Pursues High-Volume Uses for Carbon Fiber Composites

Development of Innovative Technologies for Carbon Fiber Usage in Mass Production

Hybrid Reinforced Composites – Potential Application in Automotive Industry

Carbon Fiber Fueling Safety in Automotive Industry

Industry Poorly Equipped to Serve Automotive Needs

Carbon Fiber Recycling Presents a Cost-Effective Feedstock Option for Automakers

Wind Energy Sector: Growing Preference for Carbon Fiber over Glass Fiber

Expanding Capacity of Wind Power Promises Growth in Demand for Carbon Fiber

Table 25. Annual Installed Capacity (in GW) of Wind Power Worldwide (2010-2016)
(includes corresponding Graph/Chart)

Table 26. Global Installed Wind Power Capacity (2016): Percentage Breakdown of Cumulative Installed Capacity by Geographic Region (includes corresponding Graph/Chart)

Table 27. Top Ten Countries in Wind Power Market - Ranked by Cumulative Installed Capacity in GW for 2016 (includes corresponding Graph/Chart)

Trend towards Longer & Lightweight Blades Bodes Well for Carbon Fiber Market
Carbon Fiber Holds Advantages over E-glass in Wind Turbine
Challenges Confronting the Switch from E-glass to Carbon Fiber
Carbon Fiber Faces Tough Competition in Wind Turbine Industry
Sports Goods: Rising Potential for Carbon Fiber Usage
Golf Clubs – A Key Carbon Fiber Consumer
Racquets – Sustained Increase in Use of Composites
Snowboards and Skis – A Small Yet Promising Segment
Fishing Rods – Maximum User of Fiber Properties
Carbon Fibers in Sports Wheelchairs for Athletes with Disabilities
Construction Industry: Another Emerging Application for Carbon Fiber
Rising Significance of Carbon Fiber Composites in Building & Construction Industry
Carbon Fiber in Pressure Vessels Manufacturing – A Small Yet Growing Market
Types of Pressure Vessels

Table 28. Pressure Vessel for Alternative Fuels - Production Volume in Units by Segment for the Years 2016 & 2020 (includes corresponding Graph/Chart)

Table 29. Carbon Fiber Use in Pressure Vessel Manufacturing Market (2016): Percentage Breakdown of Carbon Fiber Demand by Geographic Region (includes corresponding Graph/Chart)

MEMS Applications – The Latest Avenue for Carbon Fiber
Composites Find Increased Demand in Marine Industry
Carbon Fiber Resin – Rising Demand for Lightweight Products Fosters Market Growth
Carbon Fiber Recycling – Rising Expectations
Carbon Filler Based Nanocomposites
The LIBRE Project to Develop Novel Technology for Production of Lignin-Derived

Carbon Fiber

Carbon Fiber Continues to Face Competition from Traditional Materials

Graphene Fiber – The Latest Development in Carbon Fibers

Complex Recycling & Wasteful Production Process: Issues with Carbon Fiber Use

Carbon Fiber and its Maintenance

Table 30. Fatigue Strength of Different Materials (as % of 100,000 Cycles) (includes corresponding Graph/Chart)

4. A REVIEW OF TECHNOLOGICAL DEVELOPMENTS & RESEARCH INITIATIVES

Novel Processing Technique Enhances Strength and Modulus of Carbon Fibers

Advancing Carbon Fiber Continues to Make Waves in the Swimming World

Efforts Underway at The Oak Ridge National Laboratory to Increase Adoption of Carbon Fibers in Automobiles

Ford Showcases Carbon Fiber Bonnet Prototype for Futuristic Cars

Carbon Fiber Technology Complements E-Mobility

Carbon Fibers Facilitate Design and Technological Advancements in the Premium Helmet Market

Carbon Fiber Phone Skins – The Latest Innovation

Innovative Production Processes to Reduce Environmental Impacts of Carbon Fiber Production

Development of Tooling Frames from Carbon Fiber

Innovation in Recycling Carbon Fibers

Carbon Fiber Wheels – For Niche Segment

5. PRODUCT OVERVIEW

6. PRODUCT INNOVATIONS/INTRODUCTIONS

Hexcel Reinforcements Unveils Carbon Fibre Composite Structure for Auto OEM

Toho Tenax Develops Thermoplastic Textile Prepreg

EU Consortium to Develop Lightweight CRRP Wheel

Dow Automotive Systems to Launch New Carbon Fiber Bonding Technique

Hyosung to Manufacture Products Using Carbon Fiber

Dell to Use Recycled Carbon Fiber in Latitude and Alienware Products

SGL to Unveil Novel Carbon Fiber-based Materials

Toho Tenax Develops TENAX XMS32 Carbon Fiber for Automotive & Aerospace

Sectors

7. RECENT INDUSTRY ACTIVITY

Toray Industries Consolidates Composite Materials Business in North America
Safran and Toray Ink Master Agreement for High-Performance Composite Materials
Zoltek to Expand Capacity of Carbon Fiber Production in Mexico
Mitsubishi Rayon Acquires US Carbon Fiber Facility of SGL Carbon
Hexcel Makes Strategic Investment in Carbon Conversions Incorporated
Bright Lite Structures Chooses HiMax Carbon Fiber Reinforcement
Lamborghini Collaborates with Mitsubishi Rayon
Solvay Establishes New Carbon Fiber Production Line in the US
Hexcel Announces Strategic Investment into Oxford Performance Materials
Teijin to Construct New Carbon Fiber Plant in South Carolina
Hexcel Takes Over Complete Ownership of Formax JV
DowAksa and Turkish Aerospace Industries Establish High Technology Facility
Mitsubishi to Form JV with CSP for Automotive Carbon Fiber Components
Mitsui to Acquire Stake in Hexagon Composites
SGL Combines Composites & SGL Automotive Carbon Fibers to Form Single Business Unit, Composites – Fibers and Materials
Toho Tenax Renews Contract with UTAS for Pyromex Supply
Toho Tenax Europe Develops Integrated Production System for Carbon Fiber-Reinforced Plastic
Toray to Invest in Expanding Carbon Fiber Processing Capacity in Europe
Toho Tenax Inks Agreement with Kawasaki Heavy Industries
Solvay Acquires Cytec
Toray and Boeing Ink Long-term Agreement for Carbon Fiber Supply
Mitsubishi Rayon to Build New Carbon Fiber Intermediate Materials Plant
Toray to Acquire Outstanding Interest in Delta Tech
SGL Receives BMBF Funding to Develop Carbon Fiber for Thermoplastic Applications
Toray to Expand Production Capacity at Zoltek's Mexican Plant
Ford and DowAksa Ink Joint Development Agreement for Automotive-Grade Carbon Fiber
Lenzing Group Divests Dolan and European Carbon Fiber
SGL and BASF Conclude Joint Research of New Thermoplastic Carbon-Fiber Composites
Airbus to Use Mitsubishi's Carbon Fiber in Engine Components
Mitsubishi Integrates Carbon Fiber Businesses of Mitsubishi Rayon and Mitsubishi Plastics

Toho Tenax Enters into Agreement with Kawasaki Heavy Industries

8. FOCUS ON SELECT PLAYERS

Cytec Solvay Group (USA)

DowAksa (Turkey)

Formosa Plastics Corporation (Taiwan)

Hexcel Corporation (USA)

Hyosung Corporation (Korea)

Mitsubishi Chemical Holdings Corporation (Japan)

Mitsubishi Chemical Carbon Fiber and Composites, Inc. (USA)

Nippon Graphite Fiber Corporation (Japan)

SGL Group – The Carbon Company (Germany)

Teijin Ltd. (Japan)

Toho Tenax Co., Ltd. (Japan)

Toray Industries, Inc. (Japan)

Toray Composite Materials America, Inc. (USA)

ZOLTEK Carbon Fiber (USA)

9. GLOBAL MARKET PERSPECTIVE

Table 31. World Recent Past, Current & Future Analysis for Carbon Fibers by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific and Rest of World Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 32. World Historic Review for Carbon Fibers by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific and Rest of World Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 33. World 14-Year Perspective for Carbon Fibers by Geographic Region - Percentage Breakdown of Volume Consumption for US, Canada, Japan, Europe, Asia-Pacific and Rest of World Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

By End-Use Application

Table 34. World Recent Past, Current & Future Analysis for Carbon Fibers in Wind Energy Applications by Geographic Region - US, Canada, Europe and Asia-Pacific Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 35. World Historic Review for Carbon Fibers in Wind Energy Applications by Geographic Region - US, Canada, Europe and Asia-Pacific Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 36. World 14-Year Perspective for Carbon Fibers in Wind Energy Applications by Geographic Region - Percentage Breakdown of Volume Consumption for US, Canada, Europe and Asia-Pacific Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

Table 37. World Recent Past, Current & Future Analysis for Carbon Fibers in Aerospace and Defense Applications by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific and Rest of World Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 38. World Historic Review for Carbon Fibers in Aerospace and Defense Applications by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific and Rest of World Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 39. World 14-Year Perspective for Carbon Fibers in Aerospace and Defense Applications by Geographic Region - Percentage Breakdown of Volume Consumption for US, Canada, Japan, Europe, Asia-Pacific and Rest of World Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

Table 40. World Recent Past, Current & Future Analysis for Carbon Fibers in Sports Goods Applications by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific and Rest of World Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 41. World Historic Review for Carbon Fibers in Sports Goods Applications by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific and Rest of World

Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 42. World 14-Year Perspective for Carbon Fibers in Sports Goods Applications by Geographic Region - Percentage Breakdown of Volume Consumption for US, Canada, Japan, Europe, Asia-Pacific and Rest of World Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

Table 43. World Recent Past, Current & Future Analysis for Carbon Fibers in Industrial Applications by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific and Rest of World Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 44. World Historic Review for Carbon Fibers in Industrial Applications by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific and Rest of World Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 45. World 14-Year Perspective for Carbon Fibers in Industrial Applications by Geographic Region - Percentage Breakdown of Volume Consumption for US, Canada, Japan, Europe, Asia-Pacific and Rest of World Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

Table 46. World Recent Past, Current & Future Analysis for Carbon Fibers in Automotive Applications by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific and Rest of World Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 47. World Historic Review for Carbon Fibers in Automotive Applications by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific and Rest of World Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 48. World 14-Year Perspective for Carbon Fibers in Automotive Applications by Geographic Region - Percentage Breakdown of Volume Consumption for US, Canada, Japan, Europe, Asia-Pacific and Rest of World Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

Table 49. World Recent Past, Current & Future Analysis for Carbon Fibers in Other End-Use Applications by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific and Rest of World Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 50. World Historic Review for Carbon Fibers in Other End-Use Applications by Geographic Region - US, Canada, Japan, Europe, Asia-Pacific and Rest of World Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 51. World 14-Year Perspective for Carbon Fibers in Other End-Use Applications by Geographic Region - Percentage Breakdown of Volume Consumption for US, Canada, Japan, Europe, Asia-Pacific and Rest of World Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

III. MARKET

1. THE UNITED STATES

A. Market Analysis

Market Overview

US Invests in R&D to Gain Share in Carbon Fiber Market

Carbon Fiber – The Most Preferred Material by the US Defense

The FreedomCAR Program to Boost Carbon Fiber Demand

Carbon Fibers Facilitate Technological Advancements in the US Spinal Implants Market

Strategic Corporate Developments

Select Players

B. Market Analytics

Table 52. US Recent Past, Current & Future Analysis for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 53. US Historic Review for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric

Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 54. US 14-Year Perspective for Carbon Fibers by End-Use Application - Percentage Breakdown of Volume Consumption for Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

2. CANADA

Market Analysis

Table 55. Canadian Recent Past, Current & Future Analysis for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 56. Canadian Historic Review for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 57. Canadian 14-Year Perspective for Carbon Fibers by End-Use Application - Percentage Breakdown of Volume Consumption for Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

3. JAPAN

A. Market Analysis

Current and Future Analysis

Product Innovations/Introductions

Strategic Corporate Developments

Select Players

B. Market Analytics

Table 58. Japanese Recent Past, Current & Future Analysis for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 59. Japanese Historic Review for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 60. Japanese 14-Year Perspective for Carbon Fibers by End-Use Application - Percentage Breakdown of Volume Consumption for Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

4. EUROPE

A. Market Analysis

Carbon Fiber Market on the Rise

Carbon-Fiber Reinforced Thermoplastics to Offer Good Competition to Glass Fibers

B. Market Analytics

Table 61. European Recent Past, Current & Future Analysis for Carbon Fibers by Geographic Region - France, Germany, Italy, UK and Rest of Europe Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 62. European Historic Review for Carbon Fibers by Geographic Region - France, Germany, Italy, UK and Rest of Europe Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 63. European 14-Year Perspective for Carbon Fibers by Geographic Region - Percentage Breakdown of Volume Consumption for France, Germany, Italy, UK and Rest of Europe Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

Table 64. European Recent Past, Current & Future Analysis for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 65. European Historic Review for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 66. European 14-Year Perspective for Carbon Fibers by End-Use Application - Percentage Breakdown of Volume Consumption for Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

4A. FRANCE

Market Analysis

Table 67. French Recent Past, Current & Future Analysis for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 68. French Historic Review for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 69. French 14-Year Perspective for Carbon Fibers by End-Use Application - Percentage Breakdown of Volume Consumption for Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

4B. GERMANY

A. Market Analysis

Current and Future Analysis

Product Introductions/Developments

Strategic Corporate Developments

SGL Group – The Carbon Company – A Key German Player

B. Market Analytics

Table 70. German Recent Past, Current & Future Analysis for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 71. German Historic Review for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 72. German 14-Year Perspective for Carbon Fibers by End-Use Application - Percentage Breakdown of Volume Consumption for Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

4C. ITALY

A. Market Analysis

Current and Future Analysis

Strategic Corporate Development

B. Market Analytics

Table 73. Italian Recent Past, Current & Future Analysis for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes

corresponding Graph/Chart)

Table 74. Italian Historic Review for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 75. Italian 14-Year Perspective for Carbon Fibers by End-Use Application - Percentage Breakdown of Volume Consumption for Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

4D. THE UNITED KINGDOM

A. Market Analysis

Current and Future Analysis

Carbon Fiber Composites Market: An Insight

EU Legislations Driving Carbon Fiber Market in the UK

Strategic Corporate Developments

B. Market Analytics

Table 76. UK Recent Past, Current & Future Analysis for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 77. UK Historic Review for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 78. UK 14-Year Perspective for Carbon Fibers by End-Use Application - Percentage Breakdown of Volume Consumption for Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

4E. REST OF EUROPE

A. Market Analysis

Current and Future Analysis

Russia

Strategic Corporate Development

DowAksa (Turkey) – A Key Player

B. Market Analytics

Table 79. Rest of Europe Recent Past, Current & Future Analysis for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 80. Rest of Europe Historic Review for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 81. Rest of Europe 14-Year Perspective for Carbon Fibers by End-Use Application - Percentage Breakdown of Volume Consumption for Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

5. ASIA-PACIFIC

Market Analysis

Table 82. Asia-Pacific Recent Past, Current & Future Analysis for Carbon Fibers by Geographic Region - China and Rest of Asia-Pacific Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 83. Asia-Pacific Historic Review for Carbon Fibers by Geographic Region - China and Rest of Asia-Pacific Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding

Graph/Chart)

Table 84. Asia-Pacific 14-Year Perspective for Carbon Fibers by Geographic Region - Percentage Breakdown of Volume Consumption for China and Rest of Asia-Pacific Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

Table 85. Asia-Pacific Recent Past, Current & Future Analysis for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 86. Asia-Pacific Historic Review for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 87. Asia-Pacific 14-Year Perspective for Carbon Fibers by End-Use Application - Percentage Breakdown of Volume Consumption for Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

5A. CHINA

A. Market Analysis

Current and Future Analysis

Carbon Fiber: A Promising Market

Lightweighting Trend in Automotive Industry: Positive Opportunities for China's Carbon Fiber Market

Favorable Policies to Boost Carbon Fiber Production Capacity

Table 88. Chinese Carbon Fiber Market - Production Capacity (in Thousand Tons) of Leading Producers for 2015 (includes corresponding Graph/Chart)

Table 89. Carbon Fiber Precursor Market in China - Production Capacity (in Thousand Tons) of Leading Producers for 2015 (includes corresponding Graph/Chart)

Table 90. Proposed & Ongoing Carbon Fiber Projects in China (2016)

B. Market Analytics

Table 91. Chinese Recent Past, Current & Future Analysis for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 92. Chinese Historic Review for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 93. Chinese 14-Year Perspective for Carbon Fibers by End-Use Application - Percentage Breakdown of Volume Consumption for Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

5B. REST OF ASIA-PACIFIC

A. Market Analysis

Current and Future Analysis

Focus on Select Regions

India

South Korea

Strategic Corporate Development

Select Players

B. Market Analytics

Table 96. Rest of Asia-Pacific Recent Past, Current & Future Analysis for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 97. Rest of Asia-Pacific Historic Review for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 98. Rest of Asia-Pacific 14-Year Perspective for Carbon Fibers by End-Use Application - Percentage Breakdown of Volume Consumption for Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart)

6. REST OF WORLD

A. Market Analysis

Current and Future Analysis

Automotive Carbon Fiber Composites in the UAE: A Promising Market

Strategic Corporate Developments

B. Market Analytics

Table 99. Rest of World Recent Past, Current & Future Analysis for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2016 through 2024 (includes corresponding Graph/Chart)

Table 100. Rest of World Historic Review for Carbon Fibers by End-Use Application - Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets Independently Analyzed with Annual Consumption Figures in Metric Tons for Years 2011 through 2015 (includes corresponding Graph/Chart)

Table 101: Rest of World 14-Year Perspective for Carbon Fibers by End-Use Application - Percentage Breakdown of Volume Consumption for Aerospace & Defense, Sports Goods, Industrial Applications, Automotive and Other End-Use Application Markets for Years 2011, 2017 & 2024 (includes corresponding Graph/Chart) III-76IV.

COMPETITIVE LANDSCAPE

Total Companies Profiled: 33 (including Divisions/Subsidiaries - 40)

The United States (12)

Japan (11)

Europe (5)

Germany (2)

The United Kingdom (1)

Italy (1)

Rest of Europe (1)

Asia-Pacific (Excluding Japan) (12)

I would like to order

Product name: Carbon Fibers: Market Research Report

Product link: <https://marketpublishers.com/r/C2393EF5886EN.html>

Price: US\$ 5,450.00 (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/C2393EF5886EN.html>