

Carbon Fibers & Carbon Fiber Reinforced Plastics (CFRP) – A Global Market Overview

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Abstracts

REPORT SYNOPSIS

Global demand for Carbon Fibers was declined sharply in 2020, dropping by 9.5% YOY in volume terms and 15.4% in value terms, due to reduction in demand for Carbon Fibers across major application areas amid the impact of coronavirus pandemic. Aerospace, automotive, and oil & gas applications have been hit hard by the pandemic during 2020.

COVID-19 pandemic has impacted the production rates of aircrafts significantly during 2020 as demand for new aircrafts drastically decreased. Additionally, the parked fleet of commercial aircraft reached record levels globally during 2020 as passenger traffic fell and airlines reduced capacity. Each new generation of commercial aircraft has used increasing quantities of advanced composites, replacing metals and other materials. This follows the trend previously seen in military fighter aircraft where advanced composites may now exceed 50% of the weight of the airframe.

Research Findings & Coverage

The global market for carbon fibers and carbon fiber reinforced plastics (CFRP) is analyzed in this report with respect to end-use applications, geographic regions and countries

The study provides market size and extensively analyzes each major end-use application of carbon fiber with market snapshot for the analysis period

Zero Emissions and Weight Reduction Targets to Drive Adoption of Carbon

Fibers in Mainstream Automobiles

Demand for Carbon Fiber in Aerospace Industry Bolstered by Greater Acceptance in Commercial Aircrafts

Burgeoning Opportunities for Carbon Fiber in High-pressure Gas Storage Vessels

Recent Advances in Low-Cost Carbon Fiber Manufacturing

Key business trends focusing on product innovations/developments, capacity expansions, M&As, JVs and other recent industry developments

Major companies profiled – 154

The industry guide includes the contact details for 337 companies

PRODUCT OUTLINE

The report analyzes the market for End-use Applications of Carbon Fibers and CFRP analyzed including:

Aerospace & Defense

Sports & Leisure

Wind Energy

Automotive

Pressure Vessels

Construction & Infrastructure

Molding Compounds (or Electrical & Electronic)

Oil & Gas

Other Industrial Applications

Analysis Period, Units and Growth Rates

The report reviews, analyzes and projects the global carbon fibers and carbon reinforced plastics (CFRP) market for the period 2017-2026 in terms of volumes in metric tons and market value in US\$ and the compound annual growth rates (CAGRs) projected from 2020 through to 2026 with a special focus on the COVID-19 Pandemic impact and Y-o-Y growth for 2019-2020

Geographic Coverage

North America (The United States and Canada)

Europe (Denmark, France, Germany, Italy, Spain, The United Kingdom and Rest of Europe)

Japan

Asia excluding Japan (China, India, South Korea and Rest of Asia)

Rest of World (Brazil, Russia, Turkey and Other ROW)

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Carbon Fiber Manufacturers

DowAksa (Turkey)

Formosa Plastics Corporation (Taiwan)

Hexcel Corporation (United States)

Hyosung Advanced Materials (South Korea)

Jiangsu Hengshen Co., Ltd. (China)

Kureha Corporation (Japan)

Mitsubishi Chemical Corporation (Japan)

Osaka Gas Chemicals Co Ltd. (Japan)

SGL Carbon SE (Germany)

Solvay SA (Belgium)

Teijin Limited (Japan)

Toray Industries, Inc. (Japan)

UMATEX, Rosatom State Corporation (Russia)

Weihai Guangwei Composites Co., Ltd. (China)
Zhongfu Shenying Carbon Fiber Co., Ltd. (China)
Carbon Fiber Recyclers
Carbon Conversions, Inc. (United States)
CFK Valley Stade Recycling GmbH & Co KG (Germany)
ELG Carbon Fibre Ltd. (United Kingdom)
Carbon Fiber Composite Manufacturers
A&P Technology (United States)
AciturriAeronautica (Spain)
Albany Engineered Composites (United States)
Aldila, Inc. (United States)
AVANCO GmbH (Germany)
F.S. Fehrer Automotive GmbH (Germany)
Faber Industrie SpA (Italy)
GKN Aerospace (United Kingdom)
Gurit Holding AG (Switzerland)
Hexagon Composites ASA (Norway)
Kaman Corporation (United States)
Lehmann&Voss&Co. (Germany)
Leonardo SpA (Italy)
Luxfer Gas Cylinders (Luxfer Group) (United Kingdom)
Magna International Inc. (Canada)
Menzolit GmbH (Germany)
Metal Mate Co Ltd (Thailand)
Mitsubishi Heavy Industries Ltd (Japan)
Plasan Carbon Composites, Inc. (United States)
Premium Aerotec GmbH (Germany)
RTP Company (United States)
Saudi Basic Industries Corporation (Saudi Arabia)
Saertex GmbH & Co. KG (Germany)
Siemens Gamesa Renewable Energy S.A. (Spain)
Sigmatex (UK) Limited (United Kingdom)
Spirit Aerosystems Inc (United States)
Strata Manufacturing PJSC (United Arab Emirates)
Toray Advanced Composites (The Netherlands)
The Gill Corporation (United States)
Trek Bicycle Corporation (United States)
UTC Aerospace Systems (United States)
Vestas Wind Systems A/S (Denmark)

Worthington Industries, Inc. (United States)

3.4 Key Business and Product Trends

Toray Develops Porous Carbon Fiber based CO₂ Separation Membrane

Hyosung Advanced Materials to Supply Carbon Fibers to Hanwha Solutions

Mitsubishi Chemical to Expand Automotive CFRP Capacity at its Italian Plant

Composite Technology Development Inc Delivers Type V Liner-less Tanks for UAVs

Hexcel Joins the United Kingdom's ASCEND Project

Mitsubishi Chemical Develops Highly Heat-Resistant and High-Strength Carbon Fiber Prepreg

Hexagon Purus and CIMC Enric to Jointly Produce Hydrogen Composite Cylinders for China and Southeast Asia

Luxfer Gas Cylinders Acquires Composite Cylinder Producer Structural Composites Industries

Hexcel Launches HexPly XF Prepreg for Wind Blade Surface Finishing

Teijin Introduces Two New Carbon Fiber Intermediate Materials for Sports Applications

Aciturri to Build Airframe for Lilium's All-electric Jet

Worthington Introduces THERMAGUARD Hydrogen Cylinders

Shanghai Petrochemical to Construct Large Tow Carbon Fiber Production Plant in China

Hexcel HexPly M9 Prepreg Receives DNV GL's Type Approval Certification

Hexagon Ragasco Introduces Smart Composite LPG Cylinders

Toray and MODEC Introduced CFRP based Repair Technology

Hexcel Extends Supply Contract with Safran for Composite Materials for Commercial Aerospace

Mitsubishi Chemical to Build a New CFRP Pilot Plant in Japan

Zhongfu Shenying Starts Trail Production at its New Carbon Fiber Plant in Xining, China

Joint Venture to Produce Advanced Aerostructures Formed by GKN Aerospace, SAMC and AVIC Supply

Quickstep to Acquire Component Repairs Business from Boeing Australia

Solvay to Supply Carbon Fiber Composites for Flybotix Inspection Drone

Collins Aerospace Qualifies Tenax Carbon Fiber Reinforced Thermoplastics

Teijin Inks High-Performance Composite Materials Supply Deal with Safran

Saertex Inks Carbon Fiber Fabrics Supply Deal with Safran

SGL Carbon and Koller Kunststofftechnik to Supply Composite Windshield for BMW

GKN Aerospace to Supply Composite MK30 Missile Canisters to Raytheon Technologies

Sigmatex Launches Non-Woven Fabric Made from Recycled Carbon Fiber

Hexcel to Supply Carbon Fiber for True Temper Sports' Golf Shafts

Hexcel Introduces HexPEKK EM Electromagnetic Shielding and Radar Absorptive

Technology

Karl Meyer AG Carbon Recycling Subsidiaries Acquired by Mitsubishi Chemical Advanced Materials GmbH

World's First Laptop-sized Automated People Mover Uses Teijin's Carbon Fiber

Toray to Supply Carbon Fiber Composites for Lilium All-electric Aircraft

Airbus Qualifies Tenax Non-Crimp Fabrics and Braided Fibers for A320neo Spoilers

ELG Carbon Fibre and Aerocircular N.V. Develop Closed-loop Recycling Process for End-of-life Aircraft

Gurit to Invest in Indian Wind Energy Industry

Solvay to Supply Composites and Adhesives to Leonardo

Teijin Increases Chopped Carbon Fiber Capacity in Germany

Toray Develops Cost Effective High Tensile Modulus Carbon Fiber and Thermoplastic Pellets

HexPly M79 Prepregs from Hexcel Receive Type Approval Certification from DNV GL CFRP Hangers for World's First Railway Bridge Made from Teijin Carbon Fiber

South Korea Grants Patent for 4M Carbon Fiber's Plasma Oxidation Technology

Sigmatex and Hypetex to Produce Colored Carbon Fiber Fabrics

Solvay to Supply Carbon Fiber Composites for Honda's Business Jets

4M and Dralon Developed Large Diameter Industrial Grade Carbon Fiber with Textile Grade Precursor

Montefibre Carbon Plans a 100-ton Carbon Fiber Plant in Spain

Solvay Introduces CYCOM EP2750 Compression Molding Prepreg for Aerospace Primary Structures

Hybrid Carbon and Wood Fiber Composite Car Seat Back Developed by Hexcel and NaCa Systems

Saertex and Bombardier Extend Carbon Fiber Supply Contract

Madshus Skis Employs Hexcel's HiTape Dry Carbon Tapes

Mitsubishi Chemical to Acquire Carbon Fiber Prepreg Producer c-m-p GmbH

SGL Carbon to Supply Composite Battery Enclosures to a North-American Automaker

SGL Carbon to Produce Carbon Fiber Composite Ultra-light Landing Gear for Air Taxis

Kordsa to Supply Carbon Fiber Fabrics for TRB's EV Battery Enclosures

Fiber Materials, Inc is Acquired by Spirit AeroSystems

Solvay and SGL Carbon in Partnership to Develop Large-Tow Carbon Fiber Composites for Aerospace

Jiangsu Hengshen to Supply Carbon Fiber Composites for COMAC's C919 Aircraft Program

SGL Carbon and Solvay Partnered to Produce Carbon Fiber Composites for Aerospace Primary Structures

ELG Carbon Fibre Unveils World's First Carbon Fiber Rail Bogie

Bureau Veritas Verifies LeMond Carbon's Carbon Fiber Rapid Oxidation Technology
Premium AEROTEC Develops Carbon Fiber Metallic Hybrid Composites for Future Aircrafts

Dell to Produce Light-weight Laptops using Carbon Conversions Recycled Carbon Fiber

INEOS Team UK Produces Boat Cradles using Recycled Carbon Fiber from ELG

Sekisui Chemical Acquires AIM Aerospace

GKN Aerospace Develops Large Composite Wing Technology

Gurit to Expand Aerospace Prepreg Capacity in Germany and to Close Switzerland Facility

4M Carbon Fiber Teams Up with Montefibre to Produce Low-Cost Carbon Fiber

Solvay Increases Aerospace Thermoplastic Composites Capacity in the US

Hyosung Plans to Expand its Carbon Fiber Capacity to 24 Thousand Tons by 2028

Teijin Acquires Benet Automotive

Montefibre Carbon Introduces New 80k PAN Carbon Fiber Precursor

Renegade Materials Corporation Acquired by Teijin

New Line of Carbonized Felt and Fabric Launched by Zoltek

Boeing Approves Hexcel HexAM Additive Manufacturing for Commercial Aircraft Programs

HAICoPAS Consortium Led by Hexcel and Arkema Gets Approval from Bpifrance

Mitsubishi Chemical Establishes SMC Production Plant in Italy

SGL Carbon and Elbe Flugzeugwerke Extend Prepreg Supply Contract

Saertex Acquires Carbon Fiber Materials Producer TK Industries

AXIOM Materials Acquired by Kordsa

Hyosung Partners with Saudi Aramco on Carbon Fiber Production

Premium AEROTEC Demonstrates World's First Thermoplastic CFRP Single Aisle Pressure Bulkhead

Solvay Inks Supply Deal with Safran for High Temperature Composites

SGL Carbon Partners with National Composites Centre of the UK

Vacuum Pressure Molded Carbon Fiber Prepreg for Aircraft Developed by Toray

SGL Carbon Produces Fully Integrated Composite Battery Enclosure Prototype for NIO's Advanced Technology

Mitsubishi Corporation Acquires a Stake in ELG Carbon Fibre

TenCate Advanced Composites is Now Toray Advanced Composites

Teijin Develops a New Carbon Fiber Prepreg for Aerospace Applications

SGL Carbon Inks Supply Deal with Onur Materials Services for Aeroengine Insulation Components

Technical Fibre Products to Expand its Nonwovens Capacity

Zhongfu Shenying to Construct 20,000 MT Carbon Fiber Plant in Xining, China

Hexcel Acquires ARC Technologies

SGL Carbon to Supply Fiber Fabrics for Airbus Helicopters
Teijin Extends Carbon Fiber Supply Contract with Bombardier
Teijin to Supply Thermoplastic Unidirectional Pre-impregnated Carbon Fiber Tape for Boeing Commercial Airplanes
Toray Launches High Strength and Modulus TORAYCA MX Carbon Fiber
Toray Acquires TenCate Advanced Composites

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Advanced Carbon Products, LLC (United States)

Applied Sciences Inc (United States)

Cytec Engineered Materials Inc. (Solvay) (United States)

Harper International Corp. (United States)

Hexcel Corporation (United States)

Lemond Composites LLC (United States)

Mitsubishi Chemical Carbon Fiber and Composites, Inc. (United States)

SGL Composites LLC (United States)

Teijin Carbon America, Inc. (United States)

Toray Composite Materials America, Inc. (United States)

Zoltek Corporation (United States)

5.5 Major Carbon Fiber Recyclers

Carbon Conversions, Inc. (United States)

Carbon Fiber Recycling, Inc. (United States)

Shocker Composites, LLC (United States)

Vartega Inc (United States)

5.6 Major Carbon Fiber Composite Manufacturers

A&P Technology (United States)

Adherent Technologies, Inc. (United States)

Albany Engineered Composites (United States)

Aldila, Inc. (United States)

Aurora Flight Sciences Corporation (United States)

Automated Dynamics (United States)

Bally Ribbon Mills (United States)

BGF Industries, Inc. (Porcher Group) (United States)

Composite Technology Development, Inc. (United States)

Composites Horizons Inc (United States)

Fabric Development Inc (United States)

Fiber Materials Inc (United States)

Hexagon Lincoln LLC (United States)

Kaman Corporation (United States)

Luxfer Canada Limited (Canada)

Magna International Inc. (Canada)

Park Aerospace Corp. (United States)
Plasan Carbon Composites, Inc. (United States)
PlastiComp, Inc. (United States)
Protech Composites Inc (United States)
Quantum Fuel Systems LLC (United States)
RTP Company (United States)
Sekisui Aerospace (United States)
Spirit Aerosystems Inc (United States)
Steelhead Composites, LLC (United States)
The GILL Corporation (United States)
TPI Composites, Inc. (United States)
Trek Bicycle Corporation (United States)
UST Mamiya (United States)
UTC Aerospace Systems (United States)
Vectorply Corporation (United States)
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Hexcel Fibers SASU (France)
Montefibre Carbon (Spain)
SGL Carbon SE (Germany)
SGL Carbon Fibers Ltd. (United Kingdom)
Teijin Carbon Europe GmbH (Germany)
Toray Carbon Fibers Europe S.A. (France)
Zoltek Zrt. (Hungary)
6.5 Major Carbon Fiber Recyclers
CFK Valley Stade Recycling GmbH & Co KG (Germany)
ELG Carbon Fibre Ltd. (United Kingdom)
Hadeg Recycling GmbH (Germany)

Karborek Recycling Carbon Fibers (Italy)
WIPAG Deutschland GmbH (Germany)
YF International BV (The Netherlands)
6.6 Major Carbon Fiber Precursor Producers
European Carbon Fiber GmbH (Germany)
SGL Composites S.A. (Portugal)
6.7 Major Carbon Fiber Composite Manufacturers
Aciturri Aeronautica (Spain)
Airborne (The Netherlands)
Albis Distribution GmbH & Co. KG (Germany)
Avanco GmbH (Germany)
Bond-Laminates GmbH (Germany)
CIT Composite Materials Italy (Italy)
Crompton Technology Group Ltd (United Kingdom)
Euro Advanced Carbon Fiber Composites GmbH (Germany)
F.S. Fehrer Automotive GmbH (Germany)
Faber Industrie SpA (Italy)
Fiberline Composites A/S (Denmark)
Fothergill Engineered Fabrics Limited (United Kingdom)
Fritzmeier Composite GmbH & Co Kg (Germany)
GKN Aerospace (United Kingdom)
Gurit Holding AG (Switzerland)
Hexagon Composites ASA (Norway)
Hexcel Reinforcements UK Limited (United Kingdom)
LATI Industria Termoplastici SpA (Italy)
Lehmann&Voss&Co. (Germany)
Leonardo SpA (Italy)
LM Wind Power (Denmark)
Luxfer Gas Cylinders (Luxfer Group) (United Kingdom)
Menzolit GmbH (Germany)
Mubea Carbo Tech GmbH (Austria)
Nordex SE (Germany)
Oxeon AB (Sweden)
Porcher Industries SA (France)
Premium Aerotec GmbH (Germany)
Roding Automobile GmbH (Germany)
SAERTEX GmbH & Co. Kg (Germany)
Siemens Gamesa Renewable Energy S.A. (Spain)
Sigmatex (UK) Limited (United Kingdom)

Sika AG (Switzerland)
Technical Fibre Products Ltd (United Kingdom)
Toray Advanced Composites (The Netherlands)
UNICARBON (Lithuania)
Vestas Wind Systems A/S (Denmark)

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Mitsubishi Chemical Corporation
Nippon Graphite Fiber Corporation
Osaka Gas Chemicals Co Ltd.
Teijin Limited
Toray Industries, Inc.
Carbon Fiber Recycle Industry Co., Ltd. – Carbon Fiber Recycler
7.4 Major Carbon Fiber Composite Manufacturers
ENEOS Corporation
Mitsubishi Heavy Industries Ltd
Nippon Carbon Co., Ltd.
Sakai Industries Ltd
Sakai Ovex Co., Ltd. (Japan)
Showa Aircraft Industry Co., Ltd.
Tokyo R&D Composite Industry Co., Ltd. (Japan)

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Bluestar Fibres Corporation (China)
Formosa Plastics Corporation (Taiwan)
GanSuHaoShi Carbon Fiber Co., Ltd. (China)
Hyosung Advanced Materials (South Korea)
Jiangsu Hengshen Co., Ltd. (China)
Jilin Chemical Fiber Co., Ltd. (China)
Jinggong Group Co. Ltd. (China)
Reliance Industries Ltd. (India)
Shanxi Gangke Carbon Material Co., Ltd. (China)
Sinopec Shanghai Petrochemical Company Limited (China)
Taekwang Industrial Co., Ltd. (South Korea)
UHT Unitech Co., Ltd. (Taiwan)
Weihai Guangwei Composites Co., Ltd. (China)
Zhongfu Shenyang Carbon Fiber Co., Ltd. (China)

8.5 Major Carbon Fiber Composite Manufacturers

Advanced International Multitech Co., Ltd. (Taiwan)
Asian Composites Manufacturing Sdn Bhd (Malaysia)
Fibertech Co., Ltd. (South Korea)
Hankuk Carbon Co., Ltd. (South Korea)
Jiangsu Aosheng Composite Materials Hi-Tech Co., Ltd. (China)
Kinenco Private Ltd (India)
Korea Aerospace Industries Ltd (South Korea)
Kureha (Shanghai) Carbon Fiber Materials Co., Ltd. (China)
Metal Mate Co., Ltd. (Thailand)
PGTEX China Co., Ltd. (China)
Rockman Advanced Composites Pvt Ltd (India)
SK Chemicals Co., Ltd. (South Korea)
Sunwell (Jiangsu) Carbon Fiber Composite Co., Ltd. (China)
Suzlon Energy Ltd. (India)
Taiwan Electric Insulator Co., Ltd. (Taiwan)
Taiwan Strong Sporting Goods Inc (Taiwan)
Topkey Corporation (Taiwan)
Weihai Guangwei Composites Co., Ltd. (China)

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Rest of World Carbon Fiber Market

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DowAksa (Turkey)

UMATEX, Rosatom State Corporation (Russia)

Alabuga-Fibre LLC (Russia)

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Kordsa Teknik Tekstil A.S. (TURKEY)

Metyx (Turkey)

Quickstep Technology Pty Ltd (Australia)

Riverscarbon Technologies Ltd (New Zealand)

Strata Manufacturing PJSC (United Arab Emirates)

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