

Asia Pacific Wind Turbine Composites Market Forecast to 2030 - Regional Analysis - by Fiber Type (Carbon Fiber Composites, Glass Fiber Composites, and Others), Resin Type (Polyester, Epoxy, Polyurethane, Vinyl Ester, and Others), Technology (Resin Infusion, Prepreg, Lay Up, and Others), and Application (Blades and Nacelles)

<https://marketpublishers.com/r/A2B42F1590E8EN.html>

Date: June 2024

Pages: 111

Price: US\$ 2,485.00 (Single User License)

ID: A2B42F1590E8EN

Abstracts

The Asia Pacific wind turbine composites market was valued at US\$ 3,698.92 million in 2022 and is expected to reach US\$ 9,064.64 million by 2030; it is estimated to record a CAGR of 11.9% from 2022 to 2030.

Adoption of Natural Fiber Reinforced Polymer (NFRP) Composites Boosts Asia Pacific Wind Turbine Composites Market

A wind turbine consists of several parts such as a hub, gearbox, blades, nacelle, and tower, among which wind turbine blades and nacelle are generally composed of composite materials, including glass and carbon fibers. However, these kinds of fibers are often associated with a certain set of limitations, which include their availability, nonbiodegradability, harmful impact on health, and the fabrication cost involved. The use of natural fibers can overcome all these challenges. The growing environmental issues have shifted the attention of researchers and technologists to the use of natural biodegradable materials, which has bolstered the use of natural fiber-reinforced polymer (NFRP) composites in wind turbine manufacturing.

Natural fibers are defined as those substances which are made from plants, animals, and minerals with the help of geological processes. Natural fibers obtained from kenaf,

bagasse, banana, sisal, flax, hemp, jute, abaca, and bamboo are easily available and need low processing costs. They can be spun together into filaments, threads, or ropes and can be knitted, woven, or matted.

The characteristic features of natural fibers might vary considerably according to their chemical composition and structure; fiber type; and fiber's growing conditions, harvesting time, manufacturing method, treatment, and storage processes. Such reinforced composites form a class of materials that exhibit superior mechanical features as well as potentially replace the conventional material systems in wind turbines.

The NFRP composites possess certain advantages as compared to synthetic fiber-reinforced composites. These benefits include low density, minimal cost, nonabrasive features, biodegradability, and renewable nature. Hence, the rising concern and awareness about the social and environmental impacts of conventional materials are resulting in the shift toward environment-friendly materials by manufacturers of composites, which is expected to fuel the wind turbine composites market growth during the forecast period.

Asia Pacific Wind Turbine Composites Market Overview

The wind turbine composites market in Asia Pacific is segmented into Australia, China, India, Japan, South Korea, and the Rest of Asia Pacific. China is a major contributor to the market growth in this region. The country has been the largest and fastest-growing renewable energy producer for more than a decade across the world. Moreover, it has the world's largest wind energy market. China remained the world's largest market for new onshore additions in 2020, driven by the feed-in tariff (FiT) cut-off. The wind power industry in India also records a remarkable growth due to policies and regulations adopted by the union and state governments. In Japan, the government has set the target of 10 GW of offshore wind installation by 2030 and 30-45 GW by 2040. According to the IEA Wind TCP, Japan's wind power capacity reached 4,581 MW in the end of 2021. The Japan Wind Power Association stated that the country installed 232.9 MW of new wind capacity in 2022, bringing the total capacity in operation to 4,802 MW. Thus, the increasing installed wind capacity in China, Japan, India, Australia, and others drives the demand for wind turbine composites. Countries such as Taiwan, South Korea, Vietnam, and the Philippines are also taking various initiatives to install new wind capacities, adding to the region's demand for wind turbine composites.

Asia Pacific Wind Turbine Composites Market Revenue and Forecast to 2030 (US\$

Million)

Asia Pacific Wind Turbine Composites Market Segmentation

The Asia Pacific wind turbine composites market is segmented based on fiber type, resin type, technology, application, and country.

Based on fiber type, the Asia Pacific wind turbine composites market is segmented into carbon fiber composites, glass fiber composites, and others. The glass fiber composites segment held a larger share in 2022.

In terms of resin type, the Asia Pacific wind turbine composites market is segmented into polyester, epoxy, polyurethane, vinyl ester, and others. The epoxy segment held the largest share in 2022.

Based on technology, the Asia Pacific wind turbine composites market is segmented into resin infusion, prepreg, lay up, and others. The resin infusion segment held the largest share in 2022.

By application, the Asia Pacific wind turbine composites market is bifurcated into blades and nacelles. The blades segment held a larger share in 2022.

Based on country, the Asia Pacific wind turbine composites market is segmented into Australia, China, India, Japan, South Korea, and the Rest of Asia Pacific. China dominated the Asia Pacific wind turbine composites market in 2022.

Avient Corp, Toray Industries Inc, SGL Carbon SE, Owens Corning, Gurit Holding AG, Covestro AG, Hexion Inc, EPSILON Composite SA, Exel Composites Oyj, and Hexcel Corp are some of the leading companies operating in the Asia Pacific wind turbine composites market.

Contents

1. INTRODUCTION

- 1.1 The Insight Partners Research Report Guidance
- 1.2 Market Segmentation

2. EXECUTIVE SUMMARY

- 2.1 Key Insights
- 2.2 Market Attractiveness
 - 2.2.1 Market Attractiveness

3. RESEARCH METHODOLOGY

- 3.1 Coverage
- 3.2 Secondary Research
- 3.3 Primary Research

4. ASIA PACIFIC WIND TURBINE COMPOSITES MARKET LANDSCAPE

- 4.1 Overview
- 4.2 Porters Analysis
 - 4.2.1 Bargaining Power of Suppliers
 - 4.2.2 Bargaining Power of Buyers
 - 4.2.3 Threat of New Entrants
 - 4.2.4 Competitive Rivalry
 - 4.2.5 Threat of Substitutes
- 4.3 Ecosystem Analysis
 - 4.3.1 Raw Material Suppliers
 - 4.3.2 Wind Turbine Composites Manufacturers
 - 4.3.3 Distributors/Suppliers
 - 4.3.4 End-Users and Original Equipment Manufacturers
 - 4.3.5 List of Vendors in the Value Chain

5. ASIA PACIFIC WIND TURBINE COMPOSITES MARKET - KEY MARKET DYNAMICS

- 5.1 Market Drivers

- 5.1.1 Increase in Installation Rate of Wind Turbine Capacity
- 5.1.2 Increasing Length of Wind Turbine Blades
- 5.2 Market Restraints
 - 5.2.1 High Dependence of Wind Energy Industry on Government Subsidies
- 5.3 Market Opportunities
 - 5.3.1 Government Initiatives for Development of Wind Energy Sector
- 5.4 Future Trends
 - 5.4.1 Adoption of Natural Fiber Reinforced Polymer (NFRP) Composites
- 5.5 Impact Analysis

6. WIND TURBINE COMPOSITES MARKET - ASIA PACIFIC MARKET ANALYSIS

- 6.1 Asia Pacific Wind Turbine Composites Market Volume (Kilo Tons)
- 6.2 Asia Pacific Wind Turbine Composites Market Revenue (US\$ Million)
- 6.3 Asia Pacific Wind Turbine Composites Market Forecast and Analysis

7. ASIA PACIFIC WIND TURBINE COMPOSITES MARKET ANALYSIS - FIBER TYPE

- 7.1 Carbon Fiber Composites
 - 7.1.1 Overview
 - 7.1.2 Carbon Fiber Composites Market Volume and Forecast to 2030 (Kilo Tons)
 - 7.1.3 Carbon Fiber Composites Market, Revenue and Forecast to 2030 (US\$ Million)
- 7.2 Glass Fiber Composites
 - 7.2.1 Overview
 - 7.2.2 Glass Fiber Composites Market Volume and Forecast to 2030 (Kilo Tons)
 - 7.2.3 Glass Fiber Composites Market, Revenue and Forecast to 2030 (US\$ Million)
- 7.3 Others
 - 7.3.1 Overview
 - 7.3.2 Others Market Volume and Forecast to 2030 (Kilo Tons)
 - 7.3.1 Others Market, Revenue and Forecast to 2030 (US\$ Million)

8. ASIA PACIFIC WIND TURBINE COMPOSITES MARKET ANALYSIS - RESIN TYPE

- 8.1 Polyester
 - 8.1.1 Overview
 - 8.1.2 Polyester Market Revenue and Forecast to 2030 (US\$ Million)
- 8.2 Epoxy

8.2.1 Overview

8.2.2 Epoxy Market Revenue and Forecast to 2030 (US\$ Million)

8.3 Polyurethane

8.3.1 Overview

8.3.2 Polyurethane Market Revenue and Forecast to 2030 (US\$ Million)

8.4 Vinyl Ester

8.4.1 Overview

8.4.2 Vinyl Ester Market Revenue and Forecast to 2030 (US\$ Million)

8.5 Others

8.5.1 Overview

8.5.2 Others Market Revenue and Forecast to 2030 (US\$ Million)

9. ASIA PACIFIC WIND TURBINE COMPOSITES MARKET ANALYSIS - TECHNOLOGY

9.1 Resin Infusion

9.1.1 Overview

9.1.2 Resin Infusion Market, Revenue and Forecast to 2030 (US\$ Million)

9.2 Prepreg

9.2.1 Overview

9.2.2 Prepreg Market, Revenue and Forecast to 2030 (US\$ Million)

9.3 Lay Up

9.3.1 Overview

9.3.2 Lay Up Market, Revenue and Forecast to 2030 (US\$ Million)

9.4 Others

9.4.1 Overview

9.4.2 Others Market, Revenue and Forecast to 2030 (US\$ Million)

10. ASIA PACIFIC WIND TURBINE COMPOSITES MARKET ANALYSIS - APPLICATION

10.1 Blades

10.1.1 Overview

10.1.2 Blades Market, Revenue, and Forecast to 2030 (US\$ Million)

10.2 Nacelles

10.2.1 Overview

10.2.2 Nacelles Market Revenue, and Forecast to 2030 (US\$ Million)

11. ASIA PACIFIC WIND TURBINE COMPOSITES MARKET - COUNTRY ANALYSIS

11.1 Asia Pacific

11.1.1 Wind Turbine Composites Market Breakdown by Country

11.1.2 Australia Wind Turbine Composites Market Volume and Forecasts to 2030 (Kilo Tons)

11.1.3 Australia Wind Turbine Composites Market Revenue and Forecasts to 2030 (US\$ Million)

11.1.3.1 Australia Wind Turbine Composites Market Breakdown by Fiber Type

11.1.3.2 Australia Wind Turbine Composites Market Breakdown by Resin Type

11.1.3.3 Australia Wind Turbine Composites Market Breakdown by Technology

11.1.3.4 Australia Wind Turbine Composites Market Breakdown by Application

11.1.4 China Wind Turbine Composites Market Volume and Forecasts to 2030 (Kilo Tons)

11.1.5 China Wind Turbine Composites Market Revenue and Forecasts to 2030 (US\$ Million)

11.1.5.1 China Wind Turbine Composites Market Breakdown by Fiber Type

11.1.5.2 China Wind Turbine Composites Market Breakdown by Resin Type

11.1.5.3 China Wind Turbine Composites Market Breakdown by Technology

11.1.5.4 China Wind Turbine Composites Market Breakdown by Application

11.1.6 India Wind Turbine Composites Market Volume and Forecasts to 2030 (Kilo Tons)

11.1.7 India Wind Turbine Composites Market Revenue and Forecasts to 2030 (US\$ Million)

11.1.7.1 India Wind Turbine Composites Market Breakdown by Fiber Type

11.1.7.2 India Wind Turbine Composites Market Breakdown by Resin Type

11.1.7.3 India Wind Turbine Composites Market Breakdown by Technology

11.1.7.4 India Wind Turbine Composites Market Breakdown by Application

11.1.8 Japan Wind Turbine Composites Market Volume and Forecasts to 2030 (Kilo Tons)

11.1.9 Japan Wind Turbine Composites Market Revenue and Forecasts to 2030 (US\$ Million)

11.1.9.1 Japan Wind Turbine Composites Market Breakdown by Fiber Type

11.1.9.2 Japan Wind Turbine Composites Market Breakdown by Resin Type

11.1.9.3 Japan Wind Turbine Composites Market Breakdown by Technology

11.1.9.4 Japan Wind Turbine Composites Market Breakdown by Application

11.1.10 South Korea Wind Turbine Composites Market Volume and Forecasts to 2030 (Kilo Tons)

11.1.11 South Korea Wind Turbine Composites Market Revenue and Forecasts to 2030 (US\$ Million)

- 11.1.11.1 South Korea Wind Turbine Composites Market Breakdown by Fiber Type
- 11.1.11.2 South Korea Wind Turbine Composites Market Breakdown by Resin Type
- 11.1.11.3 South Korea Wind Turbine Composites Market Breakdown by Technology
- 11.1.11.4 South Korea Wind Turbine Composites Market Breakdown by Application
- 11.1.12 Rest of Asia Pacific Wind Turbine Composites Market Volume and Forecasts to 2030 (Kilo Tons)
- 11.1.13 Rest of Asia Pacific Wind Turbine Composites Market Revenue and Forecasts to 2030 (US\$ Million)
 - 11.1.13.1 Rest of Asia Pacific Wind Turbine Composites Market Breakdown by Fiber Type
 - 11.1.13.2 Rest of Asia Pacific Wind Turbine Composites Market Breakdown by Resin Type
 - 11.1.13.3 Rest of Asia Pacific Wind Turbine Composites Market Breakdown by Technology
 - 11.1.13.4 Rest of Asia Pacific Wind Turbine Composites Market Breakdown by Application

12. COMPETITIVE LANDSCAPE

- 12.1 Heat Map Analysis by Key Players

13. INDUSTRY LANDSCAPE

- 13.1 Overview
- 13.2 Merger and Acquisition
- 13.3 Partnerships

14. COMPANY PROFILES

- 14.1 Avient Corp
 - 14.1.1 Key Facts
 - 14.1.2 Business Description
 - 14.1.3 Products and Services
 - 14.1.4 Financial Overview
 - 14.1.5 SWOT Analysis
 - 14.1.6 Key Developments
- 14.2 Toray Industries Inc
 - 14.2.1 Key Facts
 - 14.2.2 Business Description

- 14.2.3 Products and Services
- 14.2.4 Financial Overview
- 14.2.5 SWOT Analysis
- 14.2.6 Key Developments
- 14.3 SGL Carbon SE
 - 14.3.1 Key Facts
 - 14.3.2 Business Description
 - 14.3.3 Products and Services
 - 14.3.4 Financial Overview
 - 14.3.5 SWOT Analysis
 - 14.3.6 Key Developments
- 14.4 Owens Corning
 - 14.4.1 Key Facts
 - 14.4.2 Business Description
 - 14.4.3 Products and Services
 - 14.4.4 Financial Overview
 - 14.4.5 SWOT Analysis
 - 14.4.6 Key Developments
- 14.5 Gurit Holding AG
 - 14.5.1 Key Facts
 - 14.5.2 Business Description
 - 14.5.3 Products and Services
 - 14.5.4 Financial Overview
 - 14.5.5 SWOT Analysis
 - 14.5.6 Key Developments
- 14.6 Covestro AG
 - 14.6.1 Key Facts
 - 14.6.2 Business Description
 - 14.6.3 Products and Services
 - 14.6.4 Financial Overview
 - 14.6.5 SWOT Analysis
 - 14.6.6 Key Developments
- 14.7 Hexion Inc
 - 14.7.1 Key Facts
 - 14.7.2 Business Description
 - 14.7.3 Products and Services
 - 14.7.4 Financial Overview
 - 14.7.5 SWOT Analysis
 - 14.7.6 Key Developments

14.8 Exel Composites Oyj

14.8.1 Key Facts

14.8.2 Business Description

14.8.3 Products and Services

14.8.4 Financial Overview

14.8.5 SWOT Analysis

14.8.6 Key Developments

14.9 Hexcel Corp

14.9.1 Key Facts

14.9.2 Business Description

14.9.3 Products and Services

14.9.4 Financial Overview

14.9.5 SWOT Analysis

15. APPENDIX

I would like to order

Product name: Asia Pacific Wind Turbine Composites Market Forecast to 2030 - Regional Analysis - by Fiber Type (Carbon Fiber Composites, Glass Fiber Composites, and Others), Resin Type (Polyester, Epoxy, Polyurethane, Vinyl Ester, and Others), Technology (Resin Infusion, Prepreg, Lay Up, and Others), and Application (Blades and Nacelles)

Product link: <https://marketpublishers.com/r/A2B42F1590E8EN.html>

Price: US\$ 2,485.00 (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/A2B42F1590E8EN.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