Global and China Carbon Fiber and CFRP Industry Report, 2017-2021

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METHODOLOGY

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications. Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

INFORMATION SOURCES

The primary information sources include Company Reports, and National Bureau of Statistics of China etc.
Abstract

As a new generation of reinforced fiber featuring excellent mechanical property and chemical stability, carbon fiber is the one with the highest specific strength and specific modulus among mass-produced high-performance fibers.

Global carbon fiber demand approximated 83,000 tons in 2016, a 12.0% increase from a year ago. China, one of the world’s leading sources of carbon fiber demand, consumed 19,000 tons, 22.9% of the global total. However, China relies heavily on imported carbon fiber products (particularly high-performance ones) because of its outdated production techniques and inadequate production capacity. Only 24.9% of carbon fibers were produced locally in China in 2016 and the localization rate is expected to exceed 35.0% in 2021 along with technological advances.

Carbon fiber and its composites are primarily applied to aviation & aerospace and wind power fields which together accounted for 46% of the world’s demand in 2015, compared with no more than 15% in China; sports and leisure fields made up more than 50% globally in 2015 but has suffered a decline in percentage as automobile/wind power/aviation & aerospace industries develop in recent years.

As carbon fiber is produced with sophisticated production processes and advanced technology, China, isolated from these technologies and equipment because of political factors, lags far behind foreign countries.

1) **Product:** Japan-based Toray has started research into T2000 carbon fiber (10 times as much as the strength of T1000 carbon fiber and no impurities during polymerization) in 2017, while China just achieves mass production of T800 carbon fiber.

2) **Enterprise:** Japanese Toray, Teijin, Mitsubishi Rayon, U.S. Hexcel, Cytec (acquired by Belgian Solvay), and China’s Formosa Plastics take the lion’s share of global carbon fiber market. After the acquisition of U.S. Zoltek, Toray holds a 30% share of global market as a whole and over 40% share of large-tow carbon fiber market specifically. By contrast, there are only six Chinese enterprises with production capacity of 1000t and above/a each including Zhongfu Shenying Carbon Fiber, Jiangsu Hengshen Fiber Material, and Bluestar Fibres, claiming a combined global share of less than 15%.
Competitive Landscape of Global Carbon Fiber Market, 2016

Global and China Carbon Fiber and CFRP Industry Report, 2017-2021 by ResearchInChina highlights the following:

- Carbon fiber (definition, classification, application, level of technology, industry chain, etc.);
- Global carbon fiber market (status quo, supply & demand, competitive landscape, patent, costs & prices, development trends, etc.);
- Chinese carbon fiber market (policy environment, development status, supply & demand, industrial layout, import & export, development trends, etc.);
- Carbon fiber composites market (size, structure, cost structure, competition, etc.);
- Upstream carbon fiber precursor and downstream (aviation & aerospace, automobile, wind power, sports & leisure, etc.) (market situation, market demand, etc.);
- 10 foreign and 20 Chinese carbon fiber manufacturers (operation, carbon fiber business, presence in China, etc.)
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