



Freedonia Focus Reports
US Collection

High-Performance Composites: United States

August 2016



Highlights

Market Environment

Historical Trends | Key Economic Indicators | Technology | Regulatory Factors
Resin Overview

Segmentation and Forecasts

Fibers | Markets

Industry Structure

Industry Composition and Characteristics | Companies Cited

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ABOUT THIS REPORT

Scope & Method

This report forecasts US high-performance composite (HPC) demand in US dollars at the manufacturers' level and in pounds to 2020. Total demand in dollars and pounds is segmented by fiber in terms of:

- carbon fiber
- S-glass fiber
- aramid fiber
- other fibers such as ultra-high molecular weight polyethylene, boron, and quartz.

HPCs are defined as polymer resins reinforced with advanced fiber materials. Composites using E-glass or R-glass fibers are not included in the scope of this report, regardless of resin type or application. Additionally, advanced fibers used in non-polymer reinforcement applications, such as carbon-carbon composites, metal matrix composites, or fiber-reinforced concrete, are not included. Aramid fibers used in non-composite applications, such as protective vests, gloves, and other textiles, are also excluded.

Total demand in dollars is also segmented by market as follows:

- aerospace
- automotive and industrial
- consumer
- energy
- defense and safety
- construction and other markets such as train, rail, and subway transportation; appliance components and housings; and furniture.

To illustrate historical trends, total demand in dollars and pounds is provided in annual series from 2005 to 2015; the various segments are reported at five-year intervals for 2010 and 2015.

This report quantifies trends in various measures of growth. Growth (or decline) expressed as an average annual growth rate (AAGR) is the least squares growth rate, which takes into account all available datapoints over a period. Growth calculated as a compound annual growth rate (CAGR) employs, by definition, only the first and last datapoints over a period. The CAGR is used to describe forecast growth, defined as the expected trend beginning in the base year and ending in the forecast year. Readers are encouraged to consider historical volatility when assessing particular annual values along the forecast trend, including in the forecast year.

Key macroeconomic indicators are also provided at five-year intervals with CAGRs for the years corresponding to other reported figures. Other various topics, including profiles of pertinent leading suppliers, are covered in this report. A full outline of report items by page is available in the [Table of Contents](#).

Sources

High-Performance Composites: United States (FF55042) is based on [High Performance Composites](#), a comprehensive industry study published by The Freedonia Group in August 2016. Reported findings represent the synthesis and analysis of data from various primary, secondary, macroeconomic, and demographic sources including:

- firms participating in the industry, and their suppliers and customers
- government/public agencies
- national, regional, and international non-governmental organizations
- trade associations and their publications
- the business and trade press
- indicator forecasts by The Freedonia Group
- the findings of other industry studies by The Freedonia Group.

Specific sources and additional resources are listed in the [Resources](#) section of this publication for reference and to facilitate further research.

Industry Codes

The topic of this report is related to the following industry codes:

NAICS/SCIAN 2007		SIC	
North American Industry Classification System		Standard Industry Codes	
325211	Plastics Material and Resin Mfg	2821	Plastics Materials, Synthetic Resins, and Nonvulcanizable Elastomers
327999	All Other Miscellaneous Nonmetallic Mineral Product Mfg	3299	Nonmetallic Mineral Products, NEC
335991	Carbon and Graphite Product Mfg	3624	Carbon and Graphite Products

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RESOURCES

The Freedonia Group

<i>3438 High Performance Composites</i> , August 2016	www.freedoniagroup.com
Related Industry Studies	see study contents
<i>3431 Law Enforcement Equipment</i> , August 2016	see study contents
<i>3402 World Graphene</i> , April 2016	see study contents
<i>3350 World Battery Materials</i> , December 2015	see study contents
Related Focus Reports	
<i>Motor Vehicles: United States</i>	see report contents
<i>Natural Polymers: United States</i>	see report contents
<i>Polyethylene: United States</i>	see report contents
<i>Polypropylene: United States</i>	see report contents
<i>Silicones: United States</i>	see report contents
Freedonia Custom Research	see capabilities

Trade Publications

<i>Composites World</i>	www.compositesworld.com
<i>IHS Chemical Week</i>	www.chemweek.com
<i>JEC Composites Magazine</i>	www.jeccomposites.com

Agencies & Associations

American Composites Manufacturers Association	www.acmanet.org
American National Standards Institute	www.ansi.org
American Society of Mechanical Engineers	www.asme.org
American Wind Energy Association	www.awea.org
ASTM International	www.astm.org
Federal Aviation Administration	www.faa.gov
National Electrical Manufacturers Association	www.nema.org
National Fire Protection Association	www.nfpa.org
Occupational Safety & Health Administration	www.osha.gov
Underwriters Laboratory	www.ul.com
United States Census Bureau	www.census.gov
United States Department of Commerce	www.commerce.gov
Bureau of Industry and Security	www.bis.doc.gov
United States Department of Defense	www.defense.gov
United States Department of Transportation	www.transportation.gov
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