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Titanium:

United States

July 2021



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About This Report

Scope

This report forecasts to 2021 and 2025 US demand for titanium mineral concentrates, titanium dioxide pigments, and titanium metal in metric tons and nominal US dollars at the producer level. Total demand for titanium mineral concentrates in metric tons represents titanium dioxide content and is segmented by application in terms of:

- pigments
- other applications such as carbides, chemicals, and metal sponge

Demand for titanium dioxide pigment in metric tons is segmented by application as follows:

- paint
- plastic and rubber
- paper
- other applications such as ceramics, food coloring, and ink

Paint refers to both architectural paint and industrial and manufacturing coatings.

Demand for titanium metal – including both metal sponge and scrap – in metric tons is segmented by application as follows:

- aerospace
- other applications such as chemical processing components, marine equipment, oil and gas production and processing equipment

To illustrate historical trends, total demand in volume and value terms, price trends, the various segments in volume terms, and trade in mineral concentrates in volume terms are provided in annual series from 2010 to 2020.

Key macroeconomic indicators are also provided with quantified trends. Other various topics, including profiles of pertinent leading companies, are covered in this report. A full outline of report items by page is available in the Table of Contents.

Sources

Titanium: United States (FF65014) represent the synthesis and analysis of data from various secondary, macroeconomic, and demographic sources, such as:

- firms participating in the industry, and their suppliers and customers
- government/public agencies
- intergovernmental and non-governmental organizations

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- trade associations and their publications
- the business and trade press
- indicator forecasts by The Freedonia Group
- the findings of other reports and 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

Table 12 | NAICS & SIC Codes Related to Titanium

NAICS/SCIAN 2017		SIC	
North American Industry Classification System		Standard Industrial Classification	
212299	All Other Metal Ore Mining	1099	Miscellaneous Metal Ores, NEC
325130	Inorganic Dye and Pigment Manufacturing	2816	Inorganic Pigments
331410	Nonferrous Metal (except Aluminum) Smelting and Refining	3339	Primary Smelting and Refining of Nonferrous Metals, Except Copper and Aluminum
331491	Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding	3356	Rolling, Drawing, and Extruding of Nonferrous Metals, Except Copper and Aluminum

Source: US Census Bureau

Freedonia Methodology

The Freedonia Group, a subsidiary of MarketResearch.com, has been in business for more than 30 years and in that time has developed a comprehensive approach to data analysis that takes into account the variety of industries covered and the evolving needs of our customers.

Every industry presents different challenges in market sizing and forecasting, and this requires flexibility in methodology and approach. Freedonia methodology integrates a variety of quantitative and qualitative techniques to present the best overall picture of a market's current position as well as its future outlook: When published data are available, we make sure they are correct and representative of reality. We understand that published data often have flaws either in scope or quality, and adjustments are made accordingly. Where no data are available, we use various methodologies to develop market sizing (both top-down and bottom-up) and then triangulate those results to come up with the most accurate data series possible. Regardless of approach, we also talk to industry participants to verify both historical perspective and future growth opportunities.

Methods used in the preparation of Freedonia market research include, but are not limited to, the following activities: comprehensive data mining and evaluation, primary research, consensus forecasting and analysis, ratio analysis using key indicators, regression analysis, end use growth indices and intensity factors, purchase power parity adjustments for global

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data, consumer and end user surveys, market share and corporate sales analysis, product lifespan analysis, product or market life cycle analysis, graphical data modeling, long-term historical trend analysis, bottom-up and top-down demand modeling, and comparative market size ranking.

Freedonia quantifies trends in various measures of growth and volatility. 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. The volatility of datapoints around a least squares growth trend over time is expressed via the coefficient of determination, or r^2 . The most stable data series relative to the trend carries an r^2 value of 1.0; the most volatile – 0.0. 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.

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Perlite & Vermiculite: United States

Pigments: United States

Polyvinyl Chloride: United States

Salt: United States

Sheet Metal: United States

Shipbuilding: United States

Steel Mill Products: United States

Thermoplastic Resins: United States

Tin: United States

Transport Equipment: United States

Zinc: United States

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ICIS Chemical Business

Metal Center News

PCI Magazine

Agencies & Associations

Aerospace Industries Association

Defense Advanced Research Projects Agency

The Institute of Materials, Minerals and Mining

International Titanium Association

Titanium Dioxide Manufacturers Association

US Department of Commerce

 Bureau of Economic Analysis

 US Census Bureau

US Geological Survey

US International Trade Commission