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Refractories: United States

January 2018



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About This Report

Scope & Method

This report forecasts to 2021 US refractory demand in metric tons, and total demand and total shipments in nominal US dollars at the manufacturer level. Total demand by volume is segmented by material in terms of:

- clay
- nonclay

Total demand by volume is also segmented by market as follows:

- iron and steel
- nonmetallic minerals
- nonferrous metals
- other markets such as chemical manufacturing, petroleum refining, and waste incinerators

To illustrate historical trends, total demand by volume is provided in annual series from 2006 to 2016; total demand and total shipments by value, and the various demand segments by volume are reported at five-year intervals for 2006, 2011, and 2016.

For the purposes of this report, the ASTM International definition of refractory is used: “nonmetallic minerals having those chemical and physical properties that make them applicable for structures, or as components of systems, that are exposed to environments above 538°C (1,000°F)”. Materials that are resistant to lower temperatures are excluded.

This report 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.

Key macroeconomic indicators are also provided with quantified trends. 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

Refractories: United States (FF60037) is based on *Global Refractory Markets*, a comprehensive industry study published by The Freedonia Group. 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 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 6 | Industry Codes Related to Refractories

NAICS/SCIAN 2007		SIC	
North American Industry Classification System		Standard Industrial Classification	
327124	Clay Refractory Manufacturing	3255	Clay Refractories
327125	Nonclay Refractory Manufacturing	3297	Nonclay Refractories

Source: US Census Bureau

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Resources

The Freedonia Group

Global Refractory Markets, January 2018

Freedonia Industry Studies

Insulation Market in the US, December 2017

World Industrial Silica Sand, October 2016

World Flat Glass, August 2016

World Insulation, July 2016

World Abrasives, June 2016

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Abrasives: United States

Aluminum: United States

Fabricated Metal Products: United States

Industrial Castings: United States

Industrial Clays: United States

Lime: United States

Metal Services: United States

Metal Stampings: United States

Recovered Glass: United States

Recovered Metals: United States

Sheet Metal: United States

Steel Mill Products: United States

Titanium: United States

World Abrasives

World Flat Glass

Freedonia Custom Research

Trade Publications

American Metal Market

Ceramic Industry

FORGE

Industrial Heating

Industrial Minerals

Refractories Window

refractories WORLDFORUM

Agencies & Associations

The American Ceramic Society

About This Report

ASTM International
United Nations Comtrade
United States Census Bureau
United States Geological Survey
United States International Trade Commission
World Refractories Association
World Steel Association