Specialty Silicas

US Industry Study with Forecasts for 2015 & 2020

Study #2762 | May 2011 | $4800 | 228 pages
## Table of Contents

### EXECUTIVE SUMMARY

### MARKET ENVIRONMENT

- General ........................................4
- Macroeconomic Outlook ................5
- Manufacturing Outlook ................8
- Historical Market Trends .............11
- Pricing & Product Mix ..................14
- Technology ................................16
- World Demand ...........................18
- Foreign Trade ............................20
- Imports ....................................21
- Exports ....................................23

### PRODUCTS

- General ........................................26
- Precipitated Silica .......................30
- Supply & Demand .......................31
- Markets .....................................33
- Capacity & Producers ..................37
- Fumed Silica ...............................41
- Supply & Demand .......................42
- Markets .....................................43
- Capacity & Producers ..................46
- Silica Gel ...................................49
- Supply & Demand .......................51
- Markets .....................................53
- Capacity & Producers ..................56
- Silica Sol ...................................59
- Supply & Demand .......................60
- Markets .....................................61
- Capacity & Producers ..................64
- Fused Silica ...............................67
- Supply & Demand .......................68
- Markets .....................................70
- Capacity & Producers ..................71

### MARKETS

- General ........................................74

### INDUSTRY STRUCTURE

- General ........................................159

---

**Cosmetics & Toiletries** ...............78
**Cosmetic & Toiletry Outlook** ....79
**Silica Demand** ............................82
**Chemicals** .................................84
**Chemical Product Outlook** ....85
**Silica Demand** ............................88
**Rubber** ....................................92
**Rubber Outlook** .......................94
**Silica Demand** ............................95
**Tire Rubber** ..............................97
**Nontire Rubber** .........................101
**Coatings & Inks** ......................104
**Coating & Ink Outlook** ..........104
**Silica Demand** ............................106
**Electrical/Electronic Equipment** ..109
**Electrical & Electronic Equipment Outlook** 110
**Silica Demand** ............................112
**Plastics** ...................................116
**Plastics Outlook** ......................117
**Silica Demand** ............................120
**Food & Beverages** ...................124
**Food & Beverage Outlook** ....124
**Silica Demand** ............................127
**Agriculture & Animal Health** ....131
**Agriculture Outlook** ...............132
**Silica Demand** ............................136
**Paper & Textiles** ......................139
**Paper & Textile Outlook** ....140
**Silica Demand** ............................142
**Metals & Refractories** ............146
**Metal & Refractory Outlook** .....147
**Silica Demand** ............................149
**Other** .....................................152
**Adhesives & Sealants** .............154
**Packaging** ................................155
**Insulation** .................................157
**Water Treatment** .....................158

**Market Share** ............................161
**Acquisitions & Divestitures** ......166
**Competitive Strategies** ...........167
**Cooperative Agreements** ..........169
**Manufacturing** ..........................172
**Marketing & Distribution** ........173

### COMPANY PROFILES

- Akzo Nobel ..................................176
- AZ Electronic Materials ................178
- Bayer AG ....................................179
- Cabot Corporation .........................181
- Cabot Microelectronics ..................183
- Ceradyne Incorporated ..................185
- Denki Kagaku Kogyo .................187
- Kabushiki Kaisha .................187
- DENTSPLY International ............188
- DuPont (E1) de Nemours ..............190
- Evonik Industries .......................192
- Fuji Silysia Chemical ..............195
- Glassven CA ...............................196
- Grace (WR) & Company ...............198
- Huber (JM) Corporation .............200
- Imerys SA ................................202
- Industrias Quimicas del Ebro ....203
- Kemira Oyj ................................205
- Merck KGaA ................................206
- Multisorb Technologies ............208
- Nalco Holding .........................209
- Nissan Chemical Industries .......211
- Orisil Limited .......................213
- PPG Industries .........................214
- PQ Corporation .........................216
- Precision Electro Minerals ........218
- Qingdao Makall .......................219
- Rhodia SA ................................220
- Tokuyama Corporation .............222
- Wacker Chemie .......................224
- Other Companies Mentioned in the Study ....................227

---

[Click here to purchase online](#)
List of Tables

EXECUTIVE SUMMARY
1 Summary Table ..................... 3

MARKET ENVIRONMENT
1 Macroeconomic Indicators .......... 8
2 Manufacturers’ Shipments .......... 11
3 Specialty Silica Market, 2000-2010 .... 13
4 Specialty Silica Pricing ............. 15
5 Specialty Silica Foreign Trade ... 21

PRODUCTS
1 Specialty Silica Demand by Type .......... 28
2 Precipitated Silica
Supply & Demand ............. 33
3 Precipitated Silica Markets .... 37
4 Precipitated Silica Production
Capacity by Company, 2010 .... 40
5 Fumed Silica Supply
& Demand .................. 43
6 Fumed Silica Markets ............. 46
7 Fumed Silica Production
Capacity by Company, 2010 .... 49
8 Silica Gel Supply & Demand .... 52
9 Silica Gel Markets ............... 56
10 Silica Gel Production Capacity
by Company, 2010 ............ 59
11 Silica Sol Supply & Demand .... 61
12 Silica Sol Markets ............... 64
13 Silica Sol Production Capacity
by Company, 2010 ............. 67
14 Fused Silica Supply
& Demand .................. 69
15 Fused Silica Markets .......... 71
16 Fused Silica Production
Capacity by Company, 2010 .... 73

MARKETS
1 Specialty Silica Demand
by Market .................. 76
2 Cosmetic & Toiletry
Shipments ................. 81
3 Cosmetic & Toiletry Market for
Specialty Silicas by Type .... 84
4 Chemical Product Shipments ... 88
5 Chemical Market for
Specialty Silicas by
Type & Application .... 92
6 Rubber Consumption .......... 95
7 Rubber Markets for Specialty
Silicas by Type ............ 97
8 Tire Rubber Market for
Specialty Silicas .......... 101
9 Nontire Rubber Market for
Specialty Silicas ......... 103
10 Coating & Ink Shipments .... 106
11 Coating & Ink Market for
Specialty Silicas by Type ... 109
12 Electrical & Electronic
Equipment Shipments .... 112
13 Electrical & Electronic
Equipment Market for
Specialty Silicas by Type .... 116
14 Plastics Indicators ............ 120
15 Plastics Market for
Specialty Silicas by
Type & Application ....... 123
16 Food & Beverage Shipments .. 127
17 Food & Beverage Market
for Specialty Silicas by
Type & Application ...... 131
18 Agriculture Indicators ......... 136
19 Agriculture & Animal Health
Market for Specialty Silicas
by Type .................... 139
20 Paper & Textile Product
Shipments .................. 142
21 Paper & Textile Market for
Specialty Silicas by Type .... 146

INDUSTRY STRUCTURE
1 US Specialty Silica Sales by Company, 2010 ....... 160
2 Selected Cooperative Agreements .......... 171

List of Charts

MARKET ENVIRONMENT
1 Specialty Silica Market, 2000-2010 ............ 13
2 Specialty Silica Flow Chart ....... 17
3 Specialty Silica Imports by Source, 2010 ......... 23
4 Specialty Silica Exports by Destination, 2010 .... 25

PRODUCTS
1 Specialty Silica Demand by Type, 2010: Volume Versus Value .......... 29

MARKETS
1 Specialty Silica Demand by Market, 2010: Volume Versus Value .......... 77

INDUSTRY STRUCTURE
1 US Specialty Silica Market Share by Company, 2010 .......... 162
Gains will be fueled by strong growth in the sizable precipitated silica segment, as well as above-average gains for fumed silica, both driven by renewed growth in the large rubber market.

US demand to rise 5.8% annually through 2015

US demand for specialty silicas is forecast to rise 5.8 percent annually to $1.7 billion in 2015. Market volume will also climb at a healthy clip, rebounding from the declines of the recession-impacted 2005-2010 period. Specialty silica demand will benefit as the economy recovers and growth in manufacturing output resumes. Market expansion will be fueled by strong growth in the sizable precipitated silica segment, as well as above-average gains for fumed silica. Advances for both product types will primarily stem from renewed growth in the large rubber market, as production levels in key sectors, such as motor vehicles and industrial machinery, increase robustly.

Fumed silica to be fastest growing product

Fumed silica is expected to be the fastest-growing segment of the specialty silica market through 2015. Gains will be fueled by a strong rebound in nontire rubber consumption following the significant declines experienced between 2005 and 2010. Precipitated silica will remain the leading segment of the specialty silica market in both volume and value terms. This silica type is expected to advance roughly in line with the overall market through 2015, promoted by above-average gains in the large rubber sector. In particular, advances will be supported by the growing utilization of precipitated silica in silica-reinforced low rolling-resistance tires, which offer greater fuel efficiency than conventional tires. Precipitated silica will also find use in a number of other markets. Among these, plastics and chemicals are projected to offer the best opportunities for growth.

Rubber market to offer best growth opportunities

Among specialty silica markets, the rubber market is forecast to expand at the most rapid pace through 2015, when it will reclaim its position as the leading outlet for specialty silicas in dollar terms. This market can be divided into tire and nontire applications, with the better growth prospects expected for nontire rubber. This segment -- which includes the production of silicone rubber and industrial rubber products -- is forecast to rise at a double-digit annual pace from a depressed 2010 base. Advances will be fueled by increased US rubber consumption, as domestic production of motor vehicles and other manufactured goods improves considerably. In the tire segment, precipitated silica will increasingly find use in low rolling-resistance tires, demand for which will be promoted by efforts on the part of vehicle manufacturers to improve fuel efficiency in order to comply with ever more stringent governmental regulations, as well as to satisfy consumer demand for improved gas mileage.
The US market for precipitated silica is forecast to expand 4.0 percent annually to 510 million pounds in 2015, rebounding from the weak performance of the 2005-2010 period. Demand will continue to benefit from the use of precipitated silica as a replacement for carbon black in tire reinforcement applications. Advances will be promoted by increases in rubber consumption following the declines registered during the decade from 2000 to 2010. Precipitated silicas find use in a wide variety of other markets as well. Among these, demand in the plastics, chemicals, and coatings and inks markets is expected to be favorable. However, overall volume gains will be restricted by maturity in such markets as agriculture and animal health, food and beverages, and paper and textiles.

Historically, international trade in precipitated silica has been limited by high transportation costs. However, in the mid- to late 1990s, domestic overcapacity combined with strong European demand for silica in “green” tire applications led to increased export activity. In 2010, exports accounted for about one-third of US precipitated silica production, up from about one-fifth in 2005. Although the US is projected to remain a net exporter of precipitated silica throughout the forecast period, advances are forecast to decelerate as precipitated silica production increases in other countries, particularly China. Nevertheless, US exports will continue to expand as precipitated silica demand increases in regions which lack sufficient capacity.

Although the flow of precipitated silica into the US will decelerate from the pace of the 2005-2010 period, US imports of precipitated silica are projected to outpace exports through 2015. Precipitated silica is manufactured in various nations throughout the world. A large share of imports comes from Asia and Western Europe, with Germany being particularly important. However, transportation
Industrias Quimicas del Ebro SA specializes in the manufacture of soluble silicates and derivatives. The privately held company sells its products to the detergents, ceramics, rubber, paint, construction, water treatment, paper, food and beverage, and electrodes markets, among others.

The Company participates in the US specialty silica industry through the IQESIL SA subsidiary (Spain), which manufactures precipitated silicas and aluminum silicates. IQESIL’s silicas, which are sold under the IBERSIL and EBROSIL brand names, are made in fine powder, compact granular and spherical forms for a range of industrial, consumer and other markets. IBERSIL silicas feature high absorption qualities and can be used as anticaking agents in human and animal food applications, as carriers for additives, and in the pharmaceutical and coatings markets. Among these silicas are the D-100 grade, which has enhanced performance in milling applications; D-250 grade, which has larger particle sizes and is typically used as a carrier; and A-150 grade with small particle size for use as an anticaking and fluidizing agent. The company’s EBROSIL silicas are intended for reinforcing...
Order Information

Five Convenient Ways to Order

ONLINE: www.freedoniagroup.com
MAIL: Print out and complete the order form and send to The Freedonia Group (see address at the bottom of this form)
PHONE: Call toll free, 800.927.5900 (US) or +1 440.684.9600
FAX: +1 440.646.0484 (US)
EMAIL: info@freedoniagroup.com

Free Handling & Shipping
There is NO charge for handling or UPS shipping in the US. Expect delivery in 3 to 5 business days. Outside the US, Freedonia provides free airmail service. Express delivery is available at cost.

Orders Outside of the US
Checks must be made payable in US funds, drawn against a US bank and mailed directly to The Freedonia Group. For wire transfers please contact our customer service department at info@freedoniagroup.com. Credit cards accepted.

Credit Card Orders
For convenience, Freedonia accepts American Express, MasterCard or Visa. Credit card purchases must include account number, expiration date and authorized signature.

Save 15%
If you order three (3) different titles at the same time, you can receive a 15% discount. If your order is accompanied by a check or wire transfer, you may take a 5% cash discount (discounts do not apply to Corporate Use Licenses).

Corporate Use License
Now every decision maker in your organization can act on the key intelligence found in all Freedonia studies. For an additional $2600, companies receive unlimited use of an electronic version (PDF) of the study. Place it on your intranet, e-mail it to coworkers around the world, or print it as many times as you like.

Click here to learn more about the Corporate Use License

Order Form

Specialty Silicas ............................................................ $4800

☐ Corporate Use License (add to study price) * $2600

☐ Additional Print Copies @ $600 each *

Total (including selected option) $_____________________

☐ Enclosed is my check (5% discount) drawn on a US bank and payable to The Freedonia Group, Inc., in US funds (Ohio residents add 7.75% sales tax)

☐ Bill my company ☐ American Express ☐ MasterCard ☐ Visa

MM YY

Credit Card #

Expiration Date

Name ___________________________________________

Title ___________________________________________

Company _______________________________________

Division _________________________________________

Street __________________________________________ (No PO Box please)

City/State/Zip ___________________________________

Country _________________________________________

Phone ___________________________ Fax __________

Email _________________________________________

☐ Individual Use License Agreement
The undersigned hereby represents that the above captioned study will be used by only __individual(s) who are employees of the company and that the study will not be loaded on a network for multiple users. In the event that usage of the study changes, the Company will promptly notify Freedonia of such change and will pay to Freedonia the appropriate fee based on Freedonia’s standard fee schedule then in effect. Note: Entire company corporate use license, add $2600; one additional user, add $600; two additional users, add $1200; three additional users, add $1800.

☐ Corporate Use License Agreement
The above captioned study may be stored on the company’s intranet or shared directory, available to company employees. Copies of the study may be made, but the undersigned represents that distribution of the study will be limited to employees of the company.

Signature _______________________________________

☐ Please check appropriate option and sign below to order an electronic version of the study.

The Freedonia Group, Inc. 767 Beta Drive • Cleveland, OH • 44143-2326 • USA • Web site: www.freedoniagroup.com
Tel US: 800.927.5900 or +1 440.684.9600 • Fax: +1 440.646.0484 • e-mail: info@freedoniagroup.com
OTHER STUDIES

World Silicones
This study examines the world market for silicones. It presents historical demand data for the years 2000, 2005 and 2010 and forecasts for 2015 and 2020 by market (e.g., construction, chemical, health care, transportation, electrical and electronic), product (e.g., fluids, elastomers, resins, gels), world region and for 15 national markets. The study also considers market environment factors, details industry structure, evaluates company market share and profiles industry participants.

#2779 ................. August 2011 ................. $5900

Silicones
US demand for silicones is forecast to rise 5.3 percent annually through 2014. Consumer goods such as cosmetics and toiletries will remain a fast growing market, as will medical products. Silicone gels will be the fastest growing type, driven by robust growth in demand for gel encapsulants in LED and photovoltaic applications. This study analyzes the $2.8 billion US silicone industry, with forecasts for 2014 and 2019 by product, market and application. It also evaluates company market share and profiles industry players.

#2665 ................. July 2010 ................. $4700

World Specialty Silicas
World specialty silicas demand will rise 6.3 percent yearly through 2014, driven by growth in key silica markets such as tires, rubber, chemicals and agricultural products. Precipitated silica will remain the dominant product type and lead gains. The Asia/Pacific region will grow at the fastest pace. This study analyzes the two million metric ton world specialty silica industry, with forecasts for 2014 and 2019 by product, market, world region and for 14 countries. It also evaluates company market share and profiles industry participants.

#2644 ................. June 2010 ................. $5800

Industrial Rubber Products
US industrial rubber product demand will rise 6 percent yearly through 2014, driven mainly by rebounding levels of motor vehicle production and accelerating output in the machinery industry. Mechanical rubber goods will remain dominant and grow the fastest. Machinery will be the fastest growing market. This study analyzes the $13.2 billion US industrial rubber product industry, with forecasts for 2014 and 2019 by raw material, product and market. It also evaluates company market share and profiles industry players.

#2620 ................. April 2010 ................. $4800

World Rubber & Tire
Global rubber consumption will rise 4.1 percent yearly through 2013. The Asia/Pacific region will remain the largest and fastest-growing market. Non-tire rubber demand will outpace tire rubber. Tire rubber will continue to benefit from strong growth in Asia, despite a decline in rubber usage per tire. This study analyzes the 22 million metric ton world rubber industry, with forecasts for 2013 and 2018 by type, market, world region and for 30 countries. It also evaluates company market share and profiles industry players.

#2575 ................. January 2010 ................. $5900

About The Freedonia Group

The Freedonia Group, Inc., is a leading international industry market research company that provides its clients with information and analysis needed to make informed strategic decisions for their businesses. Studies help clients identify business opportunities, develop strategies, make investment decisions and evaluate opportunities and threats. Freedonia research is designed to deliver unbiased views and reliable outlooks to assist clients in making the right decisions. Freedonia capitalizes on the resources of its proprietary in-house research team of experienced economists, professional analysts, industry researchers and editorial groups. Freedonia covers a diverse group of industries throughout the United States, the emerging China market, and other world markets. Industries analyzed by Freedonia include:

- Chemicals
- Plastics
- Life Sciences
- Packaging
- Building Materials
- Security & Electronics
- Industrial Components & Equipment
- Automotive & Transportation Equipment
- Household Goods
- Energy/Power Equipment

Freedonia Custom Research

Freedonia Custom Research delivers the same high quality, thorough and unbiased assessment of an industry or market as an industry study. Since the research initiative is based upon a company's specific needs, companies harness Freedonia's research capabilities and resources to answer unique questions. When you leverage the results of a Freedonia Custom Research engagement, you are able to obtain important answers to specific questions and issues associated with: mergers and acquisitions, new product launches/development, geographic expansion, entry into new markets, strategic business planning, and investment and funding decisions.

Freedonia Custom Research is ideal for companies seeking to make a strategic difference in the status quo and focus on future business growth. Working side by side with clients, Freedonia's team is able to define a research project that is custom-tailored to answer specific questions and provide the basis from which a company can make informed business decisions.