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World Specialty Silicas

Industry Study with Forecasts for **2014 & 2019**

Study #2644 | June 2010 | \$5800 | 285 pages



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Gains will be driven by growth in key silica markets such as tires, rubber, chemicals and agricultural products, and by rising silica use in developing economies such as China and India.

Global demand to rise 6.3% yearly through 2014

World demand for specialty silicas -- which include precipitated silica, fumed silica, silica gel and silica sol -- will rise 6.3 percent per year to 2.7 million metric tons in 2014. In value terms, demand will rise 6.8 percent per year to \$5.8 billion. Both volume and value growth will accelerate from the performance of the 2004-2009 period, in which silica demand was hampered by the global economic downturn. Gains will be driven by a rise in world manufacturing activity, particularly in key silica markets such as tires, rubber, chemicals and agricultural products. Additionally, demand will benefit from the rising levels of silica use in developing economies such as China and India, as the industrial sectors in these countries increase their utilization of silica as an additive or processing aid in manufactured goods. However, gains will be limited to some extent by market maturity in the US and Western Europe, particularly in applications such as toothpaste abrasives, pesticides and refractories.

Precipitated silica to be fastest growing type

Precipitated silica, which accounted for 70 percent of world specialty silica demand in 2009, will remain the dominant product type through the forecast period. Precipitated silica will also be the fastest-growing silica product, driven by a strong rebound in the rubber market and increasing utilization in tires as a



partial replacement for carbon black. Chemical applications, including coatings, inks and catalysts, will also be an area of growth for precipitated silica. Fumed silica gains will be fueled by a rebound in the production of silicone rubber, which accounts for a large portion of demand. Silica sol is expected to continue to see favorable opportunities in paper coatings, while also increasing its share of the semiconductor polishing market.

Rubber, chemical markets to offer best prospects

Rubber is the largest market for specialty silicas, and will account for 45 percent of total demand in 2014. A strong turnaround in the world rubber industry,

which was hard-hit by the 2008-2009 economic downturn, will benefit silica demand. Additionally, the increasing penetration of "green" tires, which use precipitated silica to lower rolling resistance and improve motor vehicle fuel economy, will bolster demand. Silicas will also see strong gains in demand in the chemicals market, as more of these products employ silica additives to improve their processability and performance. Demand in food and feed applications will be driven by an increase in processed food and beverage production, especially in the developing world. The cosmetics and toiletries market for silicas will see more limited gains, as the use of silica in toothpaste is becoming increasingly mature.

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Sample Text, Table & Chart

ASIA/PACIFIC

China: Products

Demand for specialty silicas in China is forecast to rise significantly in 2014, the second-fastest growth rate in the world. China is already the largest consumer of specialty silicas and is expected to increase its share of the market to approximately 40% by 2014. Advances will be driven by the growing penetration of silicas in applications such as toothpaste and chemicals. Robust demand is expected across the entire range of specialty silica products, with silica exhibiting the most rapid gains.

However, precipitated silica will continue to dominate the market in China, accounting for 81 percent of total silica demand in 2014. Demand increased fivefold from 1999 to 2009, driven primarily by rubber and tire markets. A large portion of precipitated silica demand in China is consumed by the country's enormous footwear industry. In footwear, silica is prized as a reinforcement material in rubber soles as it has a neutral effect on shoe color, unlike carbon black. Tires are also a large market for precipitated silica in China, and also the fastest-growing, as tire production in the country is rising rapidly while consuming higher volumes of silica per tire. Precipitated silica is also widely used in China for agricultural applications, including as a carrier for pesticides and an additive for animal feed. Each of these is a growth market for precipitated silica, as pesticide use in China is likely to remain high (unlike some other parts of the world), and livestock production will continue to satisfy growing demand for meat among China's middle class. Other markets for precipitated silica in China, including coatings, food and paper, are also expected to see strong gains in demand.

Fumed silica has been the most rapidly growing specialty product in China in recent years with demand rising more than

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TABLE VI-3

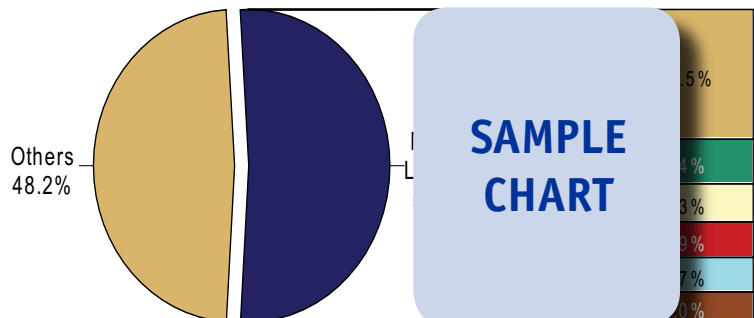
CHINA -- SPECIALTY SILICA SUPPLY & DEMAND

Item	1999	2004	2009	2014	2019
Population (million persons)	1,212	1,371	1,529	1,687	1,845
per capita GDP	\$1,000	\$2,000	\$4,000	\$6,000	\$8,000
Gross Domestic Product (bil 2008\$)	10,000	20,000	40,000	60,000	80,000
Manufacturing Value Added (bil 2008\$)	10,000	20,000	40,000	60,000	80,000
Chemical Mfg Value Added (bil 2008\$)	10,000	20,000	40,000	60,000	80,000
Rubber Demand (000 metric ton)	10,000	20,000	40,000	60,000	80,000
kg silica/capita	10,000	20,000	40,000	60,000	80,000
kg silica/mil \$ MVA	10,000	20,000	40,000	60,000	80,000
Specialty Silica Demand (000 metric ton)	10,000	20,000	40,000	60,000	80,000
net exports	10,000	20,000	40,000	60,000	80,000
Specialty Silica Prdctn (000 metric ton)	10,000	20,000	40,000	60,000	80,000

SAMPLE TABLE

CHART VIII-1

WORLD SPECIALTY SILICA MARKET SHARE (\$4.2 billion, 2009)

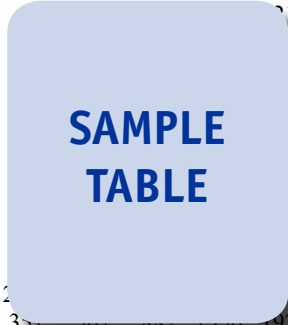


SAMPLE CHART

Sample Profile, Table & Forecast

TABLE VI-5
CHINA -- SPECIALTY SILICA DEMAND BY MARKET
 (thousand metric tons)

Item	1999	2004	2009	2014	2019
Specialty Silica Demand					115
Rubber:					92
Tire					42
Non-Tire					50
Industrial Processing					16
Chemicals					76
Food & Feed					35
Cosmetics & Toiletries					54
Other					2
% China	2	7	11	11	11
Asia/Pacific Specialty Silica Demand	351	507	682	1,330	1,925



COMPANY PROFILES

Fuso Chemical Company Limited
 Nissei Fushimi-machi Building Shinkan
 3-10, Koraibashi 4-chome
 Chuo-ku, Osaka 541
 Japan
 816-620-
 http://wv

Sales: \$
 Employr
 Key Proc

**SAMPLE
PROFILE**

Fuso Chemical is a diversified chemical manufacturer that produces fruit acids, colloidal silicas and resin additives. The Company operates through three segments: Life Science, Electronic Materials and Functional Chemicals.

The Company is active in the world specialty silica industry through the production of colloidal silicas, which are sold under the QUARTRON PL brand name. High-purity grades of QUARTRON PL colloidal silicas are dispersible in various organic solvents, including alcohol, ketone, ether and toluene. These silicas are intended for use in semiconductor and liquid crystal display applications. Ultra-high-purity grades of QUARTRON PL colloidal silicas are prepared via the particle growth method using hydrolysis and condensation with high-purity alkoxysilane as a starting material. These grades are typically utilized in chemical mechanical planarization process, silicon wafer polishing and coating applications. The Company produces colloidal silicas and other products at plants in Kyoto, Osaka and Juso, Japan.

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“Demand for specialty silicas in China will rise 10.7 percent per year to 815,000 metric tons in 2014, accounting for 60 percent of the Asia/Pacific total. Robust increases in Chinese manufacturing output will drive strong gains across virtually the entire range of silica markets. Rubber will remain the dominant outlet for silicas in China, consuming two-thirds of total demand in 2014 -- more than in any other country of the world. China’s world-leading footwear industry accounts for most of the demand in the rubber market; however, ...”
 --Section VI, pg. 155

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OTHER STUDIES

World Industrial Rubber Products

Global industrial rubber product demand will climb 4.3% yearly through 2013. China will surpass the US to become the largest national market, and claim over one-third of all new demand. Advances will be stronger in the hose and belt segments, while mechanical rubber goods remains dominant. This study analyzes the \$79.3 billion world industrial rubber product industry, with forecasts for 2013 and 2018 by market, product, world region and for 27 countries. It also evaluates company market share and profiles industry players.

#2609 March 2010..... \$5800

Food & Beverage Additives

US demand for food and beverage additives is forecast to expand 3.5 percent annually through 2014. Flavor products and alternative sweeteners will remain the largest product types, while nutraceuticals (e.g., vitamins, minerals, herbal extracts, probiotics) will see the most rapid gains. This study analyzes the \$7.2 billion US food and beverage additive industry, with forecasts for 2014 and 2019 by product and application. It also evaluates company market share and profiles industry competitors.

#2607 February 2010..... \$4800

World Carbon Black

World demand for carbon black is forecast to rise 4.3% annually through 2013. Growth in the non-tire rubber product market will outpace growth in the dominant motor vehicle tire sector, while the smaller special blacks market will rise the fastest. The Asia/Pacific region will post the strongest gains. This study analyzes the 9.4 million metric ton world carbon black industry, with forecasts for 2013 and 2018 by market, world region and for 25 countries. It also evaluates company market share and profiles industry players.

#2596 February 2010..... \$5700

World Rubber & Tire

Global rubber consumption will rise 4.1% 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

Specialty Silicas

US specialty silica demand is projected to increase 3.7% annually through 2013, led by healthy advances in the large precipitated silica segment. The tire rubber market will expand at an above-average rate, reflecting greater use of precipitated silica in the production of "green" tires, which offer increased fuel efficiency and enhanced performance. This study analyzes the \$1.4 billion US specialty silica industry, with forecasts for 2013 and 2018 by product and market. It also evaluates company market share and profiles industry players.

#2491 April 2009 \$4600

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