World Kaolin

Industry Study with Forecasts for 2013 & 2018

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INDUSTRY STRUCTURE

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Demand to reach 24.8 million metric tons in 2013

Global demand for kaolin is forecast to grow 1.7 percent per year to 24.8 million metric tons in 2013, exceeding the growth achieved between 2003 and 2008. Demand for kaolin in paper production is expected to improve, offsetting an expected slowdown in the ceramics market. In general, kaolin demand in advanced economies is projected to recover from the declines of the 2003-2008 period, while demand in the faster growing emerging markets will decelerate somewhat. Valued in dollars, the kaolin market is projected to grow nearly two percent per year to more than $3.4 billion in 2013, restrained by moderating increases in energy costs and reduced inflationary pressure.

Developing Asian markets to drive most new demand

Developing countries are becoming increasingly important to global kaolin demand. Strong demand gains in China and other developing countries in Asia are expected to account for the majority of global kaolin demand in 2013, with China alone accounting for over one-half of the global gain. China is forecast to surpass the US as the largest market for kaolin by 2013, as its kaolin consumption continues to grow faster than that of any other major national market. China’s market for kaolin in paper is forecast to lead gains, driven by a rapidly expanding domestic paper industry. Imports into China are expected to grow especially fast, as the country’s kaolin consumption outpaces production.

Paper uses to rebound from recent declines

Demand for kaolin in paper -- the largest end use -- is forecast to rebound from its declines between 1998 and 2008. Over that period, kaolin suffered from competition with alternative materials (notably calcium carbonate), and that competition is expected to moderate in coming years. By 2008, much of the practical substitution of kaolin by calcium carbonate had already taken place. In addition, emerging markets such as China are expected to post strong gains as their paper industries expand.

Brazil to surpass US as leading kaolin exporter

International trade in kaolin is widespread, with approximately one-half of kaolin being consumed outside of its country of origin in 2008. This is in part due to the concentration of kaolin production in the US and Brazil. By 2013, Brazil is expected to surpass the US as the world’s leading exporter of kaolin, gaining market share in Western Europe and Asia at the expense of the United Kingdom and the US. Brazil boasts sizable deposits of high-quality kaolin, making it economical to produce kaolin there, despite the additional shipping costs.
ASIA/PACIFIC

China: Demand by Market

The ceramics market accounted for the largest share of kaolin demand in 2008, but the paper market is becoming an increasingly important source of demand. The other markets have also posted gains over the past decade, benefiting from rapid growth of manufacturing activity.

The ceramics market for kaolin in China is the world’s largest. China was already the world’s leading producer of sanitaryware by 1998, but in the subsequent decade production doubled as the industry became increasingly export-oriented. China is also the world’s leading producer of tableware, most of which is exported. Through 2013, demand gains for kaolin in the ceramics market are forecast to decelerate, although they will continue to be faster than the global average for this market.

China is the world’s second largest producer of paper and paperboard, behind only the US. The Chinese paper market for kaolin is small relative to its paper production, owing to the small share of coated paper produced (although it is growing). Demand for kaolin is also encumbered by the widespread use of calcium carbonate and talc in place of kaolin. However, the paper market is growing especially fast in China as paperboard production in China grew four times faster than the global average over the past decade. Through 2013, the paper market is forecast to lead kaolin gains in China.

Demand for kaolin in China is projected to expand $1.4 billion in 2013. The average price of kaolin used in China will continue to rise as the paper market becomes more important, due to the higher average cost of kaolin used in that market. However, more moderate growth of energy costs will result in kaolin prices rising slower than they did between 2003 and 2008.
**COMPANY PROFILES**

**English Indian Clays Limited**
N-75 Connaught Circus  
New Delhi 110 001  
India  
91-11-4760-9900  
http://www.eicl.in

Sales: $65 million (FY 2009)  
Employment: 300 (estimated)

Key Products: calcined and hydrous kaolins

English Indian Clays is a leading processor of kaolin. It operates in two segments: Clay Products and Starch and Allied Products.

The Company competes in the world kaolin industry through the Clay Products segment, which generated sales of $34 million, including eliminations, in FY 2009. The Clay Products segment specializes in the manufacture of high-end kaolins. Via this segment, English Indian Clays produces kaolin clay in calcined and hydrous varieties. Among the Company’s calcined kaolin products are those sold under the HIMAFINE, HIMACOT, HIMAFIL, HIMAPOL and HIMACEM brand names. HIMAFINE is an ultra-fine grade that is used to improve the opacity of recycled board, and thermal and offset papers. The Company’s HIMACOT clays are engineered for use as a precoating for papers to improve ink absorption and printability. HIMAFIL is a high-whiteness grade of kaolin clay for paper, paint, plastic, rubber and soap applications. English Indian Clays’ HIMAPOL clay is engineered for use as an insulating filler in medium- and high-voltage cable compounds. HIMACEM kaolin clays from the Company are used primarily as cement additives.

---

**TABLE VI-3**

<table>
<thead>
<tr>
<th>Item</th>
<th>1998</th>
<th>2003</th>
<th>2008</th>
<th>2013</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP (bil 2007$)</td>
<td>3056</td>
<td>4634</td>
<td>7742</td>
<td>11170</td>
<td>15940</td>
</tr>
<tr>
<td>Manufacturing Value Added (bil 2007$)</td>
<td>73</td>
<td>132</td>
<td>2584</td>
<td>3960</td>
<td>5910</td>
</tr>
<tr>
<td>m ton/mil $ GDP</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>m ton/mil $ MVA</td>
<td>0.30</td>
<td>0.32</td>
<td>0.33</td>
<td>0.32</td>
<td>0.30</td>
</tr>
<tr>
<td>Kaolin Demand (000 metric tons)</td>
<td>910</td>
<td>1470</td>
<td>2570</td>
<td>3570</td>
<td>4750</td>
</tr>
<tr>
<td>- imports</td>
<td>60</td>
<td>260</td>
<td>360</td>
<td>530</td>
<td>760</td>
</tr>
<tr>
<td>+ exports</td>
<td>450</td>
<td>760</td>
<td>1180</td>
<td>1250</td>
<td>1400</td>
</tr>
<tr>
<td>Kaolin Shipments (000 metric tons)</td>
<td>1300</td>
<td>1970</td>
<td>3390</td>
<td>4290</td>
<td>5390</td>
</tr>
</tbody>
</table>

---

“Over the past decade, demand for kaolin in China grew at a double-digit annual rate, benefiting from its rapid economic expansion. Through 2013, the pace is expected to slow, although China will remain the fastest growing of the world’s major national markets. Demand for kaolin in China is forecast to rise 6.8 percent per annum to 3.6 million metric tons in 2013.”

--Section VI, pg. 100
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<tbody>
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<td>[ ] Corporate Use License (add to study price)</td>
<td>+ $2600</td>
</tr>
<tr>
<td>[ ] Additional Print Copies @ $600 each</td>
<td>+ $600</td>
</tr>
<tr>
<td>Total (including selected option)</td>
<td>$2600</td>
</tr>
</tbody>
</table>

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INDUSTRY MARKET RESEARCH FOR BUSINESS LEADERS, STRATEGISTS, DECISION MAKERS

Other Studies

Nonwovens
Demand for nonwoven roll goods in the US is projected to rise 3.7% annually through 2013. Among disposable nonwovens, consumer items will continue to claim the most sales while the filtration market grows the fastest. Within the nondisposable segment, construction will remain the largest market and grow the fastest. This study analyzes the $5.2 billion US nonwoven fabric industry, with forecasts for 2013 and 2018 by product and market. It also evaluates company market share and profiles industry players.
#2559 .................. 11/2009 .................. $4900

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 us 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 .................. 04/2009 .................. $4600

Waxes
Demand for waxes in the US is forecast to reach $2.5 billion in 2013. Value gains will be based on a shift to more expensive types. Volume growth will be driven by use of waxes in building boards, coatings, adhesives, plastics and rubber. Petroleum waxes will stay the largest market but will lose share to faster growing synthetic and natural types. This study analyzes the 2.3 billion pound US wax industry, with forecasts for 2013 and 2018 by product and market. It also evaluates company market share and profiles industry players.
#2456 .................. 04/2009 .................. $4600

World Nonwovens
Global demand for nonwoven fabrics is forecast to rise 6.9% yearly through 2012. Gains in developing parts of Asia/Pacific, Eastern Europe, Africa/Mideast and Latin America will outpace demand in developed countries. Spunmelt nonwovens, the largest segment, will also grow the fastest. This study analyzes the $21.2 billion world nonwovens industry, with forecasts for 2012 and 2017 by formation process, application, market, world region and for 19 national markets. It also evaluates company market share and profiles industry players.
#2482 .................. 03/2009 .................. $5600

Advanced Ceramics
US demand for advanced ceramics will grow 3.8% yearly through 2012. Growth in the key electronic component market will be based on materials substitution, as ceramics gain use over alternatives. The medical product market will grow the fastest, benefiting from the increasing use of ceramics in joint implants and dental procedures. This study analyzes the $10.5 billion US advanced ceramics industry, with forecasts for 2012 and 2017 by type, product and market. It also evaluates company market share and profiles industry players.
#2433 .................. 12/2008 .................. $4600