PVC in China

Industry Study with Forecasts to 2010 & 2015

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# PVC in China

Industry Study with Forecasts to 2010 & 2015

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PVC demand in China to grow 8% annually through 2010

Demand for polyvinyl chloride (PVC) in China will rise 8.0 percent annually through 2010 to twelve million metric tons, primarily driven by healthy (although moderating) growth in construction expenditures, as well as by advances in consumer spending and the growing share of plastics in packaging applications. In 2005, China consumed 8.2 million metric tons of PVC, passing the US to become the largest consumer of PVC in the world.

Northeast China to lead market gains by region

Among China’s regions, the Northeast is projected to be the fastest growing PVC market, reflecting strong growth in the region’s construction activities. The Central-East region is the largest regional market, accounting for more than one-third of PVC use, based on advantages such as a highly educated workforce, more developed technologies and wealthier consumers. The second largest regional market -- the Central-South region -- consumed slightly less than one-third of total national demand in 2005. This share will shrink slightly due to the limited resources and insufficient room for further development in Guangdong province, which is the largest PVC consuming province nationwide. The Southwest and Northwest will remain the two smallest regional markets for PVC.

PVC building materials to drive construction market

Construction is the largest market for PVC resin due to the growing use of PVC building materials, such as pipe and windows and doors. Demand for these products will be driven by efforts to reduce energy loss from buildings and to lower costs for both production and maintenance. Demand for PVC resin in the consumer and institutional market will be restrained by competition from materials such as polyurethane. Packaging will soon replace the consumer and institutional market as the second largest market, reflecting inroads by PVC into applications traditionally served by paper and metal.

Extrusion to claim over half of PVC processing market by 2010

Extrusion is the most important process used to manufacture PVC products in China, with extruded products projected to make up more than half of the market in 2010. This growth reflects good opportunities for PVC in the construction market, which accounted for more than 70 percent of extruded products demand in 2005. The second largest end use, molded products, will grow more than six percent annually, based on strong demand in packaging applications.
Sample Text, Table & Chart

PRODUCTS

Windows & Doors

Windows and doors are the largest market in the extruded PVC products segment. Demand for PVC in windows and doors will reach 2.6 million metric tons in 2010 on average annual increases of over ten percent, outpacing other markets in this segment. According to the Ministry of Construction's Eleventh Five Year Plan, the goal is to increase PVC's share of total windows and doors from 25 percent in 2005 to 30 percent in 2010.

Windows and doors are necessary components of residential and nonresidential buildings, providing light, ventilation and entry/exit access in these structures as well as playing a role in energy efficiency. Additionally, these products also serve a decorative purpose. PVC is the predominant plastic resin used in windows and doors, although fiberglass finds application in products such as entry doors and some window profiles.

Vinyl windows and doors are low maintenance products relative to wood, and offer corrosion and fungus resistance as well as durability. As a thermal insulator, vinyl is generally comparable to wood and superior to metal, giving vinyl windows good energy efficiency when furnished with insulating glass panes. New product developments in plastic windows and doors have improved the aesthetic qualities of the products, which is an important concern. A wider color palette is now available to help windows match surrounding architecture and furniture, but white has the longest durability because it reflects most ultraviolet rays causing degradation. PVC windows' relatively low strength (compared with metal) restrains their use in multi-storied buildings.

Conch Profile is the largest producer of PVC profile material (mainly used in PVC window and door manufacturing) in China, accounting for more than 30 percent of the total in 2005. Liaoning Zhongwang

TABLE III-4
PVC PRODUCTION IN CHINA
(000 metric tons)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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<tr>
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<td>2030</td>
<td>3200</td>
<td>9720</td>
<td>14000</td>
<td>18500</td>
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<tr>
<td>% utilization</td>
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<td>77.7</td>
<td>68.5</td>
<td>85.7</td>
<td>90.3</td>
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<td>6655</td>
<td>12000</td>
<td>16700</td>
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<td>Calcium Carbide:</td>
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<tr>
<td>Suspension</td>
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<td>1741</td>
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<tr>
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<td>3650</td>
<td>6700</td>
<td>9180</td>
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<td>Bulk</td>
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<td>130</td>
<td>285</td>
<td>550</td>
<td>765</td>
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<td>Ethylene:</td>
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<tr>
<td>Suspension</td>
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<td>732</td>
<td>2605</td>
<td>4625</td>
<td>6620</td>
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<tr>
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<td>14</td>
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<td>Ethylene:</td>
<td></td>
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<tr>
<td>Suspension</td>
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<td>55</td>
<td>60</td>
</tr>
</tbody>
</table>

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COMPANY PROFILES

Weifang Yaxing Chemical Company Limited
899 Yuan Fei Road, Kuei Wen District
Weifang, Shandong 261031
China
86-536-866-3853
http://www.chinayaxing.com

Sales: ¥1.2 billion (2005) [US$148 million]
Employment: 2,020 (2005)
Key Products: polyvinyl chloride and chlorinated polyethylene
International Contact: Shunxing Dong, Chairman

Weifang Yaxing Chemical Company is a leading Chinese producer of chlorinated polyethylene (CPE), and also formulates such chemicals as polyvinyl chloride (PVC), caustic soda, chlorine and other related compounds. The Company is a 44.87-percent owned subsidiary of Yaxing Group, a state-owned enterprise.

The Company participates in the Chinese PVC industry through the manufacture and sale of PVC and CPE. In 2005, PVC accounted for 17 percent, or about ¥205 million (US$25 million), of Weifang Yaxing’s total sales. The Company formulates three grades of PVC that can be used for such products as wire and cable jacketing, films, protective membranes, building profiles and materials, pipe, tubing and other consumer goods. Weifang Yaxing’s PVC, which is marketed in powder form, is designed to minimize water and particulate content, maximizing the resin’s durability and barrier qualities.

Weifang Yaxing’s CPE is used by producers of PVC window profiles, pipes and other construction products. Among other end uses,
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