Opportunities and Challenges for Polyamide Industry

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Dec. 2010

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- China's Macro-economy
- Global Trading for CPL
- Fundamentals for PA 6 Products in China
- Analysis on Spread between Products of PA 6 Chain in China
- Operation Status of PA 6 Chain in China
- Current Situation & Prospect for PA 6 Industry in China
China’s economy swiftly resurged from global financial crisis, but meantime many uncertainties exist.
- GDP increases too fast.
- CPI surpasses the settled target (3%).
- Heavy pressures weigh on energy saving & emission reduction.

Source: National Bureau of Statistics of China

Global Trading for CPL (1)

Global CPL capacity is about 4.83 million tons in 2010, while that in China accounts for 11% of the total.
Global Trading for CPL (2)

CPL Exp Data in Major Regions

<table>
<thead>
<tr>
<th>Region</th>
<th>2007 (ton)</th>
<th>2008 (ton)</th>
<th>2009 (ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>146,077</td>
<td>157,208</td>
<td>145,993</td>
</tr>
<tr>
<td>Europe</td>
<td>269,419</td>
<td>263,389</td>
<td>513,372</td>
</tr>
<tr>
<td>E. Europe</td>
<td>278,385</td>
<td>262,410</td>
<td>265,236</td>
</tr>
<tr>
<td>S. America</td>
<td>79,713</td>
<td>64,396</td>
<td>62,622</td>
</tr>
<tr>
<td>Asia</td>
<td>344,664</td>
<td>270,053</td>
<td>277,507</td>
</tr>
<tr>
<td>Total</td>
<td>1,118,256</td>
<td>1,017,456</td>
<td>1,264,730</td>
</tr>
</tbody>
</table>

CPL Imp Data in Major Regions

<table>
<thead>
<tr>
<th>Region</th>
<th>2007 (ton)</th>
<th>2008 (ton)</th>
<th>2009 (ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China Mainland</td>
<td>472,480</td>
<td>450,114</td>
<td>601,289</td>
</tr>
<tr>
<td>Taiwan</td>
<td>463,591</td>
<td>421,283</td>
<td>401,308</td>
</tr>
<tr>
<td>Asia except China</td>
<td>91,046</td>
<td>72,813</td>
<td>74,249</td>
</tr>
<tr>
<td>Others</td>
<td>91,141</td>
<td>73,246</td>
<td>187,884</td>
</tr>
</tbody>
</table>

Global Trading for CPL (3)

Global CPL Import Data in 2009

- China mainland and Taiwan are two major destinations for global CPL exports, with combined volume accounting for 80% of the total.
- In 2010, it is expected that about 50% of total CPL exports will flow into China’s market.
Fundamentals for PA 6 Products in China (1)

In the past 8 years, global CPL production has increased by 8.11%, and meantime CPL demand in China has increased by 89.83%.

In the past 8 years, apparent consumption of PA 6 in China has increased by 115.56%, with import dependence of raw materials at 75-80%.

Import volume of polyamide chips has increased by 505%.

Nylon 6 fibers have generally met domestic demand.

Fundamentals for PA 6 Products in China (2)

In the past 8 years, global CPL production has increased by 8.11%, and meantime CPL demand in China has increased by 89.83%.

In the past 8 years, apparent consumption of PA 6 in China has increased by 115.56%, with import dependence of raw materials at 75-80%.

Import volume of polyamide chips has increased by 505%.

Nylon 6 fibers have generally met domestic demand.

Source: Chinese Customs Stat. Tecnon / CCFEI
Fundamentals for PA 6 Products in China (3)

- From 1998 to 2009, the annual growth rate for CPL demand in China is about 13.3%.
- Since 2006, domestic CPL output has increased, so CPL import dependence has decreased gradually.

Source: Chinese Customs Stat. / CCFEI

Fundamentals for PA 6 Products in China (4)

- From 2003 to 2009, chip demand in China had increased with annual growth rate at about 13%.
- Demand stagnated in 2008 on financial crisis, but the growth rate in 2009 reached 29%.
- During the same period, given the anti-dumping measures on China’s CPL exports, the increase of domestic output of PA 6 chips lagged behind, leading to more demand for imports.
- In 2009, import dependence reached 40%, with net import volume at 640 kt.

Source: Chinese Customs Stat. / CCFEI
Fundamentals for PA 6 Products in China (5)

Anti-dumping Impact on Chip Imports in China

Source: Chinese Customs Stat. / CCFEI

Fundamentals for PA 6 Products in China (6)

Structure of Nylon Products in China in 2009

Source: Chinese Customs Stat. / CCFEI
In the past few years, PA polymer capacity growth in China has significantly increased. In 2008, anti-dumping measures on China’s CPL exports were terminated.

Maturity of large-scale polymerization technologies

Dynamic domestic demand
New Capacities of PA Chips in China during 2010-2011

<table>
<thead>
<tr>
<th>Producers</th>
<th>Capacity kt</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fujian Changle Lihang Nylon Technology</td>
<td>100</td>
<td>2nd-phase decided in Oct 2009, construction since end 2009</td>
</tr>
<tr>
<td>Fujian Changle Creator Nylon Industrial</td>
<td>100</td>
<td>1st-phase decided in 2009, construction since 2010</td>
</tr>
<tr>
<td>Fujian Changle Creator Nylon Industrial</td>
<td>100</td>
<td>2nd-phase during 2010-2011</td>
</tr>
<tr>
<td>Yiwu Huaiding Nylon</td>
<td>70</td>
<td>Construction since 2010</td>
</tr>
<tr>
<td>Zhejiang Mesbon Chemical Fiber</td>
<td>70</td>
<td>Possibly decided in 2010, construction since 2010-2011</td>
</tr>
<tr>
<td>Tianjin Haiying Polymerization</td>
<td>50</td>
<td>Trial run in Mar-end 2010, high-speed spinning chips, 1st-phase</td>
</tr>
<tr>
<td>Wuxi Changhu Polymer</td>
<td>40</td>
<td>Products available since Feb 2010, high-speed spinning chips</td>
</tr>
<tr>
<td>Zhejiang Huayuan Nylon</td>
<td>35</td>
<td>Fed in mid-May 2010, bright high-speed spinning chips</td>
</tr>
<tr>
<td>Jiangsu Rumeifu Industrial</td>
<td>25</td>
<td>Trial run in Jan 2010, high-speed spinning chips</td>
</tr>
<tr>
<td>Shandong Andfa Synthetic Fiber Products</td>
<td>25</td>
<td>Fed in mid Mar 2010, high-speed spinning chips</td>
</tr>
<tr>
<td>Shandong Xiangyu Chemical Fiber</td>
<td>25</td>
<td>Started up in early 2010</td>
</tr>
<tr>
<td>Shandong Shifeng Group</td>
<td>25</td>
<td>Started up in early 2010</td>
</tr>
<tr>
<td>Jiangsu Huaixing Chemical Fibers</td>
<td>23</td>
<td>On stream in April 2010, high-viscosity chips for captive use</td>
</tr>
<tr>
<td>Jangyi Qingli Chemical Fiber</td>
<td>18</td>
<td>Started up on 20 Aug 2010, for industrial application</td>
</tr>
<tr>
<td>Jiangsu Huaixing Chemical Fibers</td>
<td>8</td>
<td>Started up in Jun 2010 (30ktyr project totally completed)</td>
</tr>
</tbody>
</table>

Total: 784

Analysis on Spread between Products of PA 6 Chain in China (1)

- Since Q2 2009, economics of CPL production improved a lot, with CPL/BZ spread above $1,200/ton.
- Supports from Strong Demand in China
- Current high CPL prices have restricted the development of its downstream sectors.
Analysis on Spread between Products of PA 6 Chain in China (2)

Source: CCFEI

Analysis on Spread between Products of PA 6 Chain in China (3)

Source: CCFEI
Operation Status of PA 6 Chain in China

Run Rates of PA6 Polymerization Units in 2010

Source: CCFEI

Current Situation & Prospect for PA 6 Industry in China (1)

Competition Environment Analysis on PA 6 Chip Industry in China

Wise Choices
Upgrade
M&A

Upstream
Monopolistic Competition

Chip Industry
Overcapacity
Low Threshold
Inflow of Imports

Downstream
Meager Profit Margins
Limited Development Potential

Obvious Edges in Adjacent Regions
Review of the Market in H1 2010

- CPL prices hiked, not only activating China’s PA 6 market, but also accumulating the risks.
  - Higher feedstock prices raised buyers’ purchasing appetites and improved market vitality.
  - Run rates of the producers increased, with both production and sales thrive.
  - Speculative mood was boosted, and inventory in circulating field was high.

- With tight CPL availability in China and more involvement of traders, volatility was aggravated.
  - During May to July, CPL values slumped by $500/ton.
  - During August to November, spot values surged by $650/ton.

- During 2009-2011, domestic PA polymer capacity expands rapidly, a rise of about 900kt/yr.
  - In Jun 2008, anti-dumping measures on CPL imports were terminated.
  - Import tariff rate for CPL in 2009 was cut down to 5%, but was then raised to 7% in 2010.
  - Large-sized spinning mills extended their business towards the upstream.

- PA 6 derivatives have seen good recoveries, but lack steady fundamentals as well.
  - Derivatives, such as textile yarn, cord fabric, BOPA, BCF and engineering plastics etc., saw certain improvement.
  - Export dependence of textile products is high, while overseas orders include large uncertainty.
  - Domestic automobile industry has encountered a stagnation with high inventories, impacting the operating rates of cord fabric industry.
  - High feedstock costs restrict the development of derivative products.

Current Situation & Prospect for PA 6 Industry in China (2)

- Industrial policies moved towards an unfavorable direction.
  - Restriction on energy-intensive producers (chemical and chemical fiber industry etc.) in many provinces in East China
  - Higher costs due to stricter requirements for eco-friendly dyeing and printing.
  - Changes of policies, including the cancel of some export rebates and the restriction on the trades by processing with imported materials

- Adjustment of foreign trade policy increases industry’s uncertainty.
  - Higher tariffs on feedstock than downstream products of the PA 6 chain will change the industrial structure of neighboring countries, creating long-term impacts.
  - Anti-dumping action on CPL imports from EU and USA will curb the development of domestic PA chip makers severely.

- Free trade policy with ASEAN: PA 6 products from ASEAN enter domestic market under zero tariffs.

Forecast

- Uncertainty of Global Economy
  - Weaker Euro and fewer purchasing appetites due to debt crisis in euro zones.
  - Implementation of the quitting strategies on economic stimulus packages by every country
  - Appreciation of RMB values against US dollar

- Speculations will exist in a long-term period.
  - PA 6 capacity totals 1.6 million tons/year, convenient for speculators to take capital operations.
  - Mismatch between CPL capacity and PA chip capacity
  - Constant trade disputations on CPL’s high import dependence
Opportunities & Challenges

Opportunities
- Resurgence of global economy
- China’s urbanization drive is boosting domestic demand.
- Development of auto and electronic industries has lifted the demand for nylon industrial products.
- Anti-dumping measures on chips restricted low-priced imports.
- Technological progress & upgrade of nylon industry

Existing Problems
- Acute structure imbalance, feedstock shortage & relatively ample product supply
- Higher risks from trade policies: anti-dumping investigation on CPL imports, zero tariff for imports from ASEAN countries
- Poor technologies and R&D capability compared with developed countries
- Industrial marketing and brand construction lagged behind the industry’s development.

Thinkings
- Integration of PA chip industry
- Extension of the industry chain

About XINHUI MEIDA

Development History
- In 1970, Xinhui Nitrogen Fertilizer Plant
- In 1984, changed to Xinhui Nylon Plant
- In 1992, changed to Guangdong Xinhui Meida Nylon Co., LTD
- In 1997, listed on the stock market in SZSE
- In 2002, Guangdong Tianjian Group became the controlling shareholder for Guangdong Xinhui Meida Nylon Co., LTD.
- In 2009, establishing the target of being the best and biggest nylon production site of China
Products from XINHUI MEIDA

- PA chip capacity: 180kt/yr, with specs covering all the application fields
  - High-performance spinning chips: bright, SD and FD
  - Film-grade chips
  - High-end PA6 chips of engineering plastics grade

- Textile yarn: 70kt/yr, with many specs providing individual solution to clients
  - Diversified facilities
  - Yarn denier range of 15D-800D, bright, SD, FD, high-tenacity, and super fine denier yarns etc.

- Capacity of warp- and weft-knitted fabrics: 4.8kt/yr
  - Elastic fabrics interlaced by nylon and spandex yarns
  - Major markets: High-end underwear, swimming suits

Thank You!