China BDO-PTMEG-Spandex Industry
Chain Report, 2009-2010

The supply and demand in China’s spandex market in 2001-2009 has presented a spandex industry on the upgrade, with demand growing faster than supply. However, China’s spandex investment slowed down in 2008-2009 due to the financial crisis. In 2009, China’s spandex industry only added production capacity of 24,000 tons, up 7.1% year on year, while the demand increased by 19.1% year on year. The substantial market demand has brought new opportunities to China’s spandex industry, and accordingly will promote the advancement of the spandex investment market in the coming two years. By the end of 2011, China will have increased its spandex production capacity by about 114,000 tons, up 33.9% over 2009.
Meanwhile, the abundant supply from upstream BDO, PTMEG and pure MDI industries has also contributed to the development of spandex industry.

A case in point is PTMEG supply. Suppose that a ton of spandex requires 0.8 tons of PTMEG, China’s demand for PTMEG was 269,000 tons in 2009, which, compared with the production capacity at the time, saw a gap down to 39,000 tons. With new PEMEG facilities put into operation, the demand-supply gap will further narrow down to 31,000 tons in 2010.
This report highlights the operating environment, development, demand & supply, competition pattern, import & export, price trend and prospect of the spandex industry of China. It also sheds light on the status quo, demand & supply, import & export and price tendency of upstream BDO, PTMEG and MDI industries and downstream textile industry, as well as the development and advantages of leading spandex enterprises of China.

For instance, Huafon Spandex takes a market share of 12.6% in terms of production capacity, ranking the first place in China. In 2009, although the average price of spandex, its main product, decreased by 19% over 2008, the sales volume increased by 46.1% year on year. Furthermore, the production cost per ton decreased by 21.2% year on year because of the declining prices of main raw materials, driving substantial growth of operating revenue, total profit and gross profit margin. The operating revenue rose by 17.7% to RMB1.1959 billion; total profit increased by 62.5% to RMB123.6 million; and the gross profit margin grew to 19%. In addition, with large-scale production capacity, high product differentiation, and strong brand competitiveness, Huafon Spandex will see huge market potential.
Table of Contents

1. Overview of Spandex Industry
   • 1.1 Definition & Application of Spandex
   • 1.2 Spandex Industry Chain
   • 1.3 Spandex Technology

2. Operating Environment of Spandex Industry
   • 2.1 International Market Environment
     • 2.1.1 International Market Profile
     • 2.1.2 Major Producing Countries and Regions
   • 2.2 Domestic Environment
     • 2.2.1 Positive Factors
     • 2.2.2 Negative Factors

3. Overall Development of China’s Spandex Industry
   • 3.1 Status Quo
   • 3.2 Demand & Supply
     • 3.2.1 Change of Demand & Supply
     • 3.2.2 Supply
   • 3.2.3 Demand
   • 3.3 Market Price
     • 3.3.1 Spandex Market Price Tendency, 2006-2009
     • 3.3.2 Related Industries’ Influence on Spandex Market Price
   • 3.4 Competition Pattern
   • 3.5 Import & Export
     • 3.5.1 Spandex Elastic Single Yarn
     • 3.5.2 Spandex Yarn
     • 3.6 Prospect

4. Development of Upstream Industries
   • 4.1 PTMEG Market
     • 4.1.1 Supply
     • 4.1.2 Demand
     • 4.1.3 Import & Export
     • 4.1.4 Price Tendency
   • 4.2 MDI Market
     • 4.2.1 Supply
<table>
<thead>
<tr>
<th>Section</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2.2</td>
<td>Demand</td>
</tr>
<tr>
<td>4.2.3</td>
<td>Import &amp; Export</td>
</tr>
<tr>
<td>4.2.4</td>
<td>Price Tendency</td>
</tr>
<tr>
<td>4.3</td>
<td>BDO Market</td>
</tr>
<tr>
<td>4.3.1</td>
<td>Supply</td>
</tr>
<tr>
<td>4.3.2</td>
<td>Demand</td>
</tr>
<tr>
<td>4.1.3</td>
<td>Import &amp; Export</td>
</tr>
<tr>
<td>4.1.4</td>
<td>Price Tendency</td>
</tr>
</tbody>
</table>

| 6.2.2    | Operation |
| 6.2.3    | Prospect and Advantages |
| 6.3      | Youli Investment Holding |
| 6.3.1    | Profile |
| 6.3.2    | Operation |
| 6.3.3    | Prospect |
| 6.4      | Invista Spandex |
| 6.4.1    | Profile |
| 6.4.2    | Operation & Prospect |
| 6.5      | Yantai Spandex |
| 6.5.1    | Profile |
| 6.5.2    | Operation |
| 6.5.3    | Prospect |
| 6.6      | Hangzhou Banglian Spandex |
| 6.6.1    | Profile |
| 6.6.2    | Operation & Prospect |
| 6.7      | Zhuji Huahai Spandex |
| 6.7.1    | Profile |
| 6.7.2    | Operation |
| 6.7.3    | Prospect and Advantages |
| 6.8      | Hangzhou EBH Spandex |

### 5. Development of Downstream Industries

- **5.1 Status Quo**
- **5.2 Import & Export**
- **5.3 Prospect**

### 6. Leading Domestic Spandex Manufacturers

- **6.1 Huafon Spandex**
  - **6.1.1** Profile
  - **6.1.2** Operation
  - **6.1.3** Development Edge
- **6.2 Hyosung Spandex**
  - **6.2.1** Profile
- **6.3 Youli Investment Holding**
  - **6.3.1** Profile
  - **6.3.2** Operation
  - **6.3.3** Prospect
- **6.4 Invista Spandex**
  - **6.4.1** Profile
  - **6.4.2** Operation & Prospect
- **6.5 Yantai Spandex**
  - **6.5.1** Profile
  - **6.5.2** Operation
  - **6.5.3** Prospect
- **6.6 Hangzhou Banglian Spandex**
  - **6.6.1** Profile
  - **6.6.2** Operation & Prospect
- **6.7 Zhuji Huahai Spandex**
  - **6.7.1** Profile
  - **6.7.2** Operation
  - **6.7.3** Prospect and Advantages
- **6.8 Hangzhou EBH Spandex**
Selected Charts

- Classification and Proportion of Synthetic Fiber, Jan.-Nov., 2009
- Classification and Application Terminal of Spandex
- Proportion of Spandex by Application
- Spandex Industry Chain
- Advantages & Disadvantages of Spandex Process Route
- Proportion of Spandex by Technology Worldwide
- Capacity and Proportion of Leading Spandex Manufacturers Worldwide, 2009
- Spandex Projects Under Construction or Planning Worldwide, 2010-2011
- Worldwide Spandex Production Capacity by Region, 2009
- Operating Rate of China’s Spandex Industry, Nov., 2009
- Capacity, Output and Apparent Demand of Spandex Industry in China, 2001-2009
- Monthly Output & Year-on-Year Growth of China’s Spandex Industry, 2008-2009
- Leading Spandex Manufacturers in China, 2009
- Distribution of China’s Spandex Industry by Region, 2009
- Spandex Demand of China, 2001-2009
- Downstream Demand Structure of Spandex, 2009
- Market Price Trend of Spandex 40D in East China, 2006-2009
• Market Shares of Spandex Brands by Capacity in China, 2009
• Product Differentiation Rates of Leading Domestic Spandex Manufacturers, 2009
• Product Gross Profit Margins of Leading Domestic Spandex Manufacturers, 2009
• Import Volume & Export Volume of China’s Spandex Elastic Single Yarn, 2007-2009
• Import & Export of China’s Spandex Elastic Single Yarn, 2007-2009
• Overseas Market Distribution of China’s Spandex Elastic Single Yarn, 2009
• Import Regions and Shares of China’s Spandex Elastic Single Yarn, 2009
• Import Volume & Export Volume of China’s Spandex Yarn, 2007-2009
• Import & Export of China’s Spandex Yarn, 2007-2009
• Overseas Market Distribution of China’s Spandex Yarn, 2009
• Import Regions and Shares of China’s Spandex Yarn, 2009
• Supply & Demand Trend of China’s Spandex, 2001-2009
• Differentiation Rate of China’s Spandex, 2007-2009E
• PTMEG Manufacturers and Capacities of China, 2007-2010
• Change of PTMEG Supply to Spandex Industry in China, 2007-2010
• PTMEG Demand of China, 2005-2010E
• Import Volume & Export Volume of China’s Primary PTMEG, 2008-2009
• Import & Export of China’s Primary PTMEG, 2008-2009
• PTMEG Import Source and Distribution of China, 2009
• Price Trend of PTMEG (1800), 2006-2009
• Production Capacities of Domestic MDI Manufacturers, 2009-2013
• Operating Rate of Domestic MDI Manufacturers, Apr.-Jul. 2009
• Pure MDI Demand Structure of China, 2009
• Demand of Pure MDI, 2008-2010
• Import Volume & Export Volume of China’s Pure MDI, 2007-2009
• Import & Export of China’s Pure MDI, 2007-2009
• Overseas Market Distribution of China’s Pure MDI, 2009
• Pure MDI Import Source and Distribution of China, 2009
• MDI Price Trend and Price Difference of Raw Materials, 2008-Apr.2010
• Leading Domestic BDO Manufacturers and Capacities, 2009
• BDO Capacities and Output of China, 2004-2010E
• Projects under Construction or Planning in China, 2010-2011
• BDO Apparent Demand of China, 2004-2010E
• BDO Consumption Structure of China, 2007-2010E
• BDO Downstream Customers, 2009
• Import Volume of BDO in China, 2005-2010E
• Price Trend of BDO in China, 2007-Apr.2010
• Monthly Output of Yarn, Fabric in China, 2009-Apr.2010
• Investment Proportion of China’s Cotton Textile Industry by Region, 2009
• Import & Export of China’s Yarn, Fabric and Products, 2007-Mar.2010
• Monthly Import & Export of China’s Yarn, Fabric and Products, 2009-Mar. 2010
• Operating Revenue and Profit of Huafon Spandex, 2008-2009
• Gross Profit Margins of Huafon’s Spandex by Product, 2007-2009
• Main Business Revenue Distribution of Huafon by Region, 2009
• Operating Revenue and Net Profit of Youli Investment Holding, 2007-2010Q1
• Product Structure of Youli Investment Holding by Main Business Revenue, 2009
• Operating Revenue and Net Profit of Youli Investment Holding, 2007-2010Q1
• Product Structure of Youli Investment Holding by Main Business Revenue, 2009
• Financial Data of Youli Investment Holding and its Holding Subsidiaries Engaged in Spandex Business, 2009
• Gross Profit Margin of Youli Investment Holding and its Holding Subsidiaries Engaged in Spandex Business, 2009
• Main Business Revenue of Invista, Invista Shanghai and Invista Foshan, 2007-2008
• Operating Revenue and Profit of Yantai Spandex, 2007-2010Q1
• Main Business Revenue of Yantai Spandex, 2009
• Main Business Revenue Structure and Gross Profit Contribution by Product of Yantai Spandex, 2008-2009
• Constitution of Main Business Revenue of Yantai Spandex by Region, 2009
• Top Five Suppliers and Customers of Yantai Spandex, 2007-2009
• Main Financial Data of Hangzhou Banglian Spandex, 2008
• Sales Revenue and Net Profit of Zhuji Huahai Spandex, 2006-2008
• Net Profit Change of Zhuji Huahai Spandex, 2006-2008
• Main Business Revenue and Net Profit of Hangzhou EBH Spandex, 2006-2008
• Constitution of Sales Revenue of Hangzhou EBH Spandex by Region, 2009
• Regional Distribution of Main Raw Material Source of Hangzhou EBH Spandex, 2009
# How to Buy

<table>
<thead>
<tr>
<th>Product details</th>
<th>How to Order</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Single user</strong></td>
<td>By email: <a href="mailto:report@researchinchina.com">report@researchinchina.com</a></td>
</tr>
<tr>
<td>USD 1,700 PDF</td>
<td>By fax: 86-10-82601570</td>
</tr>
<tr>
<td><strong>Enterprisewide</strong></td>
<td>By online: <a href="http://www.researchinchina.com">www.researchinchina.com</a></td>
</tr>
<tr>
<td>USD 2,300 PDF</td>
<td></td>
</tr>
</tbody>
</table>

Publication date: May 2010

For more information, call our office in Beijing, China:
Tel: 86-10-82600828
Website: www.researchinchina.com