China’s Recycled Polyester Market: A Tough Cake?

—A Review of the 7th Recycled Polyester Forum

The 7th China International Recycled Polyester Forum, held in Shanghai during 22-23 September, welcomed over 300 participants from China and overseas, the most attendants in the history of this forum.

If you watch closely, polyester recyclers with advanced technologies from developed countries such as Germany, Japan, the UK and Switzerland are aspiring towards securing a share in China. To their disappointment, they find the cake too tough to take a bite. Such voices were also heard at the 7th China International Recycled Polyester Forum.

As traditional textile/chemical fiber giants relocate units in other countries, they regard China, with its solid industrial foundation and large scale, a land of opportunity for massive industrialization of their advanced re-PSF equipment and technology. However, they are not well-received by Chinese enterprises, which is mainly attributed to the extremely high cost of those equipment and technology, the fast developing domestic counterpart as well as currently inferior product quality given China’s immature system and policy regarding recycled resources.

The Policy-intensive Recycling Industry

Du Huanzheng, Deputy Director, Center for Studies on China's Circular Economy and Environment, labels resources recycling industry as policy-intensive, technology-intensive, labor-intensive and high-extra value, believing that policies play a more significant role in the development of resource recycling industry than in any others. He advocates that China should, through policy orientation, accelerate the establishment of a recycling system, encourage clean recycling process and lead consumption of recycled products.

In fact, policy has been a recurrent topic at recycled polyester industry conference for years. Participants have appealed for policies on import of baled post-consumer bottles, on VAT rebate for enterprises that recycle resources, and on turnover tax concerning recycling, etc. While some policies are being launched, some have yet to be put on agenda.

Following the release of The Rules for Importing Baled PET Bottles (Draft) on 26 Sep 2010, a small number of enterprises have been granted the license to import PET baled bottles, including Lunnex Chemical Fiber (Fuzhou) Co., Ltd. The Rules, according to Vice president Dan Hanliang, regulates industry management by scientific development concept and establishes industry development standards, playing a positive role in speeding up the development of recycling industry and narrowing the gap between China’s recycling industry and developed countries.

Compared with importing PET flakes, importing baled bottles have two advantages: first, cost for sorting will be reduced, as labor cost is relatively low in China; second, the quality is improved, as quality control for imported PET flakes is difficult given more impurities. The Rules have laid strict requirement on the plant type, site, production scale and affiliating facilities of applicants, in order to control pollution, save energy and improve efficiency. It also emphasizes the application of high-technology and new processes.
Changes in VAT rebate rates, from 70% in 2009 to 50% in 2010 and finally 0% in 2011, have been squeezing profit margins of enterprises selling recycled goods that are also faced with rising combined costs. Lin Shidong, Secretary General of CCFA Recycled Fiber Commission, suggested the policy be adjusted so as to reduce the risks for enterprises within the industry.

**No More Anti-dumping Issues in Short Term**

China has become the largest producer of recycled polyester fibers. In 2010, China’s recycled polyester fiber capacity totaled 6.2 million tons/year, and the output was estimated roughly at 4 million tons. According to Lin Shidong, given the development of recycling and processing technology during the 11th Five-Year Plan, the quality gap between virgin and recycled PSF has been narrowed, and the latter, with over 100 types of products, enjoys wider applications — non-woven, carpets, home textiles, and automobile textiles, etc., to name a few. While the US, Japan and developed countries in Europe maintain the lead, or even monopoly, in technology, Asia-Pacific markets are becoming more competitive, although their capacities focus on regular products; in medium- and low-end markets, Indian, Pakistan, Vietnam and Turkey are growing fast on the back of cheap labor cost and overseas experiences.

Under such situation, how to deal with global competition has become a concern for export-oriented re-PSF producers in China.

Jiangnan Chemical Fiber (Cixi), whose products are exported to numerous countries and regions including the US, has gained much experience in coping with anti-dumping issues. From December 2003 when the EU initiated an anti-dumping case on imported re-PSF from China, involving five Chinese manufacturers including Cixi Jiangnan, to June 2011 when EU officially announced that the prosecution withdrew and terminated the anti-dumping case on China — the whole thing was described by Sun Ya, vice GM of Jiangnan, as “eight years of grueling war”.

When EU initiated this case, Chinese R-PSF producers had just started turning export-oriented and were tightly restricted by saturated domestic market, small company scale and little knowledge of international litigation. Actively responding to the suit and defending themselves has not only helped the enterprises win the case, but also shed light on several approaches for further development: Firstly, building companies in other countries to hold on the EU market; secondly, changing the products from regular ones to differentiated ones, and thirdly, slowing down capacity expansion and extending business to other fields.

According to Sun Ya, the termination of EU case implied the pause of anti-dumping actions by which some countries prevented China from exporting R-PSF. On the one hand, there is strong global demand for Chinese products; in addition, local companies in the countries that initiated the cases have been able to compete with Chinese companies on cost, so they need no more anti-dumping actions.

**Opportunities Disguised under Used Clothing**

In the 21st century when sustainable development is highly valued, resource recycling industry keeps up with
the trend of the times as an essential part of the energy conservation and environmental protection industry, which is one of the seven newly-emerging strategic industries.

Overseas, increasing re-PSF consumption and exploring new applications not only saves cost and reduces raw material consumption, but also is an indispensable part of enterprises’ social responsibility. According to Dr. Shell Huang, Director of Global Packaging Research at Coca-Cola, the company aims at sourcing 25% of its polyethylene terephthalate (PET) plastics from recycled or renewable material. At present, Coca-Cola mainly relies on weight reduction, recycled materials and life-cycle effectiveness as a sustainable packaging strategy. Noteworthily, it has lately introduced PlantBottle, the feedstock of which consists of MEG made from plants (already commercialized) and PTA made from traditional sources (still under research). The point of “plant-based” is, said Dr. Huang, to recycle resources instead of disposing waste bottles through biodegradation.

The 12th Five-Year Plan for Chemical Fiber Industry emphasizes the debottlenecking of the recycling program of end-products made from chemical fibers (mainly polyester) by developing the chemical approach. By now, the raw materials of China’s re-PSF industry mainly come from waste PET bottles and secondarily from waste fibers and popcorn. The recycling of waste clothes and other articles of daily use, on the other hand, is lagging behind. Industry sources attribute its slow progress to the policy vacuum and backward technologies in this field.

To prevent diseases from spreading, China has mostly abolished the collection/sales system of second-hand clothes. Meanwhile, there is little policy support for clothing recycling. As a result, most of disposed clothing are buried or burned, causing pollution and resource waste. What’s more, the absence of effective supervision and orientation brings many problems such as safety and health problems, as well as smuggling and tax evasion, etc.

Lin Shidong advocates that related governmental departments should refer to the practices of other countries and earlier ones of China, and draw up strict regulations on recycling post-consumer clothing, so as to establish a sound and well-managed recycling system; to encourage recycling of post-consumer polyester clothing, especially through chemical approach, by promoting related technologies and practices. Others suggested learning from the successful mode of circular economy of the iron and steel industry.

The 12th Five-Year Plan for Chemical Fiber Industry has laid some guidelines for clothing recycling, including “absorbing foreign advanced technology through transfer” and “recreating clothing-based polyester recycling facility and technique by introducing existing ones from other countries”. Under this light, the tough out layer of the re-PSF cake may become tender in the next few years. With the development of concerned policies and the upgrading of the industry, foreign-based enterprises may be able to enjoy a share in China’s recycled polyester fiber market.

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