

Demand for polyester film soars

The applications of BOPET films have grown not only in volume but also in quality and complexity. As film producers ramp up supply as quickly as they can, they find that investments in new technologies to keep up with the times are just as critical



“We will see a crunch in the BOPET film market over the next one year”, warned Rohit Vashistha, managing director of Polyplex Thailand.

“The situation is quite severe at this stage,” he said this during the *Plastics in Packaging* conference organised by *Asian Plastics News* in August.

Polyplex is the world’s third largest producer of polyester thin film, reaching an output of 151,000 metric tonnes this year. The company currently runs 7 film lines across its three manufacturing locations, including India, Thailand and Turkey, and a new line is being considered for the Thailand plant.

Vashistha said the closure of some old uneconomical lines is a main contributing factor to the shortfall in global BOPET supply. In addition, new applications such as film for LCD panels and other types of electronics equipment are compounding the problem.

“There is a diversion of capacity from packaging to the industrial segment, as well as the conversion of thin film lines into intermediate and thick films for new applications,” he said.

In some cases, his customers plan to replace BOPET with BOPP film but in reality, the overlap is small. Also, the price of PET has been increasing, further adding to the price pressure on BOPET film.

According to UK firm PCI Films Consulting, the global demand for BOPET film has grown an average of 7.2% per annum to reach an estimated 2.4 million tonnes in 2009. Flexible packaging applications for PET film now account for 51% of world demand and BOPET film producers have invested in new capacity to keep pace with the growth.

Growth in Asia

Asia is one of the largest growth markets. North Asia, in particular South Korea, Japan and China, are the world’s largest producers and consumers of BOPET films, accounting

for about half of the world’s demand. Meanwhile, capacity expansions are being announced and PCI predicts the industry will grow another 38% over the next five years. Chinese producers will account for one third of the expected increases while Asia, as a whole, will account for 80% of global growth.

South Korean conglomerate Hyosung has recently ordered a complete simultaneous line for the production of industrial and optical BOPET film, announced machinery supplier Brückner Maschinenbau.

South Korea has one of the most dynamic electrical and electronics markets in the world today and is also home to E&E giants like Samsung and LG.

“It is Hyosung’s declared goal to conquer the booming but challenging market for industrial and optical BOPET film with superior quality,” said Brückner’s Karlheinz Weinmann.

Without specifying the model or specifications, Brückner would only reveal that the new line uses the non-contact stretching process, which can produce film with even and scratch-free surfaces. It will have the widest range on stretching pattern for simultaneous relaxation in MD and TD orientation and can produce film of thickness over 200µm.

New applications to look out for

Brückner’s Weinmann said in western Europe, the US, Japan, Taiwan and South Korea, film manufacturers are increasingly turning their attention to specialty films, thus upping the demand for flexible special lines.

Brückner expects the growth of stretched films to continue at a faster pace, and not just for the packaging industry. Demand comes from high-tech products such as for photovoltaic applications for solar

panels (thickness up to 250 µm) and LCD sets (thickness up to 400 µm).

To meet the new-age challenges, Brückner will unveil new film lines with improved features at the upcoming K show. Producers will appreciate lines that profile the melt so that required optical properties can be achieved as well as smooth and gentle film handling during orientation and winding to avoid mechanical surface faults and subsequent stability.

Besides machinery improvements, Brückner is also researching on separator films for batteries of electric vehicles to be external to other kinds of mobile devices.

Film producers like Polyplex are also carrying out their own R&D on ways to improve their business. Polyplex’s Vashistha said that his company is tackling optical and photovoltaic films. For eco-solutions, the company aims to incorporate up to 20% plant-based materials into their product.

High-tech applications aside, Vashistha said that packaging remains an important segment for polyester films. In developing countries, up to 50% of food is wasted along the supply chain due to lack of packaging, poor packaging or simply bad handling; this is compared to just 3% loss in the developed world. The room for improvement in this “simple” application is substantial.

