Songwon extends reach to global markets

The year 2010 was an exciting one for additives supplier Songwon. The Ulsan-based company announced it would acquire a share of Chinese firm Tangshan Baifu Chemical, one of the world's single largest producer of thioesters and it would take on a majority stake in Indian polymer stabiliser maker HPL Additives. Back in home country South Korea, Songwon is in the midst of expanding the anti-oxidant capacity at its Maeam facility where an additional 15,000 tonnes will come on stream this August.

This year, Songwon expects to make a significant investment in the Middle East. "We are looking at all opportunities to grow, definitely polymer stabilisers business is one market," said Maurizio Butti, Songwon International AG's CEO (pictured).

"It will probably be a new plant," Butti told *APN*. "We are actively looking into this and hope to make an announcement in the next couple of months."

Songwon has shortlisted three possible locations in the Middle East for the latest investment, namely Saudi Arabia, Qatar and Abu Dhabi. As a result of special climatic conditions and trends in this part of

the world, Butti expects a high demand for Songwon's One-Pack System blends, which are customised formulae containing a combination of additives, sometimes in different physical forms.

Songwon has come a long way since its beginnings as a producer of PVC stabilisers back in 1965. More distribution agents were added over the years to sell outside South Korea and by 2005, 20% to 30% of output is exported. Today, that proportion is inversed – about 70% of Songwon's business comes from international markets. Butti said year-end estimates of sales revenue for 2010 was around US$500 million, which is more than double that of sales just five years ago (US$230 million).

Songwon sets its sights on growing even larger. "If we want to serve the big polymer producers, we must have the capacity to meet the demand," he explained.

Besides beefing up capacity, back integration is another crucial element of Songwon's strategy, thus the acquisition of Tangshan Baifu and isobutylene production in Maeam. Producing its own intermediates and raw materials provides economies of scale as well as protect Songwon from supply issues and price fluctuations.

Chemservice Asia, Songwon's joint venture with Chemservice that provides regulatory affairs consultancy, is growing relatively fast, Butti said. "Where it comes to regulations like REACH, many Asian companies are pretty lost and lack understanding, and they need professional help," he added. "There is really a big turnaround in the region in terms of regulatory affairs and we see a potential."

While Asian companies are moving in line with US and European legislation, eg REACH, Asia is also coming up with its own set of regulations. Chemservice sees more customers from other parts of the world wanting to register in Asia.

Demand for biocomposites

Timber is one of Malaysia's major exports, totally around RM20 billion (US$6.5 billion) in 2009. The largest components come from wooden furniture (32%) and plywood (26%), said Dr Jalaluddin Harun, director-general of the Malaysian Timber Industry Board (MTIB). This means that nearly 60% of exports are from so-called commodity products that had undergone little or no processing.

By the year 2020, Dr Jalaluddin hopes to increase the proportion of exports from value-added products to 60% and exports revenue to hit RM53 billion (US$17 billion) – that translates to an rise of 6.4% annually. These are targets the MTIB set under its national timber industry policy or NATIP.

One of the ways to increase the value of finished products is to develop new materials for biocomposites. Wood composite mouldings or extruded products contribute just 9% to the overall exports and Dr Jalaluddin wants to see this value double at least, by 2020.

"PVC is on its way out, especially in developed countries," he explained, "and timber is safe and eco-friendly." Wood composites can be used for buildings – for structural use like roofs to fixtures inside the house like kitchen cabinets. They can also be used for automotive parts and furniture.

Appealing to the senses

TPE specialist Kraiburg unveiled a new range of thermoplastics elastomers at the K fair that are soft to the touch and smells good too. The new ready-to-use masterbatch may be added in concentrations of between 3% and 10%. For now, the Thermolast K range is available in three flavours: peppermint, vanilla and apple.

Kraiburg believes that blending aroma with the soft touch associated with TPE products opens up new marketing options, especially for consumer products. Thermolast K is already commercialised in a line of toothbrushes as well as feminine razors. Other possible applications include cosmetics, household goods, packaging or even equipment for the auto industry.

Quizzed during the K fair, Michael Pollman, Kraiburg's sales director for Europe, would not say how long the smell will last, except that it will sustain for the length of use for hygiene applications.

Kraiburg focuses its business on four main areas, these are automotive, industrial, consumer and medical goods. Also on show at K was the Hipex line of high-performance TPEs for automotives. Incorporating EVM, TPE parts can withstand long-term use up to 175°C and exhibit optimum compression even at high temperatures. They are also resistant to a wide range of

fluids, including oils and greases.

This product has been in the market for two years and Pollman predicts a "very positive future" for it. The company will be presenting a second-generation product that shows better tensile strength. Hipex has been approved for a dampening unit by carmaker BMW for the MINI brand.

Meanwhile, Kraiburg will continue to expand its international networks, said CEO Franz Hinterecker.

"In five or ten years' time, we imagine expanding production into South America, such as Brazil, or China and India," he said.

"We will be doubling our capacity in Malaysia," Hinterecker added, "from the present 3,500 tonnes to 7,000 tonnes."

In its three plants in the US, Germany and Malaysia, Kraiburg TPE has more than 10 extruders producing an annual capacity of over 30,000 tonnes.

Milliken's Hyperform Nucleation technology improves PE performance

In the face of a more challenging economy, business owners want more for less. Milliken Chemical says its PE nucleation agent HPN-20E can bring benefits across the PE industry, from processors to packagers and finally, on to consumers.

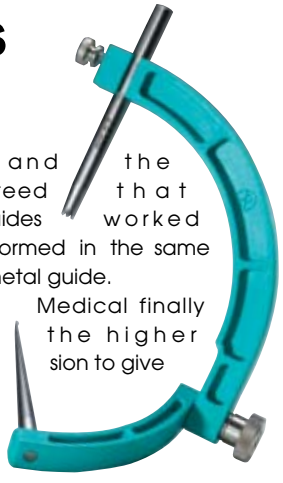
The use of Hyperform HPN-20E enables higher peak crystallisation temperatures, which translates to shorter cycle times and improved productivity of 10% to 20%, depending on the processing methods and resin design. Since parts can be demoulded more quickly during injection moulding and extrusion blow moulding, and output can be raised in blown film, converters and moulders can gain from lower systems running cost.

A change in crystal orientation of the nucleated polymer helps to improve barrier properties in HDPE blown film and extrusion blow moulded applications by 20% to 40%. The shelf life of perishable content like dry foods, dairy products, vitamins and nutraceuticals can thus be extended. This also means that brand owners have greater flexibility to decide whether to increase the shelf life of products using film of existing thickness or to use a thinner-gauge film to maintain the current shelf life.

Improved barrier performance also helps to cut costs by reducing evaporation. By changing to nucleated PE, personal care product manufacturers would no longer need to overfill bottles and containers to compensate for volume loss due to the permeation of water vapour, nor would they need to add additional fragrances to ensure a long-lasting presence.

Hyperform HPN-20E can be used for HDPE blown film, extrusion blow moulding and injection moulding, as well as in linear low density PE (LLDPE), especially C4 gas phase LLDPE. It is available in pure powder additive form or through a masterbatch solution.

Designing a surgical part as strong as steel



Wright Medical Technology is a Tennessee, US-based orthopaedic medical device company that designs, manufactures and markets reconstructive joint devices and biologics. In addition to joint implants, it also makes the Pro-Dense bone-grafting paste which is used to regenerate bone tissue. For this, its engineers wanted to offer surgeons and hospitals a set of disposable and pre-sterilised surgical tools for ankle procedures, including a retrograde drill guide for the ankle.

This would be the first time a drill guide is made in a disposable plastic form. Not only does the device have to be very stiff and dimensionally accurate to meet the tight requirements of such a delicate surgery, the part has to be manufactured at a suitable price for disposables.

With these factors in mind, custom compounder RTP recommended two possibilities from the RTP 300 Series glass-fibre reinforced polycarbonate compounds, which are also ISO 10993 compliant to meet biocompatibility requirements. Prototypes were first tested in a cadaver laboratory and the that worked well and performed in the same manner as a metal guide.

Wright Medical finally decided on the higher loaded version to give surgeons an extra measure of stiffness.

Ryan Belaney, Wright Medical's Product Development Engineer welcomed the news of a comfortably priced device. "We found that we would be able to manufacture plastic drill guides for less than half the cost of a metal version, handily meeting our desired price point for disposables," he said.

An added bonus from using RTP's material was that pre-colouring the compound gave Wright Medical the ability to brand the device in its custom teal colour to make it visually outstanding in the marketplace.

Edgetek gives E&E industry new edge in materials

At the K show, PolyOne introduced Edgetek AM, a halogen-free flame retardant (HFFR) high-temperature polyamide. This is the US-based company's latest addition to its range of halogen-free, flame retardant specialty engineered materials for the electrical and electronics industries.

Frank Tomaselli, general manager for PolyOne Engineered Materials Europe, said, "In the electrical and electronics market, applications continue to get smaller and thinner. To improve component performance and manufacturing efficiency, there is an increasing demand for materials that can bridge the cost-performance gap between traditional engineered thermoplastics, such as PA66 or PBT, and higher-priced performance polymers, such as PPS, PSU, PES, PEI, LCP and PEEK."

Edgetek AM is well-suited for low voltage applications such as high power circuit breakers, switch disconnectors, switch gears, connectors, relays, micro-components and sensors. These polyamide compounds have lower specific gravity and are less corrosive than existing halogenated flame-retardant options, leading to longer tool life.

PolyOne adds that the new compounds are ideal for moulding thin-walled parts in multi-cavity tools.

Edgetek AM has good dimensional stability and creep resistance at elevated temperatures, with a heat deflection temperature (HDT) greater than 260°C.

Edgetek AM was first made commercially available in Europe in both standard and custom grades, and will be available in North America and Asia this year.