

Recycled polyester in spotlight at Taiwan show

This year's Taipei Innovative Textile Application Show (TITAS) attracted an estimated 40,000 visitors to see the latest in sustainability and textile innovation from around 400 fabric suppliers. **Tommy Lee** reports from Taiwan.

Taiwan's recent growth in the textiles and apparel sector was highlighted by vice president of the Taiwan Textile Federation Wu Den-Yih at the TITAS 2015 welcome dinner. The country has struggled to compete with China over the past 15 years but is said to be making something of a come-back. "Taiwan's textile industry is in a positive economic direction – social stability and innovation contribute greatly to this improvement.

"Last year for example, the value [of Taiwan's textile market] reached US\$8.13 billion, employing over 14 million people, which is a growth rate of 16 per cent since 2000."

Excess demand for good quality recycled polyester yarns from Taiwan's mills is helping to maintain price premiums according to Indian polyester

manufacturer, Polygenta, who confirmed to *Ecotextile News* ambitious plans to double its production capacity over the next 12 months. Exhibiting at TITAS, the company said it will bump-up production to 20,000 tons a year at its Mumbai site.

Polygenta's recycled filament yarn range, which includes its 'Perpetual' 100 per cent post-consumer PET waste high performance yarns on display at the exhibition, has a reported denier range of 50 – 600 for applications in sports apparel, outdoor-wear and the automotive sector, and is certified by the Global Recycling Standard (GRS), Oeko-Tex, and ISO standards.

Speaking to *Ecotextile News*, Marc Lopresto, executive chairman of Polygenta, said: "At the present time, the demand for high quality sustainable polyester yarns far outstrips the supply

and this is helping to maintain the price. Polygenta is experiencing growing demand for recycled polyester yarns in terms of both volume and application.

"Interestingly, customers are now increasingly demanding 100 per cent recycled yarns made from 100 per cent post-consumer PET waste rather than just industrial factory waste or a blend of recycled inputs. The ability to show transparently the entire manufacturing chain, including sourcing and production, has given comfort to customers and consumers that certain recycled yarns are truly sustainable and there has been no greenwashing."

In further recycled PET developments at TITAS, Taiwanese polyester manufacturer Far Eastern New Century (FENC) told *Ecotextile News* that its 'TopGreen' recycled PET fibre from plastic



bottles and CO₂-based waterless dyeing process is helping the company achieve its goal of having a “fully sustainable” production process.

FENC said its TopGreen fibre, used in the football World Cup for Nike jerseys in 2010 and 2014, is also derived from post-consumer bottles and is being applied ‘increasingly’ in knitted and woven fabrics for the outdoor, sports and underwear sectors.

Speaking to *Ecotextile News* at the show, Eric Hu, head of textile applications at FENC, said the company is also working towards overcoming water consumption and energy usage barriers when dyeing its fabrics.

“We have developed a water-free supercritical CO₂-based dyeing process, which injects dyestuffs directly into fabrics in a high temperature process cycle. No waste water is generated and overall the process uses less energy and chemicals needed for coloration.

“We have also improved our traditional dyeing processes by reducing



Recycled PET from India

water consumption by 30 per cent, and we eventually hope to achieve zero wastewater in our production.”

Elsewhere, FENC said it was using TITAS to launch a new smart textiles line, with “electrically conductive membranes” woven into garments for physiological detection of functions such as heart rate monitoring.

German functional textiles business Sympatex Technologies showcased its

latest developments in recycled laminates from post-consumer bottle waste for use in the company’s membrane production at the event. The process, which uses material made from recycled PET and regular polyester, is said to be PTFE (polytetrafluoroethylene) and PFC (fluorocarbon) free.

Hervé Clerbout, director of workwear at Sympatex, said: “In combination with our 100 per cent waterproof and windproof Sympatex membrane, the recycled PES outer layers offer an even better performance. They are ideal for the demanding weather protection sector, and are on the same level as newly-produced polyester materials.

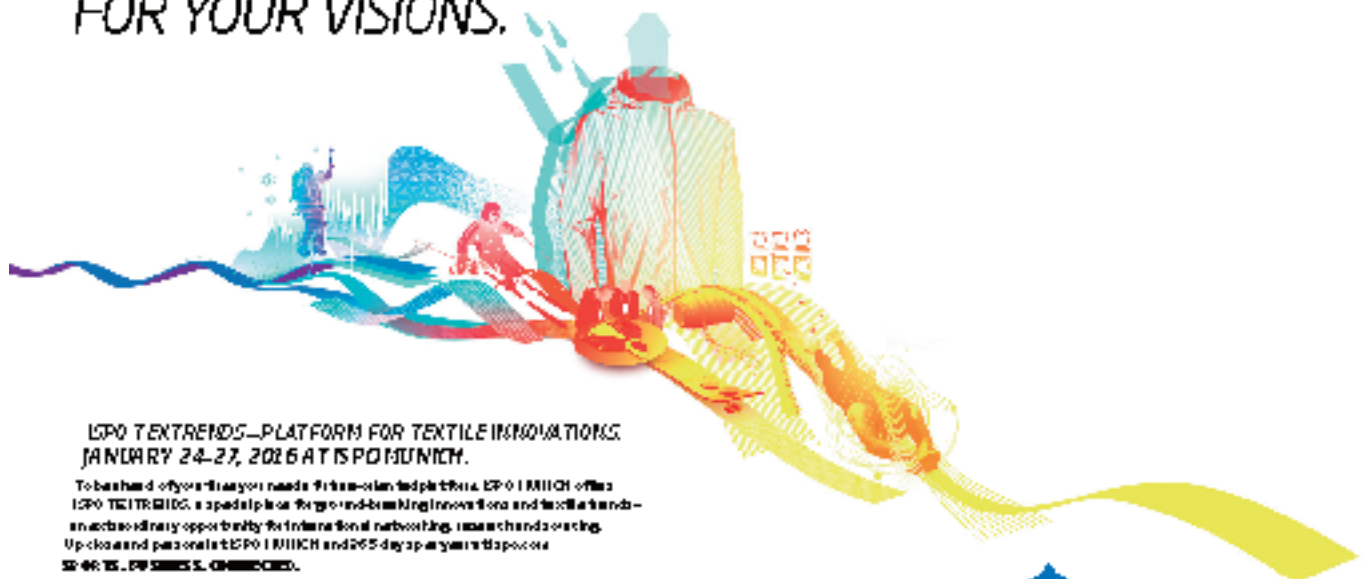
“These products are also completely produced within the EU with an optimised carbon footprint,” he added.

Sympatex, whose PFC and PFTE-free membrane production is bluesign certified, says it recently joined the Sustainable Apparel Coalition to help drive environmental responsibility “right across its supply chain.” ■



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