RISE TO THE CHALLENGE: NILIT/LINCSPUN

A new yarn called Trinomax AQ is the fruit of a relationship that two manufacturers in different parts of the world struck up at an industry event two years ago. They say the difference Trinomax AQ will make to the sports apparel market will be "revolutionary".

A twist in the tale

Israeli yarn manufacturer Nilit and an Australian partner company, LincSpun, have combined to launch Trinomax AQ, which they have described as "a revolutionary yarn" that combines merino wool with Nilit Aquarius yarn to create garments that can thermoregulate the wearer's body temperature.

Designed to make strong, durable and lightweight fabrics for activewear, dancewear, socks and sportswear, the companies say Trinomax AQ can help athletes reach peak performance.

Trinomax AQ is made from three components: natural merino wool, textured Nilit nylon 6.6 and Nilit Aquarius. Twisted together, using a technology proprietary to LincSpun, the combination of fibres gives Trinomax AQ a range of extra functionalities. The Nilit nylon 6.6 textured filament provides consistent quality and durability. Nilit Aquarius is engineered with a special additive inside the polymer and a triple-T cross section of the filaments (which increases surface area) for high-speed wicking that is intrinsic to the fibre and will not wear off even after repeated washing. Merino wool is often found in premium athletic clothing for its softness and because of its ability to regulate body temperature. Together, the fibres also provide a high level of moisture management.

On announcing the new product, LincSpun director Jean-Michel Libeau commented: "We chose to make Trinomax AQ out of Nilit nylon 6.6 yarns because of their high quality. With its natural softness and technologically advanced moisture management properties, we are confident Trinomax AQ will greatly enhance our

A dress made from fabric knitted from Trinomax AQ yarn. The same fabric can be used in sports applications such as T-shirts.

LincSpun

offering of advanced yarns for sportswear, activewear and socks."

Alon Weiser, research and development and technical service manager at Nilit, said: "LincSpun's unique technology enables the engineering of exceptional yarns, like Trinomax AQ, which offer the attributes consumers are looking for in clothing: comfort, durability, light weight and softness. The brilliant combination of merino wool with Nilit Aquarius yarn creates the ultimate fabrics for athletes."

These are considerable claims. Mr Weiser explains that the combination of merino wool with his company's fibres to add high levels of moisture management and wicking to the qualities of the natural fibre is new and "untypical" in the market. "Merino has optimum qualities such as high absorption and a soft handle," he says. "But adding a functional polyamide 6.6 fibre to it gives improved moisture management, body warming qualities and the highest absorption and wicking rate, leading to end products with high comfort levels."

In addition, he says the combination makes for finished garments that have greater pilling resistance and, therefore, more durability. Garments are easier to care for, too, he adds, because "the nylon protects the wool" in the mix, opening up a variety of washing capabilities. Another interesting characteristic is that, because the fibres from LincSpun and Nilit absorb dyes at different rates, a garment manufacturer using fabric knitted from Trinomax AQ can achieve interesting melange dyed effects using just one colour.

The technique LincSpun employs is to add the two Nilit yarns to merino before the process to spin the merino yarn is complete, twisting them together to make a new fibre, Trinomax AQ. It's patented technology, explains Jean-Michel Libeau. "It enables us to engineer a yarn for a specific end-application, as desired or required by garment manufacturers or customers such as sports brands." He says Trinomax AQ yarn is a great example of what the technology can do. "It's 40% merino wool, which is nature's most sustainable and best engineered fibre," he continues, "and 60% specially engineered nylon filaments from Nilit to enhance the performance of the merino to meet today's demanding performance standards for sports apparel." Mr Libeau also points out that the merino used in Trinomax AQ does not have to be chlorine treated, and is stabilised by the filaments added during the spinning process. "The process enables merino to be used for garments that once were made of 100% synthetic fibres and broadens the application of merino, a sustainable resource," he concludes. "The reaction of the sports apparel sector has been great; we currently have apparel developments for adidas, Nike and other brands. We have also had a great response from many sock brands and manufacturers. The partnership with Nilit has been great and I would like to thank them publicly for their continued support and market exposure, helping to put Trinomax AQ on the world stage."



Interesting colour effects are possible because the merino wool fibres absorb dye at a faster rate than the nylon 6.6 and Aquarius yarns from Nilit.

LincSpun

The companies first got talking about the possibility of combining their respective yarns a few years ago at an industry exhibition. They agreed the concept was interesting and moved ahead with development. Nilit's marketing and communications manager, Amy Holzer, says the "excellent co-operation" between the two companies involves joint promotion initiatives for Trinomax AQ, including, already, hang-tags for finished products.



Trinomax AQ yarns are 40% merino wool and 60% Nilit yarns. The idea that Nilit has worked on with LincSpun opens up merino applications that were once the preserve of synthetics.

LincSpun

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