

FOOTWEAR TECHNOLOGY: ALLBIRDS AND LENZING



Tencel helps Allbirds to branch out

Austrian fibre group Lenzing has been doing a lot of work behind the scenes since its Tencel lyocell fibre made its debut in footwear in 2015.

At the time, the company said a number of shoe companies had approached it to discuss incorporating Tencel into their products, with Austrian brand Legero signed up as its first footwear partner. From the start of this year, it extended its efforts to demonstrate the fibre's potential in shoes by exhibiting at focused exhibitions such as Lineapelle in Milan and APLF in Hong Kong.

Dr. Marina Crnoja-Cosic, head of business management for industrial applications at Lenzing, tells WSA that it has been working hard with component and material suppliers to the footwear industry to develop Tencel for a range of uses. It now believes it can be used in upper materials, linings, non-woven insoles, laces, and even shoe outsoles, where it can be used in

powder form. "The more shoe components that are made of Tencel fibres, the closer we get to the vision of a biodegradable shoe," she says.

San-Francisco-based wool footwear brand Allbirds is clearly impressed with Lenzing's progress. This March, it stepped away from wool for the first time, with Tencel its material of choice for its new Tree collection. Although the brand was unable to share the exact composition of the proprietary blend it created with Lenzing, it describes it as its "most sustainable material to-date".

Cool solution

So, why has Allbirds chosen now to branch out from its traditional material base? The rising price of wool in recent years might have contributed to the decision, but co-CEO Tim Brown has insisted the idea of using a plant-based fibre has been in the works for a number of years, even prior to the launch of

Footwear brand Allbirds' signature 'Runner' shoe is one of two to feature in its Tree collection, made from plant-based Tencel fibre.



the Wool Runner in 2016.

The brand states: “We understand there are situations where merino wool may not create the most comfortable experience; while it works well in most climates, some may find it a bit hot in the midst of an Australian summer heat wave”.

It is here that the natural moisture wicking properties and breathability of Tencel come in handy. When combined with a 3D-knitting process and a smooth mesh construction, Allbirds says the result is a “soft, light and breezy feel”. The construction also serves to offer the wearer added support, while a wool-lined insole and heel cup help ensure a comfortable fit.

Dr Crnoja-Cosic reveals the companies first crossed paths during the brand’s search for a new sustainable material to put into its shoes. The starting point was for Mr Zwillingner to visit Lenzing’s Tencel production facility in Austria, where he was able to get an idea of the fibre’s properties, production capacity and environmental footprint.

The Tree collection includes Allbirds’ signature Runner shoe, as well as a new style, the Skipper, which it describes as “a modern take on the 1930s classic boat shoe”. It says it developed more than 35 prototypes of this product before settling on the final design. Both models are available for men and for women and are assembled in China.

Allbirds has focused much of its marketing for this new range on the fact that the material used is derived from eucalyptus tree pulp. Birgit Schnetzlinger, Lenzing’s business manager for footwear, confirmed that the majority of the pulp used to create Tencel fibres



The Tree collection marks the first time Allbirds has moved away from its favoured material, wool. It includes a new style, the ‘Skipper’.



comes from eucalyptus trees. Other sustainable wood sources, such as spruce, pine, birch and beech, are also used. Allbirds has said the Tencel fibre it uses is sourced from sustainably managed semi-natural forests in South Africa where chemical fertilisers and artificial irrigation systems are not used.

“The introduction of our revolutionary Tree collection marks a major moment for Allbirds in our quest for a more comfortable and

Allbirds has said the natural moisture wicking properties and breathability of Tencel, as well as its sustainability qualities, are what attracted the brand to the material.



Meteoric rise

When Allbirds released its Wool Runner shoes in March 2016, it received a ringing endorsement from *Time*, which dubbed them “the world’s most comfortable shoes”. In the years since, the startup brand has evolved into the footwear of choice for those working in California’s Silicon Valley, an area known for its abundance of high-tech startups and venture capital companies.

The man behind the brand is former New Zealand international soccer player Tim Brown. In 2014, he launched a crowdfunding campaign to gauge consumer interest in wool sneakers. Needless to say, there was definitely a demand. It was overwhelming, with the project’s Kickstarter page raising more than \$100,000 in just five days.

After hitting its maximum pledge target, Mr Brown opted to end the campaign early in order to avoid overstretching his business at such an early stage in its development. Unsure what to do next, a family connection led him to Joey Zwillinger, an engineer specialising in renewable materials. Together they developed a merino wool fabric specifically with footwear in mind. The Wool Runner was the first shoe they released.

Following the success of this model, Allbirds launched the Wool Lounger. Both products have a very simple design, with the brand choosing to instead focus its attention on comfort and sustainability. It sells a range of wool shoes in children’s sizes, marketing them under the rather clever Smallbirds brand name. All are made using a superfine New Zealand merino wool developed by its mill partner in Italy. They are manufactured in South Korea. Although wool is the primary material Allbirds uses, it also incorporates laces derived from recycled plastic bottles and uses a castor bean oil-laced polyurethane for the insoles.



Tim Brown (left) and Joey Zwillinger joined forces to launch Allbirds. They now share the duties of chief executive.

Cody Pickens

sustainable future,” co-founders, Mr Brown and Mr Zwillinger, have said. “This material doesn’t compromise comfort or the environment, and we’re excited to challenge industry norms via material innovation once again.”

Sky’s the limit

Alongside the launch of the Tree collection, Allbirds also revealed it had sold one million pairs of shoes since it was established in 2016. It has also provided more than 45,000 pairs to people in need through its work with non-profit organisation Soles4Souls. This has seen it find a home for lightly used Allbirds products. The brand has worked hard to reduce its environmental impact by using 90% post-consumer recycled cardboard in its packaging. Its sales to date have helped save the equivalent of 15,000 trees, it says.

The next step for Allbirds is to expand its retail network. It operates two physical stores in the US, in San Francisco and in New York, as well as running online operations in New Zealand and Australia and a number of pop-up outlets. In April, it launched its online business in Canada. Allbirds will also open

pop-up shops in Nordstrom department stores in Toronto and Canada.

“We are looking forward to introducing Canadians to Allbirds, particularly as Canadians have a fundamental understanding about the importance of protecting our environment,” Mr Brown has said. He has suggested expansion to the UK and Asia is next on the agenda.

In terms of its partnership with Lenzing, the brand has said it sees “large potential” for Tencel to become a key part of its portfolio, describing it as a “versatile material”. It hopes to deepen its relationship with Lenzing in order to learn from the group’s knowledge of advanced sustainable material development.

For her part, Dr Crnoja-Cosic emphasises that the benefits of Tencel extend beyond its sustainable qualities, with its moisture management and cooling properties making it especially attractive to shoe brands. She revealed Lenzing is in discussions with a number of them to produce co-branded products as it seeks to increase the brand exposure of Tencel and to boost its recognition on a consumer level.