

Driving leather innovation

On a recent visit to its main production site at Dongen in the Netherlands, World Leather had the opportunity to look behind the scenes at Ecco Leather and see why the company is a driving force of leather innovation.

The Ecco Leather tannery in Dongen is everything you would expect from a modern-day leather manufacturing facility. Processing of raw hides, for which the site has a weekly capacity of 450 tonnes, to make wet blue or chrome-free leather takes place in 12 wooden liming drums and 12 polypropylene tanning drums from Swiss group Hüni.

Of the raw material, all of which comes from Europe, 80% is brought in fresh, an early step to avoid waste and the wastewater treatment issues associated with salting. For the salted stock that is used, the initial soak waters are cleaned, before the purified salt water is disposed of at sea. Wastewater treatment was previously managed by an external business but, in the pursuit of more careful control, Ecco took that business over in 2018.

For the liming part of its own leather production operation, it employs a hair-save process. When it comes to chrome-tanned materials, Ecco Leather now makes all its own products using the DriTan tanning technology that it unveiled in September last year. The group, which also has tanneries in Thailand, China and Indonesia, has said it will expand its

use of DriTan to its global production, but has pointed out that it will take some time for brand customers to approve process changes. In the meantime, it is making preparations to roll out the technology out to its other leather manufacturing sites, while continuing to monitor the results so far.

Thomas Gøgsig, Ecco's head of applied research, says DriTan is one of many innovations the company is working on. It has been developing this technology for the past five years. Asked if it plans to share it with the wider industry, he explains that while the methodology is proprietary, as a major player in the tanning industry Ecco has a responsibility to think beyond itself. It is in discussions about what form sharing would take and how the technology could be of benefit to the overall industry, although Mr Gøgsig says this is not a straightforward decision for the company.

One of the main reasons for Ecco Leather's switch to DriTan is that the new technology allows it to reduce the amount of water used in the tanning process. Its focus is not on making small reductions. It wants to substantially reduce





Conventional chrome tanning.



DriTan Chrome tanning.

the amount of water required.

Comparing the unloaded material from its DriTan production with that processed using conventional methods, it is clear that the amount of processing water required for the latter method is much greater. All other aspects of the leather appear to be the same.

The waste streams from liming and tanning operations are kept separate, as are the waste streams from individual tanning stages. This means they can be sent to the wastewater treatment plant without cross-contamination. From the wet blue stage, hides are graded and trimmed.

Retannage, dyeing and fatliquoring are then carried out before the leather is dried and finished.

In-house innovation

Ecco's in-house design team—a multinational group comprising people from India, France, Germany, Denmark, the Netherlands and Eastern Europe—looks to stimulate innovation however it can, whether that be by collaborating with high-end fashion designers or by brainstorming and pushing forward what they refer to as “sparkle ideas”.

Christine Mukakasa, head of the design studio, says



Window on the world at W21

Ecco operates its own footwear concept store in the centre of Amsterdam. Known as W21, a reference to its address (Wolvenstraat, 21), the spirit of innovation is very much present there as well. One wall of the store features a floor-to-ceiling screen, which displays short videos showing how leathers are made and tested at the tannery in Dongen, 100 kilometres to the south. It serves as a tool to educate the customer base.





innovation concepts can come from anywhere but that to bring them to fruition, it is essential to work with the business's technical side. This is especially the case when it comes to sustainability. Having worked with Dutch chemicals group DSM Dyneema on a bonded leather material, Ecco is now exploring combinations with other materials such as canvas and wool. It envisages a future in which it may be possible to fuse three, four or five materials to create a totally new product.

A main focus of the design team at present is the Open Circle Lab, a physical development facility that brings together designers and brands to inspire its tanning technicians to develop innovative new leathers. By working closely with fashion designers on both new and existing leathers, and then having them incorporated into catwalk collections, Ecco has found a shrewd way of putting its products front and centre.

It operates an annual workshop, which it refers to as the Hot-Shop, as part of the Open Circle Lab. It took place for the twelfth time this year, bringing together around 150 people, ranging from fashion designers to sneaker manufacturers, and from hairdressers to DJs. The idea is to connect creative energy.

The company's CEO, Panos Mytaros, tells *World Leather* that around two-thirds of the people who take part in the Hot-Shop are not familiar with Ecco and may have very little to do with the leather industry. The format, which sees small groups work together for short periods of time, has been successful, in part because there are no fixed expectations in terms of end results. Mr Mytaros is proud of the concepts that have resulted from this programme. "Things that we did in Hot-Shop 5 are trends now and a lot of the ideas from the Hot-Shop have gone into production in some form," he says.

Expect the unexpected

Mr Mytaros walks the corridors of the buildings, staying in contact with production staff and participating in Open Circle Lab meetings. Asked what makes Ecco Leather different to other tanning groups, he says the company encourages people to dream or, as he puts it to "do something different and unexpected". Learning lessons from failure is valued more than instant success, which fits in with Ecco's long-term philosophy.

"You can't create or influence a culture if you're not a part of it," he says in reference to Ecco's work with technology group Apple. He believes collaborations like this make his company better. Organisations such as Apple and its tech rivals had been reluctant to use leather widely in their products, he says, feeling that it would be difficult to find enough manufacturers who could meet their standards. Their decision to use leather is certainly not because it is cheaper than alternative materials. Instead, they have seen the inherent value in the material and the emotional attachment that it can provoke as it changes and improves with age.

Apple announced earlier this year that a number of its suppliers, including Ecco, have committed to only using clean energy in their production. Mr Mytaros says Ecco Leather's Dongen site is "energy neutral", with its waste stream suitable for use as biogas or biodiesel. Its other sites, specifically the one in China, have received major investments to enable them to install solar panels and move closer to an energy-neutral position. ☀

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