Lenzing unveils pioneering TENCEL™ Modal fiber with Indigo Color technology to help elevate sustainability in the denim industry

- TENCEL™ branded modal fiber with Indigo Color technology uses a one-step spun-dyeing process to deliver indigo color whilst using substantially fewer resources.
- TENCEL™ Modal fibers with Indigo Color technology are awarded with the EU Ecolabel for meeting high environmental standards.

The Lenzing Group is enhancing sustainable offerings for the denim industry with TENCEL™ branded modal fibers with Indigo Color technology. The pioneering Indigo Color technology behind this new market offering incorporates indigo pigment directly into TENCEL™ branded modal fibers using a one-step spun-dyeing process. This delivers superior color fastness relative to conventional indigo dyeing whilst using substantially fewer resources. This innovative offering is awarded with the EU Ecolabel[1], a label of environmental excellence awarded to products meeting high environmental standards throughout their life cycle[2].

Development of Indigo Color technology to enhance denim sustainability

The denim industry's demand for eco-responsible alternatives is growing rapidly, as brands and supply chain partners seek greater sustainability. Lenzing has been working closely with such partners to counteract environmentally harmful denim production processes via the botanic origin of its raw materials and responsible production processes.

Denim remains an important market for Lenzing, and the introduction of TENCEL™ Modal with Indigo Color technology is designed to help reduce the ecological footprint of denim fabrics and garments. Produced in Austria, predominantly from beech wood derived from sustainably managed wood sources, this new offering has been designated BioPreferred® by the United States Department of Agriculture (USDA).

"Innovation is at the core of what we do, from sustainable fiber sourcing through industry leading features and production processes, with the ever-present goal of safeguarding our environment," says Florian Heubrandner, Vice President Global Textiles Business at Lenzing AG. "By upending traditional manufacturing processes and implementing our pioneering technology along with renewable and eco-responsible materials, TENCEL™ Modal

[1] Please note that LENZING™ fibers are certified with the EU Ecolabel Standard for textile products. Single use end products are NOT included in this Standard. Single use end products made of LENZING™ fibers can only be labelled or marketed as EU Ecolabel certified if they are certified as compliant with applicable standards, such as the EU Ecolabel Standard for PCPs and AHPs.

[2] http://ec.europa.eu/environment/ecolabel/index_en.htm

with Indigo Color technology sets a new benchmark for indigo application and sustainability in the denim industry."

Among early launch collaborators for TENCEL™ Modal with Indigo Color technology is Adriano Goldschmied, founder of House of Gold, who is widely regarded as the "Godfather of Denim" for his progressive vision in denim development. "The TENCEL™ brand is leading revolutionary change for the denim industry and it has always been one of my go-to eco-fibers for my collections," states Goldschmied. "We are thrilled to collaborate and launch the 'Seed of Joy' concept capsule with woven, circular and sweater knit fabrics using TENCEL™ Modal with Indigo Color technology, in partnership with mills such as Blue Diamond and In The Loop, as well as machinery producer Shima Seiki."

Indigo Color technology elevates production standards and significantly reduces waste

Indigo Color technology builds upon the strong credentials of TENCEL™ Modal fibers with new benefits. Compared to conventional indigo dyeing, the color retention of TENCEL™ Modal with Indigo Color technology is superior through dry and wet crocking and rubbing. Despite resistance to home-laundry fading, wash-down effects for denim products can be achieved using commercial laundry techniques. TENCEL™ Modal fibers with Indigo Color technology are inherently versatile and enable implementation in a range of multi-fiber blends.

Compared to water and energy intensive conventional indigo dyeing, this technology provides indigo coloration with substantial water, chemical and electricity savings, along with less wastewater produced, and no heat energy used. In addition, a specially commissioned indigo pigment from dyestuff manufacturer DyStar®, ensures that TENCEL™ Modal with Indigo Color technology can be certified with STANDARD 100 by OEKO-TEX®, guaranteeing ultra-low levels of aniline. Günther Widler, Head of Technology, Denim of DyStar® says, "This specially commissioned indigo pigment is based on more than a decade of our working experiences on Indigo Synthesis in Germany. Twenty-five years ago, we invented the most eco awarded DyStar® Indigo Vat 40% to meet the demand for sustainable manufacturing and production."

To make the commercial launch of TENCEL™ Modal with Indigo Color technology possible, Lenzing has partnered with leading supply chain partners including denim mills - Candiani and Cone Denim.

"With driving sustainability at our core, we look forward to a fruitful collaboration with the production of this eco-responsible fiber type," says Alberto Candiani, Global Manager of Candiani. "TENCEL™ Modal with Indigo Color Technology also represents a great product to expand denim's performances and aesthetics around sustainability itself."

Steve Maggard, President of Cone Denim, adds, "Lenzing has long been an industry leader in sustainable fibers. With consumers being more eco-conscious, the denim industry has to evolve and innovate in smarter materials

to stay efficient and competitive. We are proud to partner with the TENCEL™ brand to launch Indigo Color technology for modal fibers and promote greater sustainability for denim.”