feels comfy, naturally
TENCEL™ Lyocell fibers from Lenzing make complete sustainable shoe solutions possible. They can be used for every part in the shoe, whether as textile fiber in the upper fabric, lining, insoles and laces / zipper / sewing thread, as nonwoven fiber in insoles or padding, or as TENCEL™ Lyocell powder in outsoles. With shoes made of TENCEL™ Lyocell fibers, a complete sustainable shoe solution becomes reality.

feels right features

botanic origin
TENCEL™ Lyocell fibers are derived from sustainably grown wood sources, harvested from certified and controlled sources following the stringent guidelines of the Lenzing Wood and Pulp Policy. Moreover, wood and pulp used by the Lenzing Group comes from sustainable forestry — semi-natural forests and sustainably managed plantations. TENCEL™ Lyocell fibers have earned United States Department of Agriculture BioPreferred® designation.

enhanced breathability
TENCEL™ Lyocell fibers support body temperature regulating properties through their moisture management. Derived from natural material, the microscopic fibrils of cellulosic fibers are structured to regulate the absorption and release of moisture, contributing to fabric breathability that supports the body’s natural thermal regulation. TENCEL™ Lyocell fibers have a higher vapor uptake than cotton.
Through moisture management, TENCEL™ Lyocell fibers absorb moisture efficiently, as measured by the Vapor Uptake test and Water Retention Value. In comparison to polyester and synthetics, there is less available moisture formed on the surface of the fiber for bacteria to grow. Consequently, TENCEL™ Lyocell fibers provide a less favorable environment for bacterial growth.

**moisture management**

Moisture management is an important criterion for shoes. TENCEL™ Lyocell fibers, especially in the construction of the inner lining, padding and insole, contribute to effective moisture management. Compared to synthetic fibers, the moisture management of TENCEL™ fibers is more efficient. The fibril structure of the fibers supports the body’s natural thermal regulation mechanism and keeps feet feeling cool and dry. Compared to synthetic fibers TENCEL™ Lyocell fibers have an efficient moisture uptake — in some cases an improvement in moisture management of up to 50% was measured with TENCEL™ Lyocell fibers.

**gentle on skin**

TENCEL™ Lyocell fibers are naturally soft to the touch and offer long-lasting comfort. When viewed under an electron microscope, TENCEL™ Lyocell fibers exhibit a smooth surface area, giving fabrics a soft feel and ensuring comfort for sensitive skin.

**sustainable production**

TENCEL™ Lyocell fibers have gained a reputation for their environmentally responsible closed loop production process, which transforms wood pulp into cellulosic fibers with high resource efficiency and low ecological impact. This solvent-spinning process recycles process water and reuses the solvent at a recovery rate of more than 99%. This economically viable manufacturing process received the European Award for the Environment from the European Commission in the category “The Technology Award for Sustainable Development”.

Moreover, all Lenzing fiber production sites operate according to a certified Environmental Management and Occupational Health and Safety system (ISO14001, OHSAS 18001).