feels right, naturally
feels right, naturally
TENCEL™ feels so right

TENCEL™ branded lyocell and modal fibers transform textiles to ensure their suitability to everyday consumer needs.

TENCEL™ branded lyocell and modal fibers help to maintain the environmental balance by being integrated into nature’s cycle:

- The fibers originate from the renewable raw material wood created by photosynthesis.
- The certified bio-based fibers are manufactured in an environmentally-responsible production process.
- The standard fibers are certified as compostable and biodegradable and thus can fully revert back to nature.

TENCEL™ Lyocell fibers

Known for their natural comfort and environmentally responsible closed loop production process, TENCEL™ Lyocell fibers deliver quality, performance, and versatility. Unique physical properties lead to their high tenacity profile, outstanding moisture management, and gentleness to skin.

TENCEL™ Modal fibers

Brilliant in color and luster, TENCEL™ Modal fibers are also known for being exquisitely soft and pleasant to the skin. TENCEL™ Modal fibers exhibit high flexibility, resulting in a naturally soft quality to the textile. Blending TENCEL™ Modal with other fibers significantly improves the property of softness in fabrics, enhancing overall comfort.
from forest to fabric
botanic origin

TENCEL™ Lyocell fibers are derived from sustainable wood sources, harvested from certified and controlled sources following the stringent guidelines of the Lenzing Wood and Pulp Policy.

TENCEL™ Modal fibers are mainly manufactured from the renewable source of raw material beech wood, sourced from sustainable forests in Austria and neighboring countries.
Moreover, wood and pulp used by the Lenzing Group comes from semi-natural forests and sustainably managed plantations. All Lenzing fibers are available with FSC® (C041246) or PEFC™ certification upon request. All Lenzing standard fibers have earned United States Department of Agriculture (USDA) BioPreferred® designation.
TENCEL™ cellulosic fibers of botanic origin define a new standard of sustainability and natural comfort for you.
sustainable production of TENCEL™ Lyocell fibers

TENCEL™ Lyocell fibers have gained the 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” (2000).
environmentally sound
production process of TENCEL™ Modal fibers

Fully integrated pulp and fiber production at the Lenzing site in Austria makes it possible to produce fibers in an eco-responsible way. At Lenzing, we strive to safeguard resources for future generations by the use of renewable energy from the pulp mill and by recovery of remaining components as co-products. Numerous Lenzing innovations have been integrated in the production of TENCEL™ Modal fibers, to make the process environmentally sound.
Long-term goal
Postconsumer waste

REFIBRA™ technology - contribution to circular economy

Cotton value chain

Pre-consumer cotton waste
(Cutting waste from garment making)

TENCEL™ Lyocell fibers with REFIBRA™ technology

Wood

Pulp

REFIBRA™ technology - contribution to circular economy
REFIBRA™ technology for TENCEL™ Lyocell fibers

The pioneering REFIBRA™ technology involves upcycling cotton scraps e.g. from garment production, in addition to wood pulp, where the raw material is transformed to produce new virgin TENCEL™ Lyocell fibers to make fabrics and garments.

Based on the award-winning efficient closed loop production process as standard TENCEL™ Lyocell fiber, REFIBRA™ technology is Lenzing’s first step to contribute to the circular economy in the textile industry.
Micro technology
for TENCEL™ Lyocell and Modal fibers
Among the TENCEL™ Lyocell and Modal fiber portfolio, Micro technology offers even a finer quality of lightness and exquisite softness to cellulosic fibers, producing lightweight fabrics. TENCEL™ Lyocell and Modal fibers are extra fine and light cellulose fibers from sustainable wood sources, offering moisture absorption to ensure natural skin comfort. TENCEL™ Lyocell and Modal fibers pioneer a new dimension of long-lasting natural comfort.
Eco Soft technology for TENCEL™ Modal fibers

TENCEL™ Modal fibers are produced by Eco Soft technology, offering exquisite softness to textiles. The technology uses elemental chlorine-free bleaching in an integrated pulp to fiber process that has high recovery rates of process ingredients and causes very low air emissions. It predominantly uses surplus renewable energy from the pulp mill making this fiber an environmentally responsible choice as proven by the EU Ecolabel.

*Eco Soft O² technology uses totally chlorine-free, oxygen based bleaching in an integrated pulp to fiber process.
technology
Eco Color technology for TENCEL™ Modal fibers

Eco Color technology implements the process of dope dyeing, where color pigments are deeply embedded into TENCEL™ Modal fibers. This eco-responsible technology offers long-lasting color-fastness and design flexibility in fabrics. Dope-dyed TENCEL™ Modal fibers provide efficient ecological advantages, substituting the resource-intensive conventional dyeing process. Water and energy are used sparingly throughout the production process, from fiber to fabric. Compared to conventionally dyed fabrics, up to 50% of energy and water can be saved as well as 60% less carbon footprint, resulting in lower environmental impact.

Fibers produced under Eco Color technology have been certified with the EU Ecolabel, a label of environmental excellence awarded to products meeting high environmental standards throughout their life cycle. Fashion can be enjoyed with a clear conscience.

Dope-dyed TENCEL™ Modal fibers retain long-lasting color vibrancy, including the popular color black, more than conventionally dyed fiber, and are less prone to fade even after repeated washing.
key benefits

biodegradable
Derived from nature, all TENCEL™ standard Lyocell and Modal fiber types are certified as biodegradable and compostable under industrial, home, soil and marine conditions, thus they can fully revert back to nature.

long-lasting softness
Exhibiting high flexibility, TENCEL™ Modal wood-based fibers offer textiles a long-lasting quality of exquisite softness. Due to the fiber’s sleek cross section, TENCEL™ Modal fibers enhance the soft touch of fabrics even after repeated washing.

Measurements and hand evaluations of softness show that TENCEL™ Modal fibers are twice as soft as cotton. The softness of TENCEL™ Modal fibers lasts longer and is able to withstand repeated wash and dry cycles compared to cotton.
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.

TENCEL™ fibers

smoothness

TENCEL™ Lyocell fibers are naturally smooth to the touch and enhance the quality of fabrics to lightly glide over your skin.
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 more breathable fabrics that support the body’s natural thermal regulation.
unfavorable for bacterial growth

Through moisture management, TENCEL™ Lyocell fibers absorb moisture efficiently*. 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, offering better hygienic qualities.

(*As measured by the Vapor Uptake test and Water Retention Value)

feels cool and dry / thermal regulation

The smooth fiber surface of TENCEL™ Lyocell fibers absorbs moisture more efficiently than cotton. This supports the body’s natural thermal regulating mechanism, keeping your skin feeling pleasantly cool and dry throughout the day and night.
key benefits

strength
TENCEL™ Lyocell fibers are versatile and distinguished by their greater strength among cellulose fibers.

minimal static charge
The ability to absorb moisture makes TENCEL™ Lyocell and Modal fibers tension-free with no electrostatic charging. In comparison with synthetics, there is an absence of electrostatic charge under normal atmospheric conditions.
**drape**

Soft to the touch, fabrics made of TENCEL™ Lyocell fibers produce a smooth drape, creating a flattering appearance.

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**sheen**

Viewed under an electron microscope, TENCEL™ Lyocell fibers exhibit a sleek surface area, giving textiles a luxurious sheen. The deeper dye uptake and smooth fiber surface of TENCEL™ Lyocell fibers make them shine perceptibly more intensively than cotton fabrics.
The smooth surface of TENCEL™ Lyocell fibers enable color dyes to penetrate deeply into the fiber structure, resulting in impressive color brilliance.

Color pigments embedded in dope-dyed fiber retain long-lasting color vibrancy more than conventionally dyed fiber, and are less prone to fade even after repeated washing.
blending partners

TENCEL™ Lyocell fibers are versatile and can be combined with a wide range of textile fibers such as cotton, polyester, acrylic, wool, and silk to enhance fabrics in regards to their aesthetics, performance and functionality.

Offering endless design possibilities owing to its diverse blending partners, TENCEL™ Modal fibers can be found in the collections of well-known brand manufacturers who have been loyal to this classic fiber for many years. Incredibly versatile, TENCEL™ Modal fibers can be blended with most fibers and processed using conventional machinery. Moreover, customized colors can be created using different ratios of blended fibers.

TENCEL™ Modal is a highly compatible blending partner for cotton and due to the fiber’s sleek cross section, adds long-lasting softness to fabrics, enhancing the touch even after repeated washing. Blending fibers with TENCEL™ Modal fibers significantly improves the softness and overall comfort.
TENCEL™ Denim cellulose fibers of botanic origin are tailored to a sustainable lifestyle, liberating personal expression through movement by its natural comfort, smoothness and versatility.

**eco-responsibility**

For 150 years, denim has been a growing part of the cultural landscape around the world. Its versatility allows it to be worn as work wear as well as fashion.

TENCEL™ Denim gives customers peace of mind knowing their products are eco-responsible have a low carbon footprint. Jeans made with TENCEL™ Lyocell and Modal fibers use innovative technology with low amounts of water.

TENCEL™ Lyocell fibers have gained the 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”.

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**Eco Color technology**

**Eco Soft technology**

**REFIBRA™ technology**

**botanic origin**

**color retention**

**enhanced breathability**

**long-lasting softness**

**strength**

**smoothness**

**sustainable production**
TENCEL™ Intimate cellulose fibers of botanic origin lightly embrace your body with such a gentle touch of softness they practically go unnoticed.

Derived from renewable wood sources, TENCEL™ Intimate cellulosic fibers gently embrace your body with long-lasting softness to help your skin feel pleasantly cool and dry throughout the day and night. As a result of the smooth fiber surface, TENCEL™ Intimate cellulosic fibers offer an exquisitely gentle quality that creates a barely there feel. Through efficient moisture management, TENCEL™ Lyocell and Modal cellulosic fibers contribute to more breathable fabrics and provide a less favorable environment for bacterial growth, offering better hygienic qualities.
TENCEL™ Active
athletic and outdoor apparel

TENCEL™ Active cellulose fibers of botanic origin keep your body pleasantly cool and dry with their natural comfort and versatility, enabling freedom to move with confidence.

Contribute to performance

The TENCEL™ brand is a family of fibers well suited for sporting activities. Efficient moisture management is assured as a result of the fiber's structure. Submicroscopic canals between the microscopic fibrils of cellulose fibers regulate the absorption and release of moisture, which contribute to your performance of physical activity by keeping your body pleasantly cool and dry.

TENCEL™ Lyocell and Modal fibers can be combined with other fibers to optimize the resulting fabric properties of sportswear for any sporting activity. For example, in an optimum double-layer fabric construction, TENCEL™ Lyocell and Modal fibers on the outer side act like "blotting paper" and absorb moisture away from the skin.

TENCEL™ Lyocell and Modal fibers can successfully be used for the development of high performance sportswear. As a component of sportswear, the fibers sustain hydrophilic qualities over time (with a fiber surface that attracts water), making it a practical alternative to hydrophilic topical treatments or synthetic fibers.

Blending TENCEL™ Lyocell and Modal fibers with synthetic fibers result in high performance sportswear for athletic activities, which can generate high levels of perspiration. When used in the right fabric design, TENCEL™ Lyocell and Modal fibers offer a quick drying effect through efficient moisture absorption, spreading, and buffering, resulting in enhanced breathability and thermal comfort.
In addition to high performance sportswear, the qualities of TENCEL™ Lyocell and Modal fibers make it suitable for the growing athleisure category – designed for general wear and moderate exercise. TENCEL™ fibers will favorably influence athleisure aesthetics with their highly saturated colors, sheen, and smooth handfeel.
TENCEL™ Home cellulose fibers bring the gentle essence of nature into your home to create a sanctuary of long-lasting comfort.

TENCEL™ Home textiles offer you long-lasting natural comfort and pure living environments. TENCEL™ Lyocell and Modal fibers are naturally soft to the touch with an exquisitely soft handfeel, enhancing your quality of sleep and home life.
Eco Color technology
Eco Soft technology
Micro technology
REFIBRA™ technology

botanic origin
color retention
gentle on skin
long-lasting softness
sustainable production
thermal regulation
basic bedding

bed mattresses & filled products

Compared to other filling materials for duvets, such as cotton, the smooth fiber surface of TENCEL™ Lyocell cellulose fibers absorb moisture more efficiently. This supports the body’s natural thermal regulating properties, to help your body feel pleasantly cool and dry for a comfortable night’s sleep.
Home - basic bedding
With an exquisitely silky handfeel and natural sheen, luxurious bed linens made of TENCEL™ Lyocell gently envelop your body, enhancing your quality of sleep. TENCEL™ Lyocell fibers exhibit a smooth surface area, ensuring natural comfort for sensitive skin. Among the TENCEL™ Lyocell fiber portfolio, Micro technology offers an even finer quality of lightness and exquisite softness to fabrics.

TENCEL™ Modal fibers in home fabrics are exceptionally soft on your skin and have excellent moisture absorption, enabling towels to dry quickly. In comparison to cotton, TENCEL™ Modal fibers remain soft over time and are able to withstand repeated wash and dry cycles, allowing fabrics to retain their softness.

TENCEL™ Modal fibers in towels enhance outstanding color brilliance, making them shine perceptibly more vibrantly than cotton towels.
interiors

carpets & upholstery

Naturally soft to the touch, TENCEL™ Lyocell cellulose fibers keep your living spaces pleasantly comfortable. Displaying a luxurious sheen and silky surface. TENCEL™ Lyocell fibers make carpets and upholstery shine radiantly with vibrant colors.
contact for
further information

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