feels comfortable, naturally

TENCEL™ Home
Bed and Bath

Tencel™
Feels so right

TENCEL™ Home cellulose fibers bring the gentle essence of nature into your home.

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

- The fibers are derived from the renewable raw material wood.
- The certified biobased fibers are manufactured in an environmentally responsible production process.
- The fibers are certified as compostable and biodegradable and thus can fully revert back to nature.

TENCEL™ Lyocell fibers

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

TENCEL™ Modal fibers

Brilliant in color and luster, TENCEL™ Modal fibers are known for being exquisitely soft and pleasant to the skin. TENCEL™ Modal fibers exhibit high flexibility, resulting in a naturally soft quality to the home textile product.

technologies

REFIBRA™ technology

The pioneering REFIBRA™ technology involves upcycling cotton scraps from garment production, which are transformed into cotton pulp. A substantial proportion – up to one third – of this is added to wood pulp, and the combined raw material is transformed to produce new virgin TENCEL™ Lyocell fibers to make fabrics and textiles.

Based on the same 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.

TENCEL™ fibers with REFIBRA™ technology are identifiable in yarns, fabrics and final garments owing to the innovative special identification technology designed to confirm fiber origin. In turn, this improves supply chain transparency.

Micro technology

Among Lenzing's lyocell and modal fiber portfolio, Micro technology offers an even finer quality of lightness and exquisite softness, producing lightweight fabrics, based on their fine titer. Using Micro technology, TENCEL™ Lyocell and Modal Micro fibers pioneer a new dimension of exquisite softness and lightness, offering long-lasting natural comfort.

Eco Soft technology

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 generates very low emissions to air.

Eco Color technology

This eco-responsible technology offers long-lasting color fastness and design flexibility in textiles. Spun-dyed TENCEL™ Modal fibers provide efficient ecological advantages, substituting for the resource-intensive conventional dyeing process. They retain long-lasting color vibrancy more than conventionally dyed ¬fiber, and are less prone to fade even after repeated washing.

key benefits

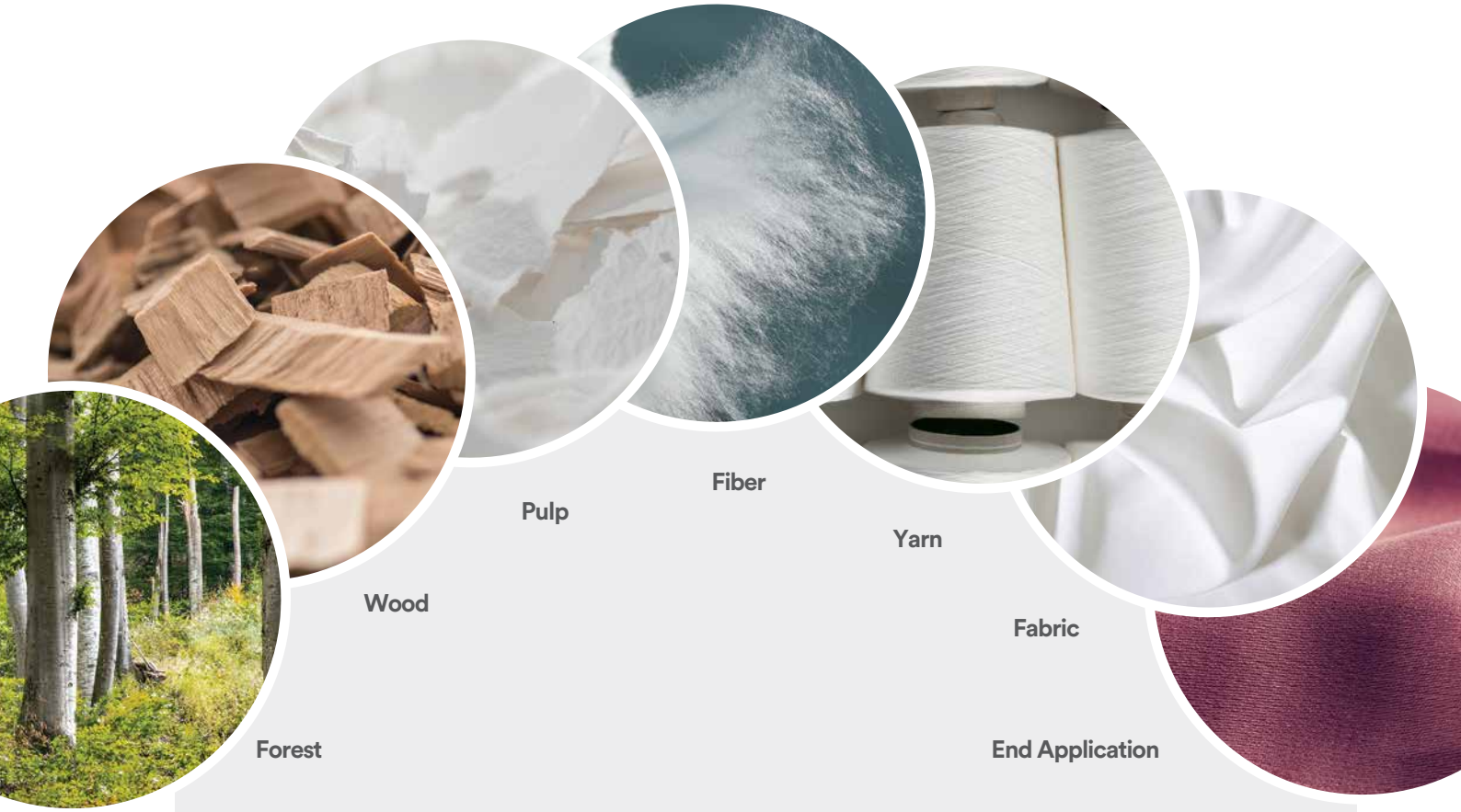
botanic origin

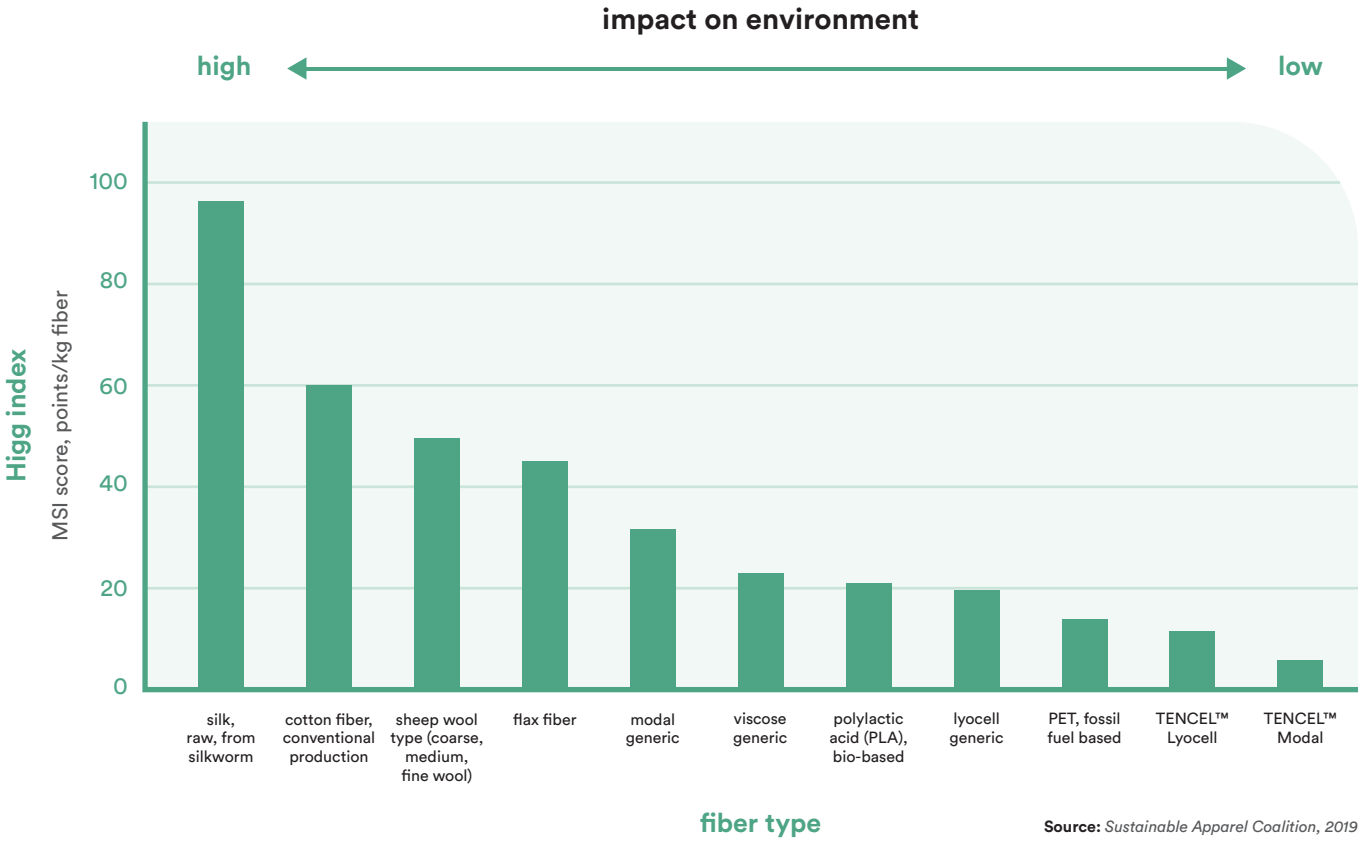
TENCEL™ Lyocell fibers are derived from sustainable wood sources, harvested from certified and controlled sources following the stringent guidelines of the Lenzing Wood and Pulp Policy.

TENCEL™ Modal fibers are mainly manufactured from beech wood, sourced from sustainable forests in Austria and neighboring countries. Beech wood forests are a natural and renewable source of raw material. A big share of the wood used at the Lenzing site comes from Austria, harvested from certified and controlled sources following the stringent guidelines of the Lenzing Wood and Pulp Policy.

TENCEL™ Lyocell and Modal fibers are available with FSC® (FSC-C041246) or PEFC™ (PEFC/06-33-92) certification upon request. Moreover, wood and pulp used by the Lenzing Group comes from sustainably managed forests. TENCEL™ Lyocell and Modal fibers have earned United States Department of Agriculture (USDA) BioPreferred® designation.

USDA Certified
Biobased Product





Source: *Sustainable Apparel Coalition, 2019*

These results were calculated using the Higg Materials Sustainability Index (Higg MSI) tools provided by the Sustainable Apparel Coalition. The Higg MSI tools assess impacts on the environment of materials from cradle-to-gate for a finished material (e.g. to the point at which the materials are ready to be assembled into a product). However, this figure only shows impacts from cradle to fiber production gate.

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” (2002).

Fully integrated pulp and fiber production at the Lenzing site in Austria makes it possible to produce **TENCEL™ Modal fibers** in an environmentally 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.

All TENCEL™ Lyocell and Modal fiber production sites are certified according to the requirements of the European Ecolabel for textile products, a label of environmental excellence only awarded to products and services, which have a significantly lower environmental impact throughout their lifecycle: from raw material extraction, to production, distribution and disposal – an integrated process. Moreover, all TENCEL™ Lyocell and Modal fiber production sites operate according to a certified Environmental Management and Occupational Health and Safety system (ISO14001, OHSAS 18001).

The European Ecolabel (EU Flower)

biodegradable

Derived from the raw material wood – a product of nature – all TENCEL™ standard lyocell and modal fiber types have been certified as biodegradable and compostable under industrial, home, soil, fresh water and marine conditions, thus they can fully revert back to nature.

OK biodegradable MARINE

OK biodegradable SOIL

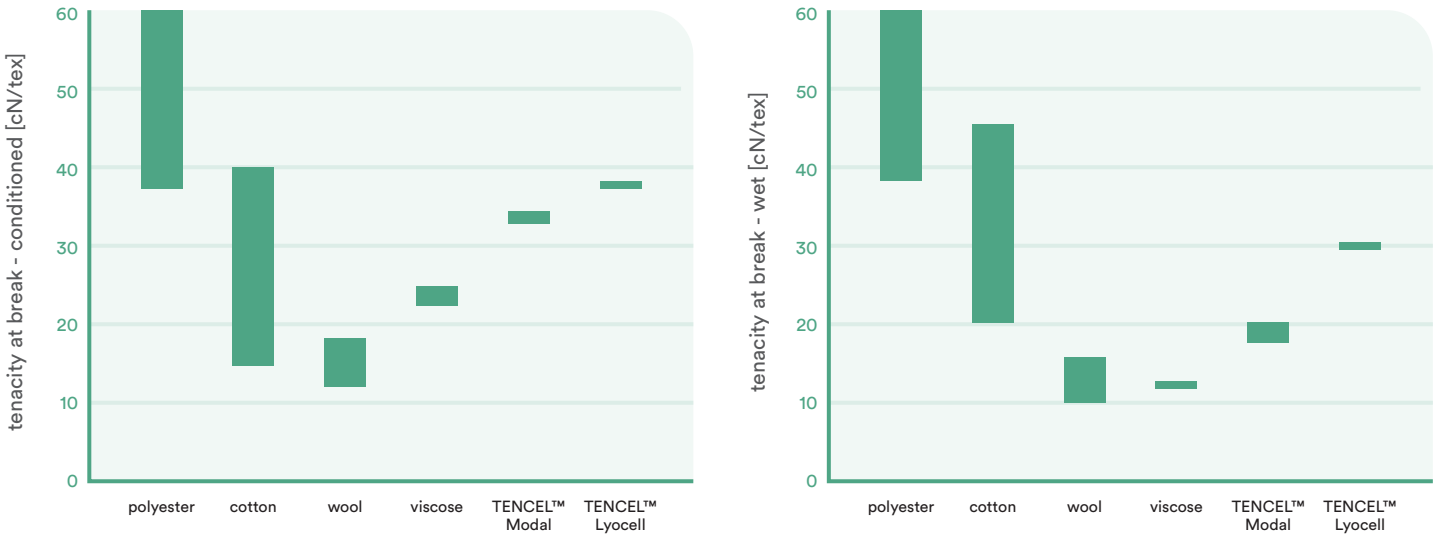
OK biodegradable WATER

OK compost HOME

OK compost Industrial

among the strongest man-made cellulose fibers

TENCEL™ Lyocell fibers are versatile and distinguished by their high tenacity profile among man-made cellulose fibers. TENCEL™ Lyocell is tailor-made and available in several linear densities. Whether ¬fine or coarse, it remains strong across a variety of home applications.



tenacity at break

Source: *Lenzing internal tests*

TENCEL™ Home – Bed

pillow

filling:
LENZING™ Lyocell Fill
LENZING™ Lyocell Fill RB

shell fabric:
LENZING™ Lyocell Micro
LENZING™ Lyocell Standard
LENZING™ Lyocell RB

fitted sheets

woven:
LENZING™ Lyocell Standard
LENZING™ Lyocell Micro
LENZING™ Lyocell RB

knitted:
LENZING™ Lyocell LF
LENZING™ Lyocell LF RB

mattress

ticking:
LENZING™ Lyocell Standard
LENZING™ Lyocell Micro
LENZING™ Lyocell RB

padding:
LENZING™ Lyocell Fill
LENZING™ Lyocell Fill RB

core:
LENZING™ Lyocell Powder

duvet cover / flat sheets

LENZING™ Lyocell Standard
LENZING™ Lyocell Micro
LENZING™ Lyocell RB

comforter / quilt

filling:
LENZING™ Lyocell Fill
LENZING™ Lyocell Fill RB

shell fabric:
LENZING™ Lyocell Micro
LENZING™ Lyocell Standard
LENZING™ Lyocell RB

mattress pad

filling:
LENZING™ Lyocell Fill
LENZING™ Lyocell Fill RB

shell fabric:
LENZING™ Lyocell Micro
LENZING™ Lyocell Standard
LENZING™ Lyocell RB

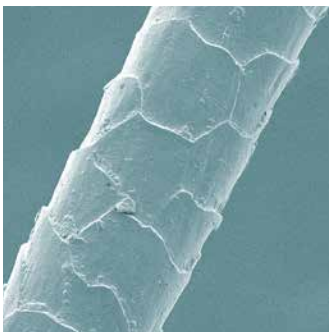
The versatility and efficient moisture management of TENCEL™ fibers and TENCEL™ x REFIBRA™ technology allow them to be used in every part of your bedding system. TENCEL™ Home fibers can be incorporated into filling for comforters and pillows.

Soft, good looking and comfortable, TENCEL™ fibers have been demonstrated to give a feeling of restful relaxation during sleeping. Pleasant dreams!

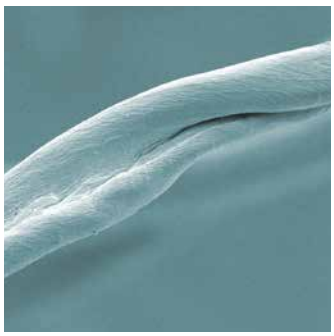
gentle on skin

When viewed under an electron microscope, TENCEL™ Lyocell fibers exhibit a smooth fiber surface, giving bed textiles a pleasant feel and ensuring long-lasting comfort even after many washes.

TENCEL™ Lyocell



wool



cotton

moisture management

TENCEL™ Home fibers offer you natural comfort and pure living environments. TENCEL™ Lyocell fibers support body temperature regulating properties through their excellent moisture management. Derived from natural raw material, the microscopic fibrils of TENCEL™ Lyocell fibers are structured to regulate the absorption and release of moisture, thus supporting the body's natural thermal regulation and providing breathable comfort.

TENCEL™ Lyocell fibers demonstrate high moisture absorption. Tests show that TENCEL™ Lyocell fibers keep your sleeping environment comfortably dry even in humid conditions.

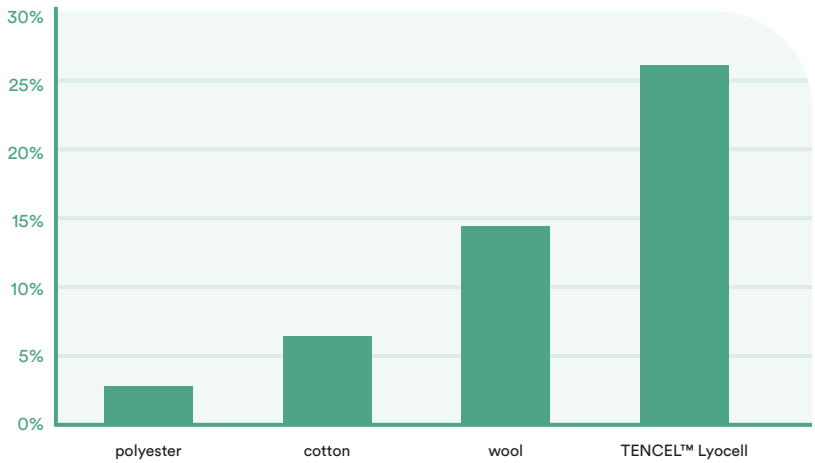
TENCEL™ Lyocell

polyester

cotton

Source: *Mohammad Abu-Rous, doctoral thesis, Leopold-Franzens University Innsbruck, 2009*

absorption of vapor with an extreme air humidity



Source: *Lenzing internal test.*

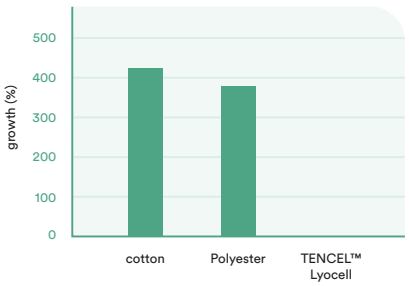
unfavorable for bacterial and dust mite growth

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, and even to cotton, 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.

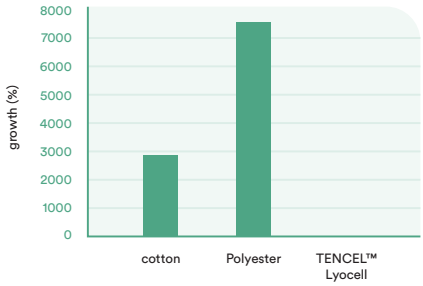
Particularly on three of the odor-relevant bacteria types tested (Staphylococcus epidermidis, Pseudomonas aeruginosa, Escherichia coli), a significantly lower growth rate was observed on TENCEL™ Lyocell compared to cotton and polyester under moderate humidity conditions.

The high moisture absorption ability also generates a less favorable ambience for dust mites compared to cotton, as proven by NF G 39-011, the only normed European test for dust mite growth.

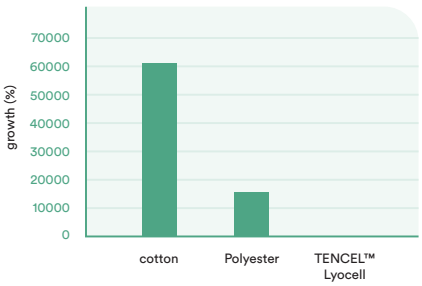
Staphylococcus epidermis



Pseudomonas aeruginosa

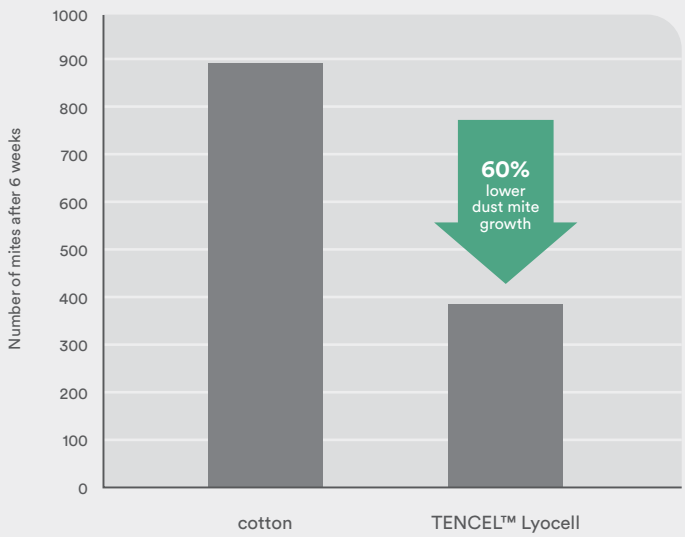


Escherichia coli



Source: *Hohenstein Institut für Textilinnovation GmbH, Germany Report no. 18.8.6.0007*

natural protection against dust mites



fiber	start	end (6 weeks after)	growth (%)
cotton	50	886	1672
TENCEL™ Lyocell	50	388.7	677

Source: *Laboratoire T.E.C. Report No. 2277/1117R. Tested according to the Standard NF G 39-011)*

contributes to sleep comfort

TENCEL™ Lyocell fibers absorb moisture efficiently to help make your sleeping environment dry and pleasant, which is one of the important factors contributing to good sleep comfort. This aligns with the body´s natural thermal regulating mechanism, giving you a feeling of restful relaxation during sleeping. With satisfactory sleep quality, you may feel refreshed when you wake up. Beddings made with TENCEL™ Lyocell fibers thus contribute to stable sleep phases in the night.

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.

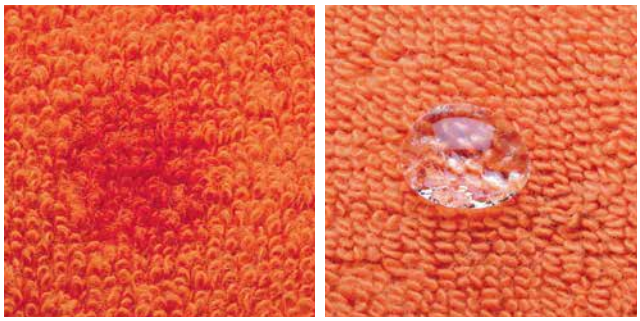
TENCEL ™ Home – Bath

towels of exquisite and long-lasting softness

TENCEL™ Modal fibers in home fabrics are exceptionally soft on your skin and have efficient moisture absorption. 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.

efficient moisture absorption – excellent for towels

Fabrics containing TENCEL™ Lyocell and Modal fibers offer efficient moisture absorption.



Towel made with TENCEL™ Lyocell and Modal (left) absorbs the moisture immediately. On cotton (right) the water droplets stay where they are.

Color vibrancy

The efficient dye uptake and smooth fiber surface of TENCEL™ Lyocell fibers make the colors appear brighter and perceptibly more intense than those of cotton fabrics.

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