Welcome to the Lenzing Group

4ª Jornada Industria Textil y Sostenibilidad

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Agenda

1. About us
   I. Our fibre story
   II. What we do
   III. Textiles fibers
   IV. To consumer

2. Challenges
   I. Global
   II. Targeted

3. What if...
   I. Naturally positive

4. With...
   I. Biorefinery model and Lenzing™ Lyocell
   II. REFIBRA™ Technology
   III. TENCEL™ Carbon Zero
   IV. Continuous innovation

5. Taking action
   I. Partnering for systemic change
   II. Initiatives and certifications

6. Standing up
   I. Lenzing solutions
   II. Further information
1. About us

Our fiber story
What we do

LENZING™ fibers produced from the raw material wood
Fibers on the world market

- **From synthetic polymers**
  - Polyester, Polyamide, Polypropylene, Polyurethane (Elastan), Acrylic, Polytetrafluoroethylene

- **From natural polymers**

  **Protein-based**
  - Wool, Silk, Angora, Cashmere, Casein, Collagen, Ardein, Zein etc.

  **Cellulose-based**
  - Cotton & bast fibers
    - Cotton, Flax, Hemp, Jute etc.

- **From anorganic substances**
  - Carbon, Ceramics, Glass, Metall

- **Wood-based**
  - Viscose, Modal, Lyocell, Cupro etc.
Global fiber consumption in 2020

Worldwide fiber consumption 2020
98.2 mn tons

64.0 % Synthetic fibers
6.7 % Wood-based cellulosic fibers
23.2 % Cotton
1.1 % Wool
5.0 % Other natural fibers

1) Sources: ICAC, CIRFS, TFY, Lenzing Estimates
Our brand architecture

For textile

For nonwoven

For industrial
2. Challenges we are facing
Global sustainability challenges

- Growing population
- Linear Economy
- Uses of land: food vs. fiber
- Climate change
- Deforestation & Biodiversity loss
- Water scarcity
- Plastic waste
- Marine pollution
Customer sustainability target areas

**Planet**
- Energy
- Waste
- Water pollution and consumption
- Wastewater
- CO₂ emissions
- Sustainable materials
- Circular Economy

**People**
- Employee engagement
- Community development
- Diversity
- Supplier assessment
- Living wages, safe & fair labor
3. What if…
„Naturally positive“
Lenzing’s Sustainability Strategy

Our passion is to provide truly sustainable solutions for a growing world. We create a positive impact for the people we work with, the consumers we serve, and the society and environment in which we operate. In doing so, we are commercially successful.
4. **With...**

Closing the loop

I. Biorefinery model and Lenzing™ Lyocell
II. REFIBRA™
III. TENCEL™ Carbon Zero
IV. Continuous innovation
I. Biorefinery model

Lenzing site

Sustainable forests → Wood → Biorefinery factory

Dissolving wood pulp

Lenzing products:
- Lenzing™ Viscose fibers
- Lenzing™ Modal fibers
- Lenzing™ Lyocell fibers & filaments

Biorefinery products:
- Lenzing™ Acetic Acid Biobased
- Lenzing™ Furfural Biobased
- Lenzing™ Magnesium-Lignosulphonate Biobased
- Lenzing™ Soda Ash
- Lenzing™ Hemilye
- Lenzing™ Mother Liquor
- Xylose

Black liquor

Bioenergy
- Electricity
- Heat

Bioenergy plant
I. TENCEL™ Lyocell

Lyocell production process
II. REFIBRA™ technology
A brand initiative for innovative special edition fibers

TENCEL™
limited edition

www.lenzing.com

15.11.2021 - 18
TENCEL™ Limited Edition hemp

LENZING Lyocell LE hemp 1.7 dtex/38mm

Lyocell Standard fiber with proportion of hemp pulp, utilizing bast fibers from the outer layers of stems and branches, grown in Europe hemp.

Benefits of industrial hemp:
• one of the fastest growing plants (4-5x faster than wood)
• requires less land
• helps to improve soil quality
• faster CO₂ uptake than wood
TENCEL™ Limited Edition orange

LENZING Lyocell LE orange 1.7 dtex/38mm

Cooperation with Italian start-up company Orange Fiber

Lyocell Standard fiber with proportion of orange peel pulp
utilizing waste from orange juice production in Sicily.
TENCEL™ Lyocell and Modal
Carbon Zero
III. TENCEL™ Carbon Zero fibres

Supporting the decarbonization of the textile industry

**reduce**

Continuous reduction of carbon emissions through more efficient production methods, using renewable energy sources and embracing new technologies.

**engage**

We engage and steer our industry to source materials with low carbon footprints and reduce overall carbon emissions.

**offset**

We offset unavoidable carbon emissions by supporting verified global carbon reduction projects.

Commited to:  
Certified as:  

Driving ambitious corporate climate action
TENCEL™ Modal
Indigo Color technology
Resource Savings

Savings using TENCEL™ Modal with Indigo Color technology compared to conventional powder indigo dyeing and conventional pre-reduced liquid indigo dyeing:

- Water: >99%
- Chemicals: >80%
- Electricity: >99%
- Wastewater: >99%
- Heat energy: 100%

www.lenzing.com
TENCEL™ Lyocell
Matte
Lyocell Matte is a 1.7 dtex Lyocell standard fiber containing dulling agents:
- 4% Ba Sulfate
- 0.75% Titanium Dioxide

Matte TENCEL™ Lyocell – versatility for denim
5. Taking action for systemic change
I. Networking & partnering for systemic change

Nonwoven & textile value chain

Investors / Raters

Multi-stakeholder initiatives

Brands & Retailers
Consumer

NGO's

Governments

Water
Circularity
Climate
Deforestation

Wood
Pulp

Fiber production
LENZING® fibers

Employee Empowerment
Fair and safe wages and working conditions
Diversity
Community development

Draft Only
I. Partnering for systemic change: Initiatives & Certifications
VI. Standing up
Sustainability
Lenzing’s solutions to sustainability challenges of textile industry

- Responsible sourcing
- Reduced product footprints and CO₂ neutrality by 2050
- Sustainable Innovations and Circularity
- Transparency & Partnerships
Further information

www.lenzing.com

Corporate Sustainability

Where to source?

Where to buy?
Thank You

Barcelona, Spain
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