



## Textile solution for temperature regulation

*Cools and heats in its unique way throughout the entire product life*

### Cellulose – a natural product

Cell Solution® CLIMA is made of wood from sustainable forestry. Cellulose is breathable and regulates moisture. Textiles made of cellulose are more absorptive than cotton, they are silkier than silk and cooler than linen. The fiber naturally absorbs excess moisture and progresses it away from the body. The ability of cellulose to transport moisture is superior to that of the synthetic fiber. The fiber structure supports a pleasant skin climate and is temperature-balancing.

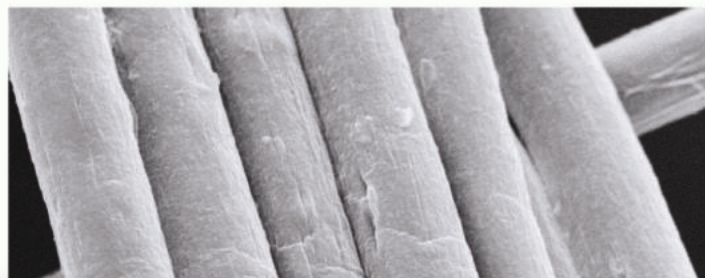
### Cell Solution® functional fibers

The fibers are produced particularly environmentally friendly with the patented ALCERU® procedure. The active substance is directly integrated into the cellulose matrix imparting a permanent additional function to the fiber.

### Natural temperature regulation

PCM function - temperature regulation with integrated phase change material. The phase change material is paraffin that melts in a temperature range of 28-32°C). Paraffin has the capability to latently accumulate energy when it is changing phase from solid to liquid.

The fibers absorb excessive heat, accumulate it and release it when needed. When the body or ambient temperature increases, the Cell Solution® CLIMA fibers accumulate the excessive heat. When the temperature drops, they release the accumulated heat.



# Innovations characterize the range of products

## Highest quality

Cell Solution® CLIMA actively balances temperatures that are too hot and too cold and provides a personal comfort climate in this way.

- PCM direct embedding
- Heat accumulation capacity for:
  - 6.7 dtex: > 90 Joules / gram fiber
  - 2.3 dtex: > 50 Joules / gram fiber
- Smooth surface
- Good textile processing
- dyeability in all colors with very good fastness
- Cellulose guarantees perfect moisture management
- More than 80% of the fiber components are natural raw materials
- Clearly improved heat storage capacity compared with similar products
- Washable
- Oeko-Tex Standard 100 product class 1 (textile items for babies and toddlers up to 3 years) certified

## Protection of human body against heat and cold

Cell Solution® CLIMA supports the normal insulation capability of a textile product, e.g. a fiber blanket or clothing. The body is kept warm for a considerably longer period even at low temperatures and during rests and the body is cooled in strong heat and thus overheating due to physical exercise is prevented. Products with the Cell Solution® technology make you feel „exactly right“ regardless of the activity or season. Increased comfort due to reduced sweating is a measurable added benefit and provides a proven advantage in many situations in life.

## Fields of application

- Sportswear/ Outdoor/ Outerwear
- Knitwear and Underwear
- Lining for shoes and gloves
- Knitted gloves and beanies
- Helmets
- Orthopedic bandages
- Clothes for pets
- Bedding / sleeping comfort (mattresses, pillows, blankets)
- Footwear (socks, shoe insoles)
- Work clothes for areas with rapidly changing temperatures (cold storages, fire service, etc.)



Please contact us if you have any further questions or would like to have more information.

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