



Merino goes technical with ADVANSA Thermo^o Cool[®]

May, 16th 2013
Munich



Company Presentation – Südwolle Group

südwollegroup

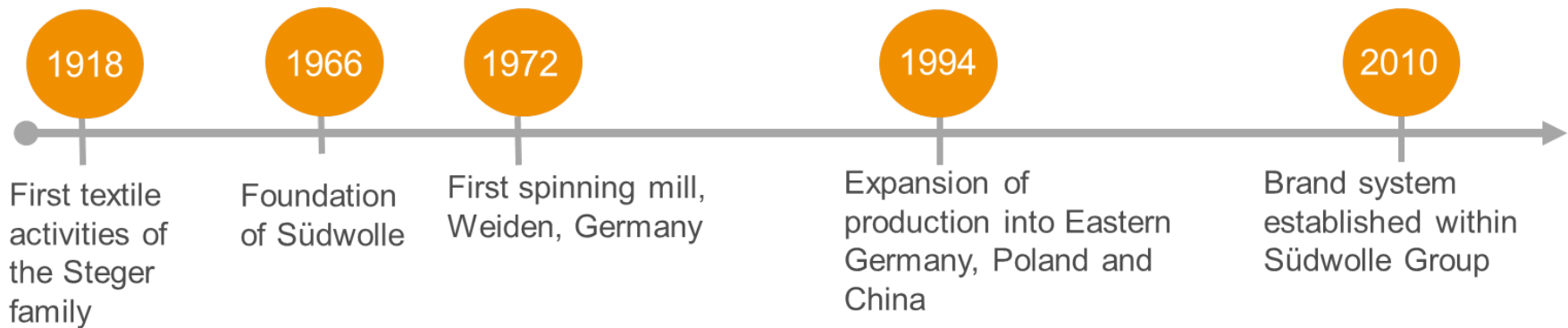
"As a family business Südwolle Group is committed to producing the very best solutions to customers in a sustainable and partnership focused manner."

Klaus Steger
Managing Director

Company Presentation – Südwolle Group

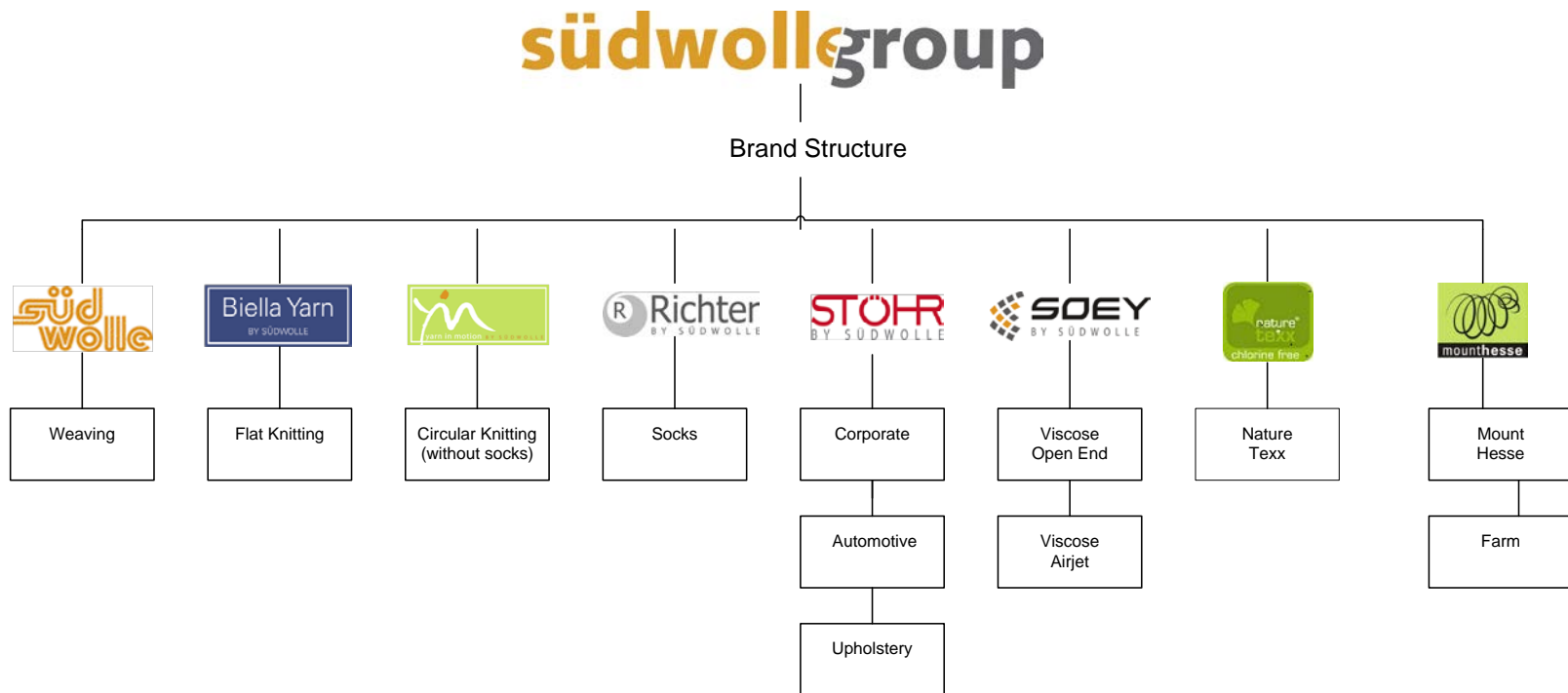
History

- A century of wool and textile innovation and leadership
- Tradition underpinning a modern and dynamic business
- Total of 2,200 employees in 2012



Company Presentation – Südwolle Group

Brand Structure



Company Presentation – Südwolle Group

Features

- The largest manufacturer of worsted wool yarn worldwide.
- Offers comprehensive stock range on all standard yarns, wool and blended covering an extraordinary broad count range from Nm 9 to Nm 120
 - Seasonal colour palette
 - High quality, single sourced, natural yarn
 - Global stock service – 24 hour dispatch
- Location specific auditing and quality control
 - Quality
 - Efficiency
 - Cost
 - Environmental accountability
- Capacity and availability of all Südwolle Group brands globally - guaranteed

Company Presentation – Südwolle Group

Globally active

Europe

- **Germany**
Headquarters Metropolregion Nürnberg
2 warehouse
- **Italy**
Südwolle Group Italy – Distribution center ex Italy
Association with a speciality yarn mill - Biella (Piemont)
- **Poland**
2 spinning mills (since 1992) – Lodz
- **Rumania**
SWS joined Südwolle Group in 2010 - Simleu Silvaniei
- **Great Britain**
Südwolle Group Great Britain – Distribution center for
England, Ireland, Scotland, Wales

Rest of the world

- **China**
Zhangjiagang Yangtse Spinning
Spinning mills (managed under internationally binding
Criteria and quality standards)
DyeCo
Viscose Open End and Air Jet yarns for SOEY brand



張家港揚子紡紗有限公司
ZHANGJIAGANG YANGTSE SPINNING CO.,LTD.

- **Canada**
Südwolle Group North America – Distribution center for
Canada / USA
- **Australia**
Sheep Farm, Mount Hesse

Company Presentation – Südwolle Group

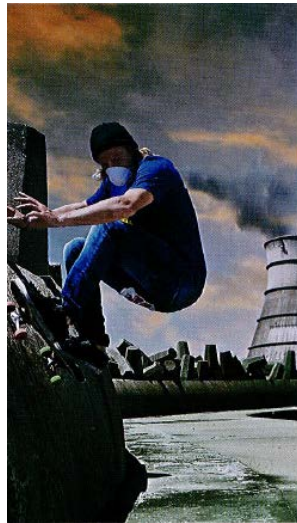
Südwolle Group can offer yarns under the following certifications:

• bluesign®

bluesign®
approved



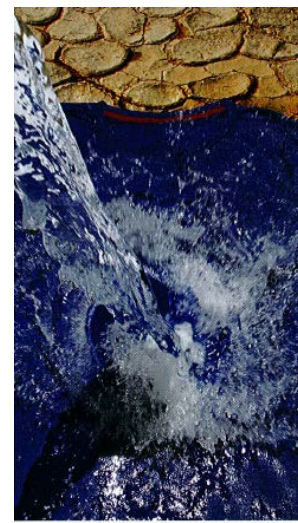
Resource
Productivity



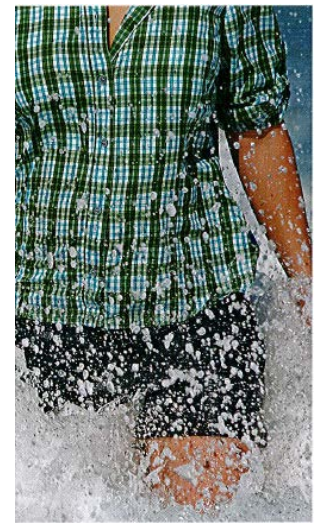
Air
Emission



Occupation
Health & Safety



Water
Emission



Consumer
Safety

Company Presentation – Südwolle Group

Further quality certifications which can be offered:

- ISO 9001:2000

- OekoTex 100 (class I + II)



- ISO 14001

- GOTS



- IVN Best



- EU eco-flower



o ADVANSA Company Profile



The leading European polyester fibre producer

- Sales revenue 2011: 150 millions €
- Production unit: Hamm-Uentrop, Germany
- Worldwide representation: Commercial offices and network of logistic and representative offices in Europe, United States and Asia
- Main products:
 - Staple fibres, filament and polymers
 - for the apparel industry (sportswear, workwear, socks)
 - for hometextiles (pillows, quilts, mattresses) and
 - for the nonwovens industry (wallpaper, filters, hygiene and medical products)

o Brands & Technology

- In Greater Europe, ADVANSA has the exclusive rights including sub-licensing for former DuPont polyester technology, patents, brands and trademarks (i.e. Dacron®, Coolmax®, Thermolite®) owned today by INVISTA.

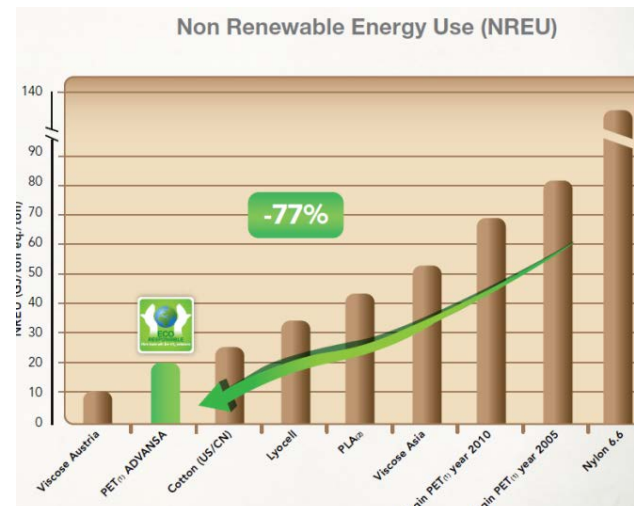
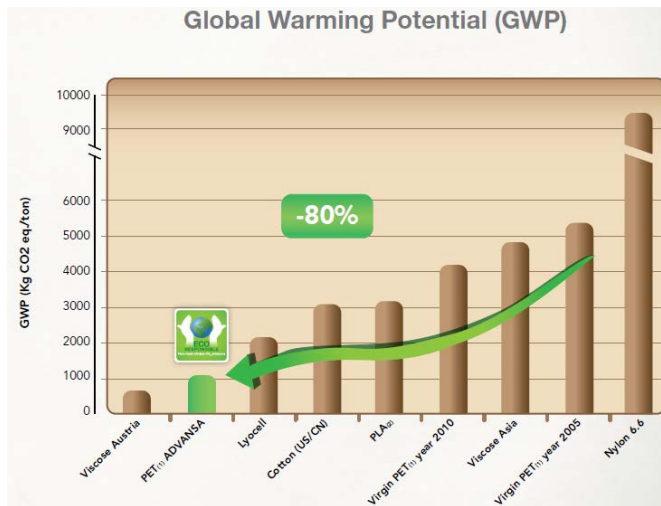


- Since 2004, ADVANSA has progressively developed new state of the art fibres and yarns as well as global brands using stand alone R&D capabilities.



o Sustainability

- ADVANSA has invested in a new production technology allowing a decrease of more than 80% of carbon footprint during the fibre life cycle (study available).
- A new logo has been designed to communicate the importance of environmental protection and consumer direct responsibility in their purchases.
- This Eco-Responsible logo is available for the eco-friendly range of fillings like Dacron®, Hollofil® Eco, Hollofil®, Allerban® and also for Thermo°Cool® Eco.





ADVANSA
Thermo^o
Cool[®]

The Duoregulation[™] fibre technology





ADVANSA
Thermo[®]
Cool[®]

The Duoregulation[™]
fibre technology

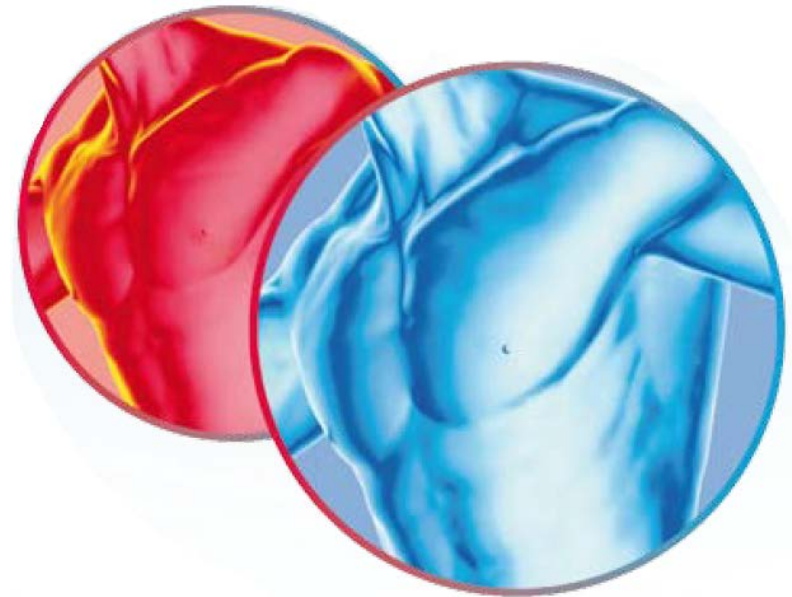


Feeling too **cold** or too **hot**?

Feeling too **cold** or too **hot**?

Thermo°Cool® adapts to the wearer's thermal needs providing **Duoregulation™**.

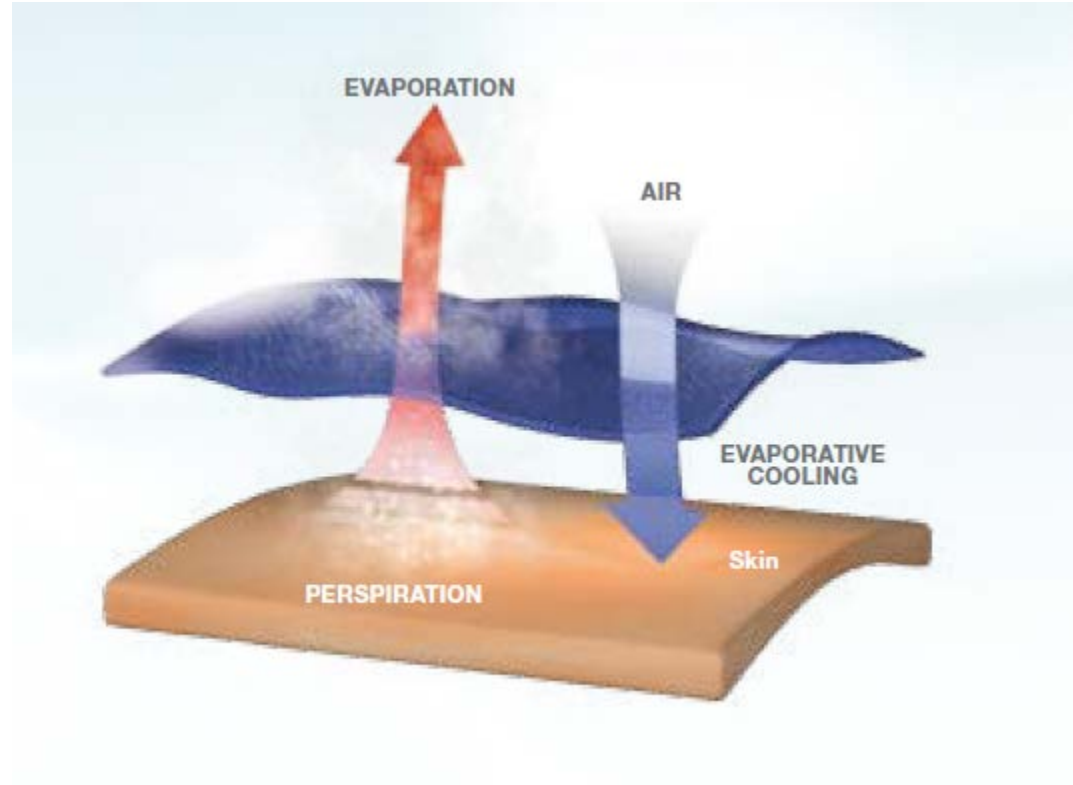
Thermo°Cool® is designed to optimize the body's natural thermal capabilities through smart fibres with specially engineered cross sections combined to deliver adaptive functionality.

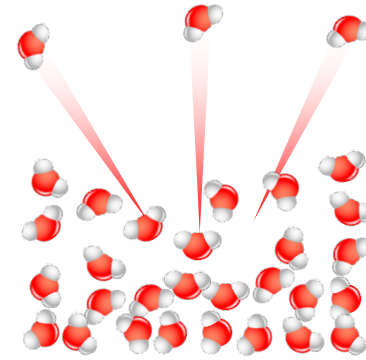


Feeling too HOT?

Thermo^oCool® evaporates moisture faster than other materials thanks to its unique fibre mix.

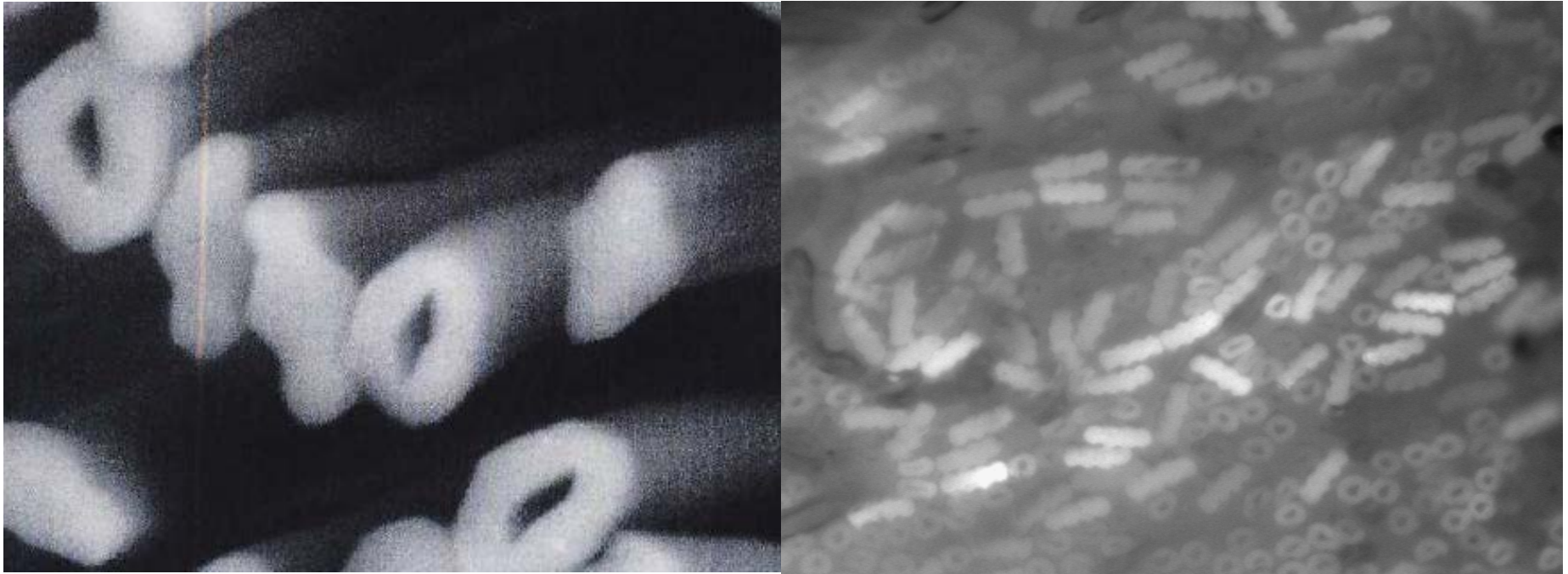
The fibres are designed to provide added evaporative surface, outstanding moisture transport and allow enhanced air circulation focussing energy on the evaporation process.



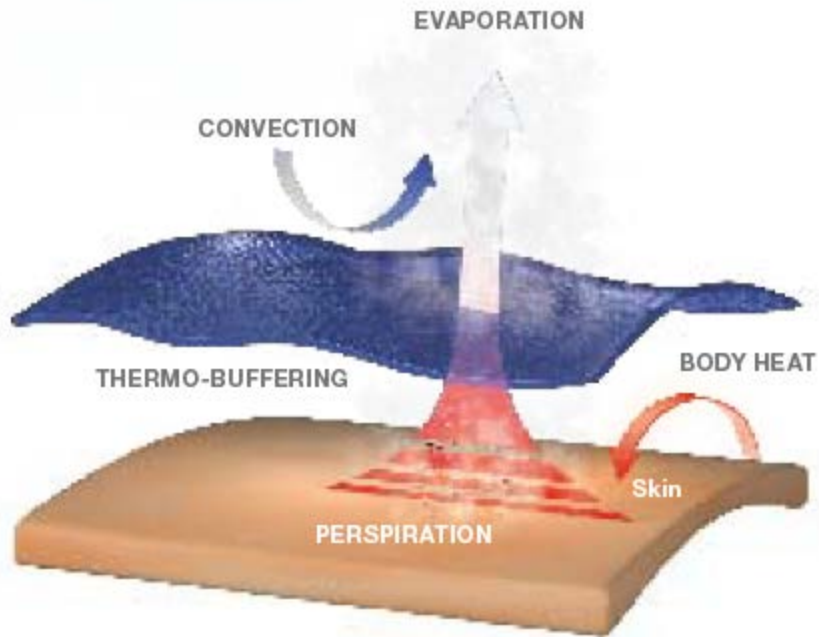


Evaporation is more efficient where the fibre mix allows an improved air permeability that prevents pockets of high density of H₂O within the fibre gaps.

Thermo^oCool® is a **fibre mix** that with a **combination** of shapes of channeled fibres and hollow fibres creates additional spaces within the fibres that allow a **better circulation of air**, improving significantly the fabric's **evaporation** capability.



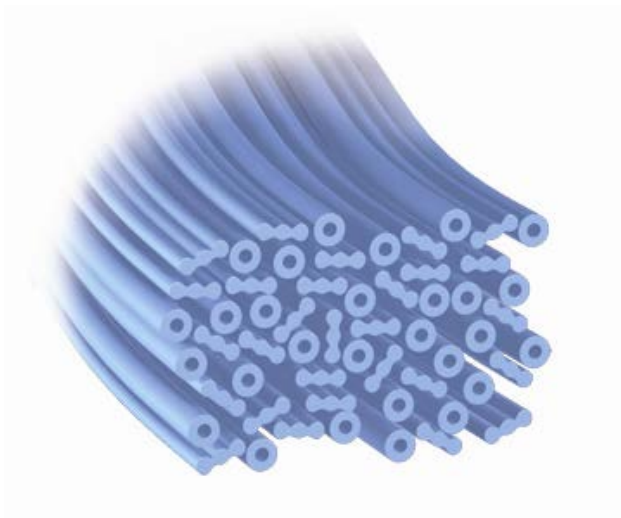
Thermo^oCool[®] fabrics are made with a unique **fibre mix** in staple fibres and filament yarns. This **combination** of shapes and the hollow fibres create additional spaces within the fibre mix that allow a **better circulation of air**, improving significantly the **evaporation** capability within the fabric.



Feeling too COLD?

The unique fibre combination in a **Thermo^oCool®** fabric provides a lightweight material with thermo-buffering properties, designed to protect the user from temperature changes.

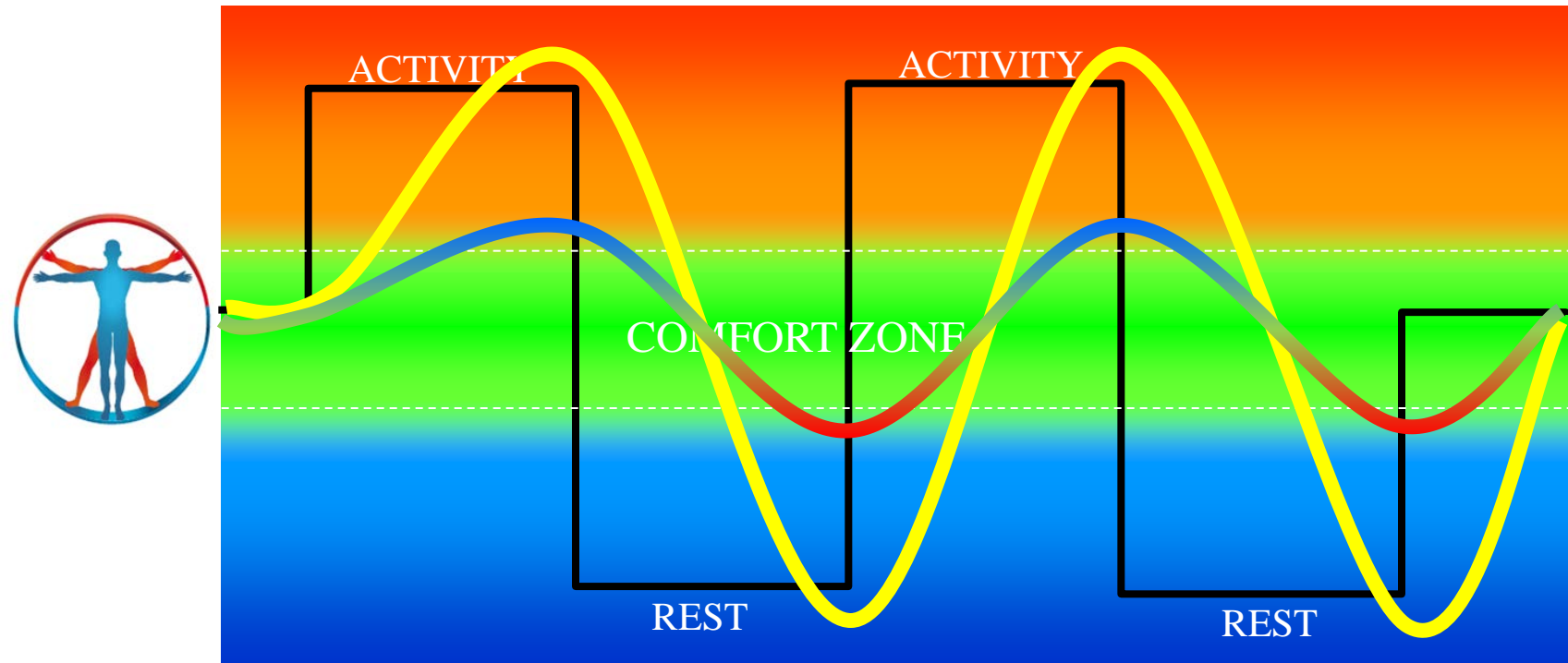
Thermo^oCool® helps to prevent post exercise chill and allows excess heat to dissipate into the air.



The portion of **hollow** round cross section fibres of **Thermo^oCool®** provide lightweight insulation that provides **thermobuffering** capability.



The hollow's voids attenuate temperature differences between the inside and the outside of the garment and can be compared with a sort of permeable **double glazed window** which helps to prevent a room's temperature to drain too quickly to outside, independently of whether it is cold or hot outside. The fibre's improved air permeability allows vapour particles to reach the exterior, avoiding condensations that would reduce the efficiency of evaporative cooling and avoiding excess heat.



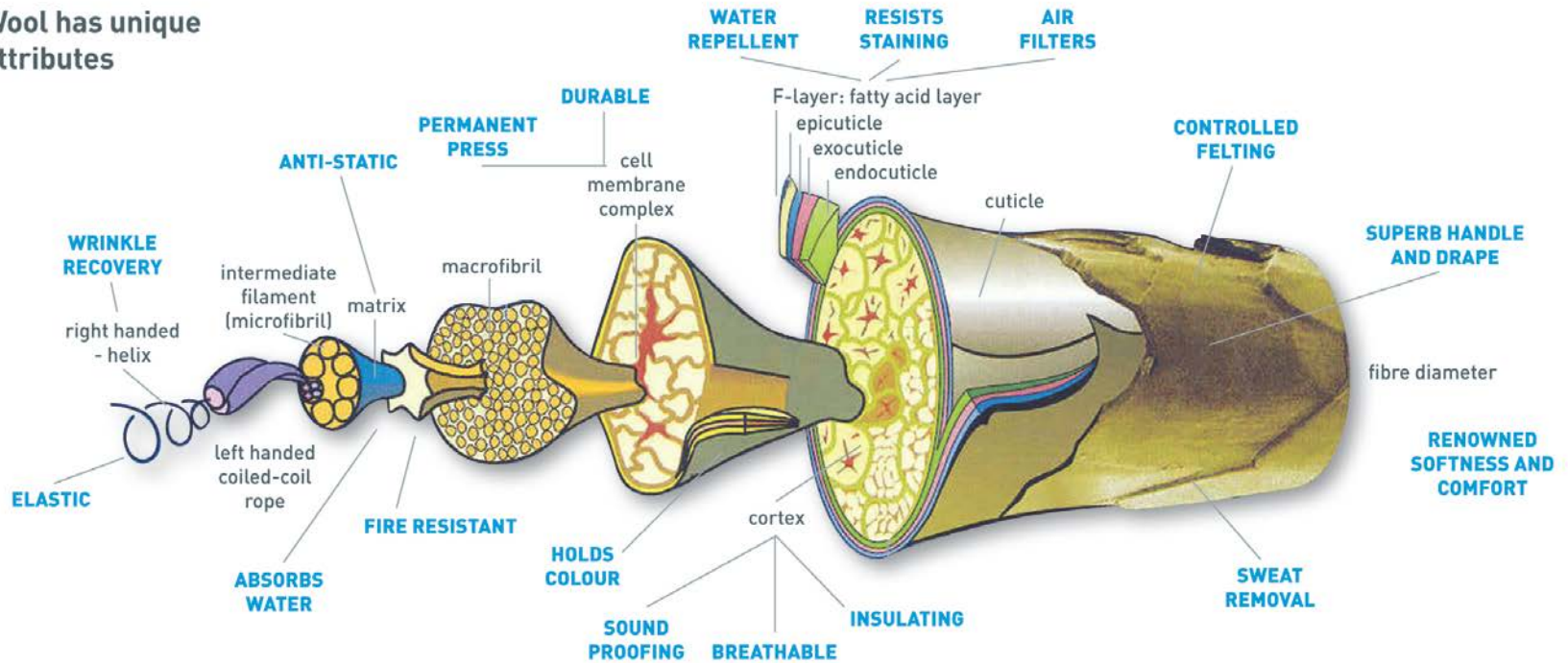
Thermo^oCool® provides **Duoregulation™** designed to keep wearers in their Comfort Zone across the different temperature changes and activity levels. This means saving body energy and improving wellness to allow you to focus on your performance.

Merino Wool

A natural fibre

Merino – a natural fibre

Wool has unique attributes



Merino – a natural fibre

Natural

Merino has an entirely natural fibre grown year-round by approx. 95 million Merino sheep worldwide, consuming a simple blend of water, air, sunshine and grass.

Biodegradable

Unlike most man-made fibres, when Merino fibre is disposed of it, naturally decomposes back into the earth in a matter of years. Most synthetics on the other hand, are extremely slow to degrade.

Renewable

Every year Merino sheep produce a new fleece, making Merino a completely renewable fibre source.



Merino – a natural fibre

The structure of a wool fibre

The Performance Fibre

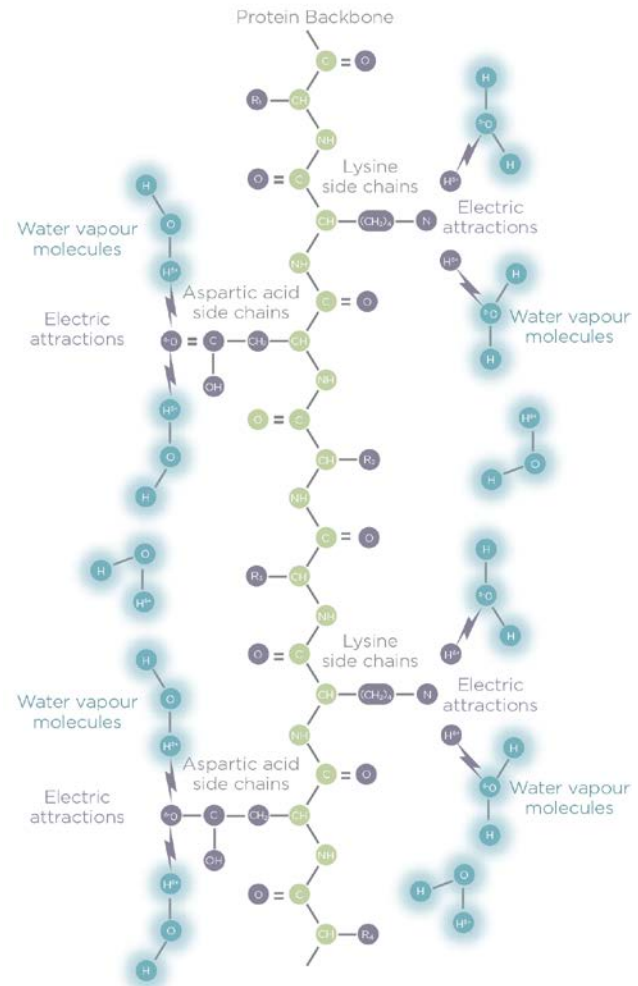
Merino is one of the world's most technically advanced fibres with unique moisture and temperature regulation properties

How the unique structure of wool affects its performance

The chemical bonding within a Merino fibre has the effect of allowing the fibres to pull moisture vapour into them

Without this effective dispersal system, the vapour simply condenses to form sweat droplets on the skin's surface. The diagram represents this unique fibre structure of Merino's side chains

A molecular view of a wool fibre

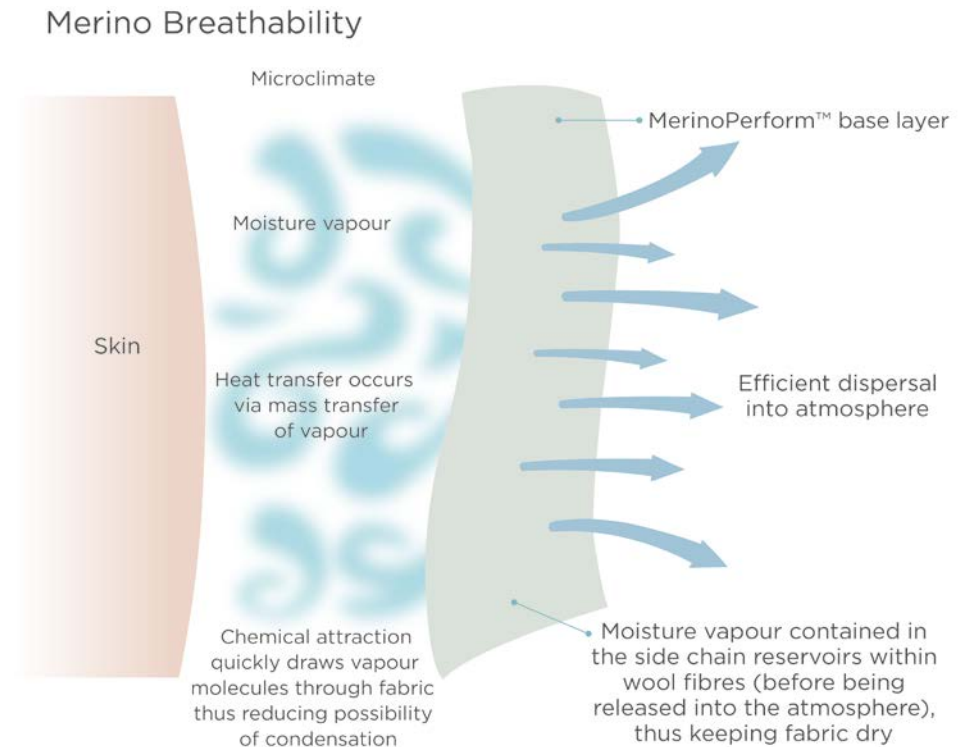


Merino – a natural fibre

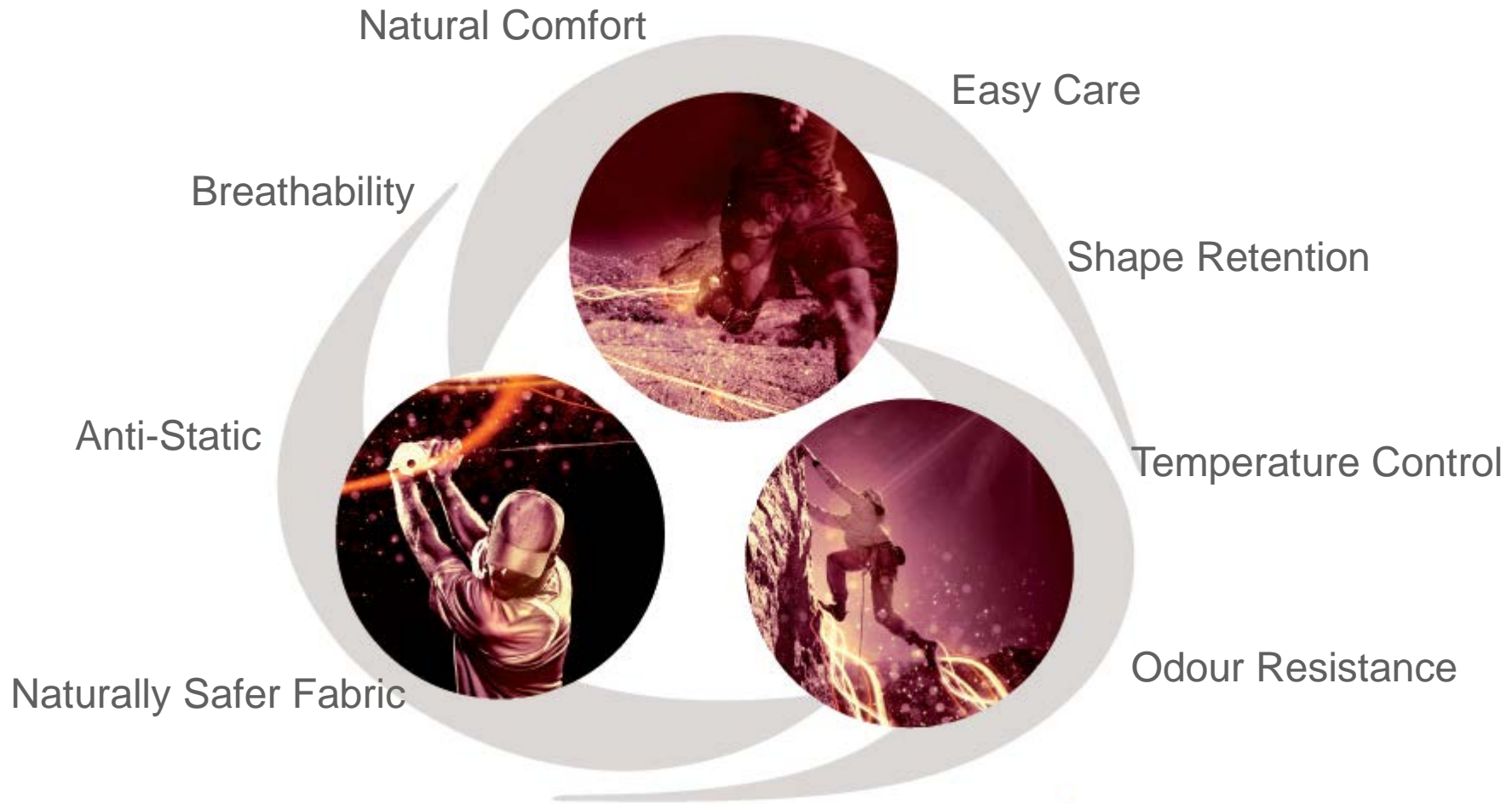
Moisture Management

Merino fibre can absorb up to 35% of its dry weight in moisture vapour. Therefore, in hot climates or during strenuous exercise, a Merino garment close to the skin actively transfers moisture vapour away from the body.

This causes the micro-climate above the skin to become less saturated with vapour, thereby making the wearer less clammy and it's less likely for the vapour to form sweat droplets on the skin's surface.



Merino - a natural fibre



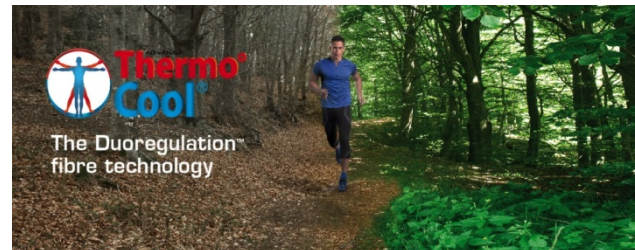
Exploiting Synergies

ADVANSA Thermo° Cool®

Merino goes technical...



Exploiting Synergies

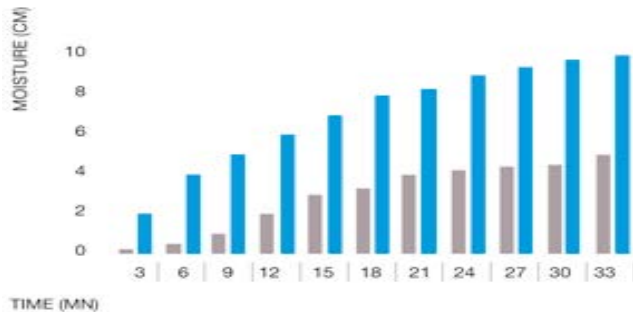


... with ADVANSA
Thermo° Cool®

Exploiting Synergies

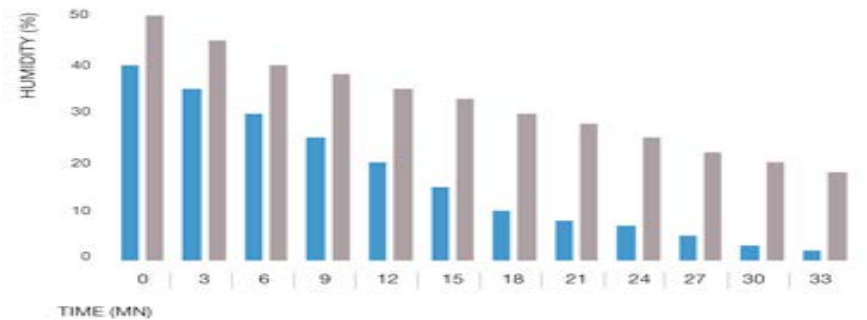
ADVANSA Thermo° Cool®

Wicking performance*



Source ADVANSA

Drying performance*



*Average values



Exploiting Synergies

ADVANSA Thermo° Cool®

The Natural DuoRegulation Choice

The combination with Merino Wool offers the possibilities of light, breathable and exceptionally soft fabrics, which bring together the natural and luxurious gentle touch of wool with the benefits of ADVANSA Thermo° Cool® dual functionality properties, keeping the wearer thermoregulated and providing outstanding comfort.



Wicking and Drying Performance



Natural Luxurious Touch



Odour Control

Exploiting Synergies

ADVANSA Thermo° Cool®

Merino & ADVANSA Thermo° Cool is available for...

- various product categories

- classic circular knitting
- seamless
- socks
- flat knitting

- in a wide count range from NM16 – NM80, single and two-fold yarn

- in different compositions (i.e. 70/30 and 50/50)



Thank you for your attention

