



...the time is now!

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**schoeller**  
the spinning group

# EXP 4.0

## the time is now

### Why EXP 4.0?

Wool is once again undergoing a revival as a natural and sustainable fibre for outdoor wear, knitted garments and functional clothing. Increasingly demanding consumers are interested in knowing under what conditions their clothing is manufactured. They want to know what impact a product has on the environment, on the workers who manufacture it and on them as a customer. Previously an "insider" term, sustainability has now become an important product feature.

EXP stands for "EX-Pollution", or the avoidance of pollutants during the anti-felting treatment process. EXP 4.0 is a revolutionary new process from the Schoeller Spinning Group that enables the wool to remain machine-washable without the use of chlorine. With the EXP 4.0 treatment, also tumbler drying is possible now (Special knitting specifications and own tests are necessary). Schoeller has set a benchmark with this innovation and once again proven its commitment to ecological sustainability.

Schoeller Spinning Group - winner of the Outdoor Gold Award:



What the judges had to say:  
 „The use of wool is becoming increasingly popular. That's why it's so important that our industry does everything in its power to produce wool in as environmentally friendly way as possible. The EXP method makes it possible to produce washable wool without using chlorine in the manufacturing process. That's fantastic!"

### The characteristics of wool



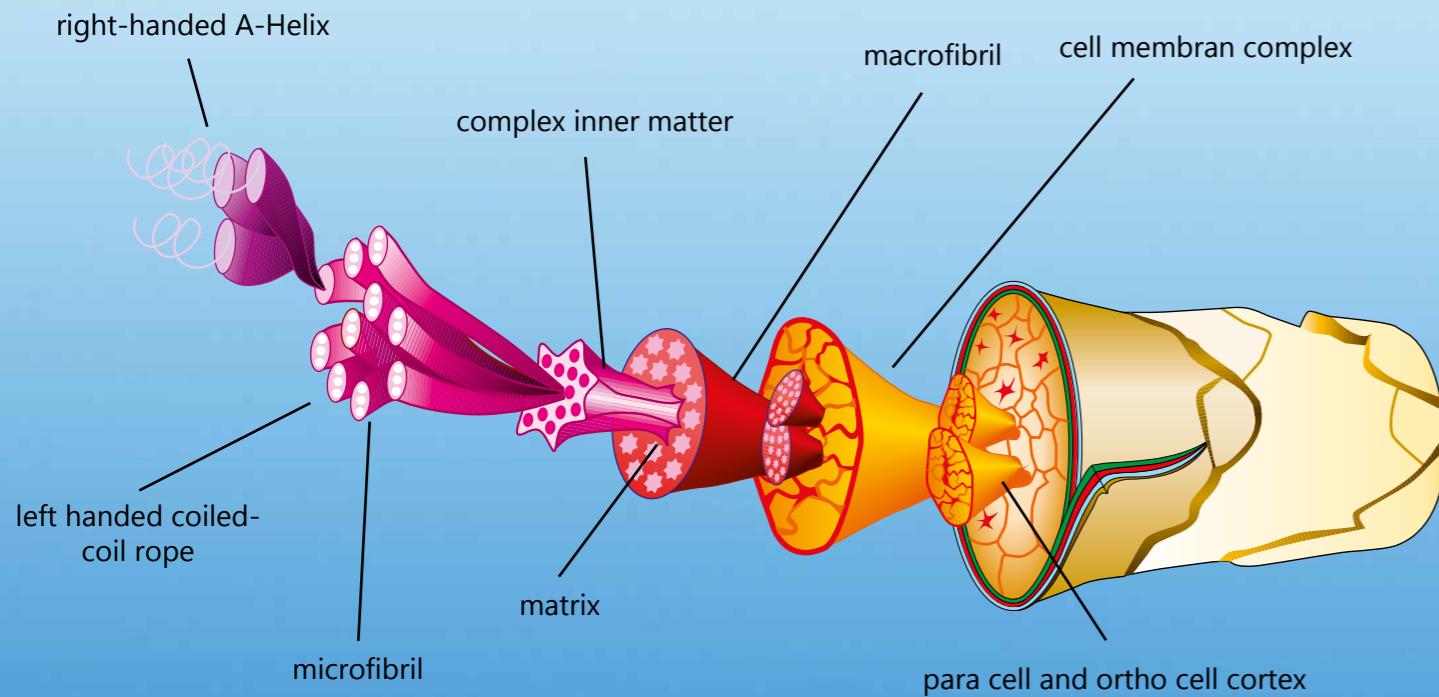
- 100% from nature – a truly sustainable resource
- Machine-washable
- Tumbling possible
- Temperature-regulating (both in warm and cold conditions)
- Moisture-regulating
- Can absorb up to 30% moisture, without feeling wet
- Wool is warm, even when wet
- Low static charge
- Self-cleaning
- Fire-retardant
- Anti-odour
- The characteristics of wool cannot be fully reproduced by using chemically treated fibres

# The revolutionary process at a glance



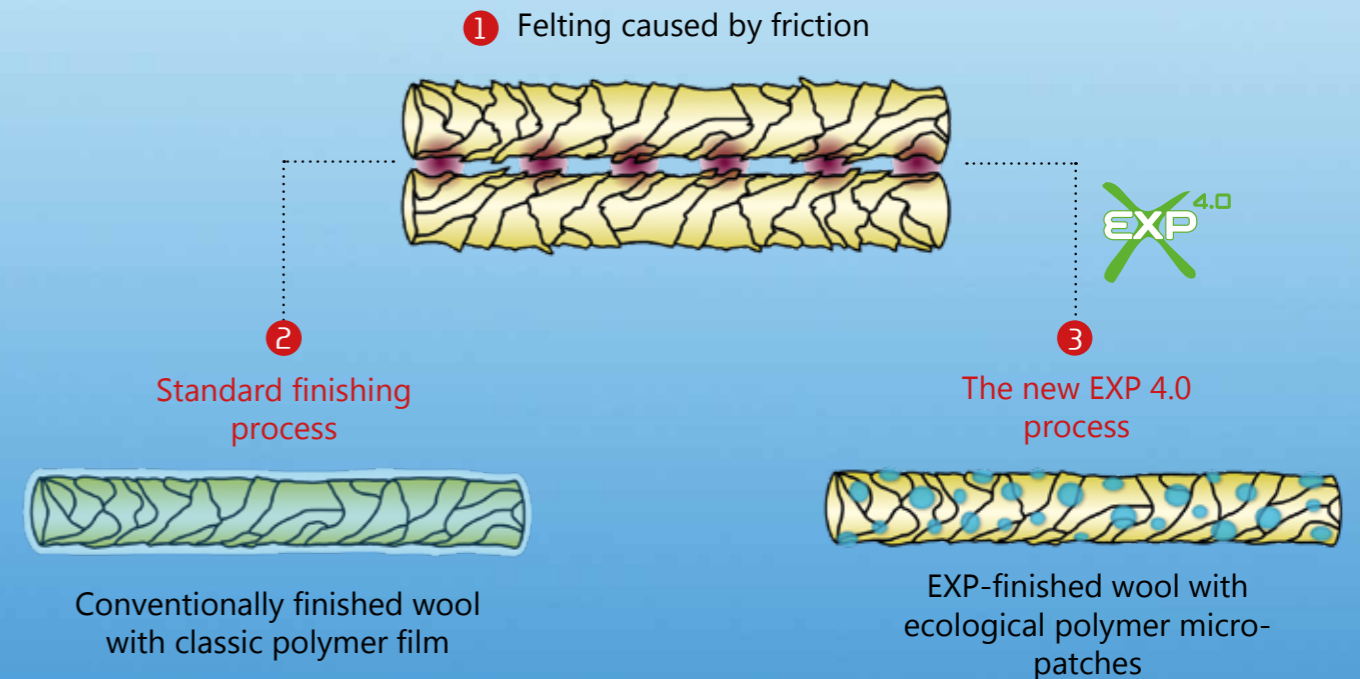
## Wool fibre structure

Wool has a scaly surface, and as its fibres do not sit uniformly, they snag when they contact one another **1**. A warm, humid environment increases this effect and the wool becomes felted. Wool is treated in order to prevent this from happening.



## The process

The conventional process previously used involves smoothing these scales and then coating the chlorinated wool fibres with a wash-resistant film **2**. A substantial amount of AOX pollutant is released during this process. This results in environmental pollution and is directly attributable to the wool fibres. EXP 4.0 completely avoids the use of chlorine and employs natural salts as an oxidization agent. So you could say that EXP 4.0 is a "revWOOLution" **3**.



# Sustainability for the future

bluesign® , G.O.T.S. & Öko-Tex

Schoeller's newly developed EXP 4.0 wool treatment process meets the highest standards. The chlorine-free process uses less resources than conventional processes and is carried out reliably at the company's European manufacturing site, meaning it is a truly all-round sustainable innovation.

EXP 4.0 is the first wool treatment process in the world to meet the strict criteria of the "bluesign®" and "Global Organic Textile (G.O.T.S)" standards, and it also conforms with the "Öko-Tex standard".



*new* With the EXP 4.0 treatment, also tumbler drying is possible. (Total Easy Care)



In addition to these positive and sustainable features, items that are EXP-treated can be machine-washed in the same way as items that have undergone a standard **5 x 5 A superwash**. (TM 31-process).



In contrast to normal anti-felting processes, the EXP process is **chlorine-free**, as it uses non-toxic salts instead.



The EXP treatment **saves** a great deal of **water**. Up to 50% less water is required compared to conventional treatments.



The EXP treatment requires **far fewer chemicals** than other treatments, and the chemicals used are of a much higher quality.



The EXP treatment yields **very good pilling results** and is in no way inferior to other treatments.



In contrast to conventional treatment processes, with EXP, **no AOX** (adsorbable organically bound halogens) pollutants are released.



Natural Merino, sustainable



For more information visit:  
**[www.schoeller-wool.com](http://www.schoeller-wool.com)**

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