

Care and washing recommendations for wool or wool/silk products

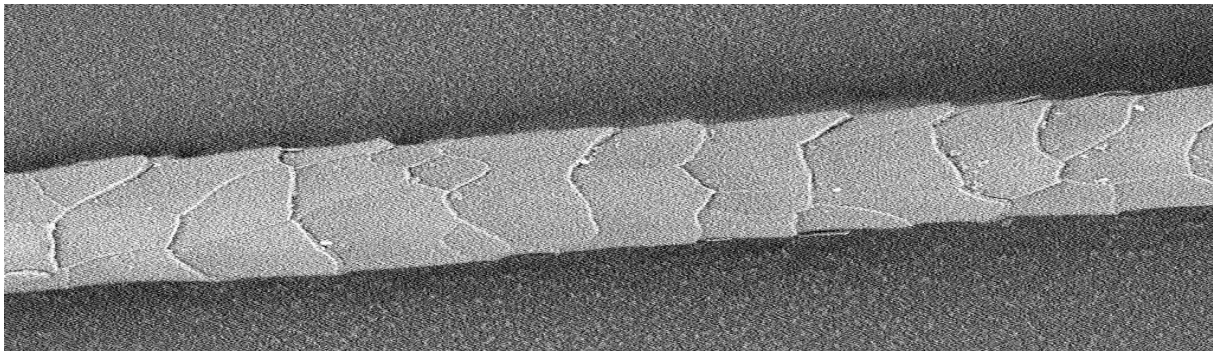
Some information on the characteristics of wool for a better understanding of the facts:

Structure:

The spiral-shaped wool fibres have scales which point in the same direction on the live sheep. After shearing, the wool fibres fall in various directions so that their scales run opposite.

Various influential factors cause these scales to interlock in such a way that they can no longer be parted to return to their original positions. On account of this special structure, wool reacts very sensitively to mechanical influences, especially when damp.

Incorrect methods of treatment not only include rubbing and wringing wool garments, but also too high and fluctuating washing temperatures which cause wool to felt, i.e. become thicker and stronger – and clothes to shrink. If the wool is soaked in detergent solution, the fibres swell and the wool is more susceptible to felting. Do not therefore leave the wool soaking in water for too long. The warmer the washing temperature, the faster the felting disposition. Strong pressure when wringing out or spinning makes felting inevitable.



Source: RRI Reutlingen Research Institute

Washing temperature:

It is not the movements in the detergent solution (hand wash or machine wash) which are so damaging but rather the process of spinning and/or wringing which leads to interlocking by the wool as described above, especially when it has been washed too hot **and** the wash cycle lasts too long. Then the wool has sufficient time to swell which facilitates felting. Washing water and rinsing water should have the same temperature as a so-called cold shock also causes the wool to felt. Wool is often washed too hot even when hand washing. Temperatures of 30 °C to 40 °C are recommended.

Detergent:

Wool comprises protein fibres. Proteins are sensitive to heat and are destroyed at high temperatures. Protein fibres can be damaged by enzymes such as those present in most conventional detergents. Various detergent enzymes decompose pollutants (protein, grease, starch etc.) by separating them from the fibres enabling them to be washed out at a later stage. Proteases are a type of enzyme which are most effective at approx. 60 °C; at approx. 30 °C, they are only 5-10% effective. This fact also speaks for a lukewarm washing temperature. Proteases are particularly unsuitable for natural fibres such as wool or silk as the latter are attacked by the proteases. Wool detergent, on the other hand, has a neutral pH value (7 or less in the acidic range) and does not contain the protein-splitting enzyme protease. Wool detergent develops a foam pad enabling the wool to be washed gently.

To put it in a nutshell:

Brief, superficial turning and gentle squeezing in plenty of not-too-hot water with special wool detergent which is suitable for wool followed by rinsing in water of the same temperature or in the wool/hand-wash cycle of the washing machine keeps the wool soft, elastic and absorbent. Use the wool or hand-wash cycle if **indicated on the care label sewn into the garment**.

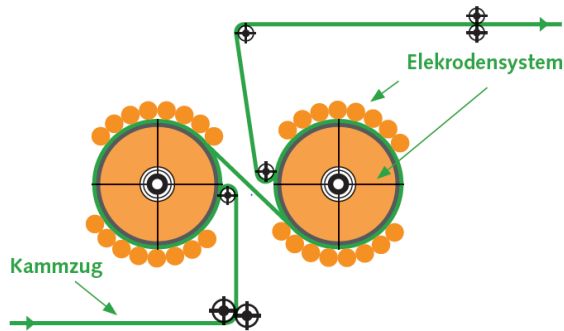
Drying:

Please do not put in the tumble drier or on radiators as this will make the wool hard, brittle and felted. We recommend squeezing the products in a towel after rinsing, pulling them into shape while wet and drying them flat.



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FEATURES

- AOX-free
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- Natural feel
- Consistent yarn characteristics in terms of yarn strength and elasticity
- Certifiable to GOTS and IVN Best

ADVANTAGES

- Optimised CO₂ balance
- No chlorine – no resin
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- Reduced energy consumption compared to conventional Hercosett process

TECHNICAL PROPERTIES

- No chemicals used throughout the entire finishing process
- Finishing involves electric charging under atmospheric pressure (comparable with lightning discharging during a storm)

All wool products of ENGEL have a care label that provides information on handwashing or machine washability. If the items are finished they can be machine-washed at 40 °C using wool detergent.

Nevertheless, more gentle care and washing should be taken into account along with the many advantages of natural fibres compared to clothing subject to high chemical refining or even synthetic fibres.

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