

# Merino

## Fact Sheet



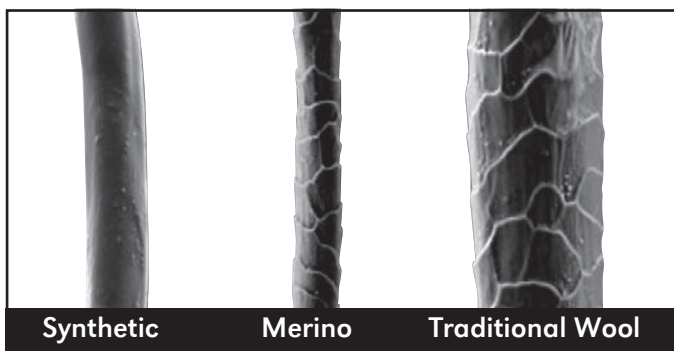
### What's so special about Merino?

#### The Merino Fibre

Merino wool, or fibre, is internationally sought after due to its natural attributes - that keep us looking good while still being comfortable - warm in winter and cool in summer.

#### Micron

Wool fibre diameter is measured in microns, with one micron equal to one millionth of a metre. The Micro measurement of the wool will influence its end-use as the smaller the micron, the finer the wool. Finer wool - such as Merino - is generally reserved for apparel and fine suiting, while coarser wool (sometimes described as "strong" wool) typically goes into carpet, upholstery and chunkier knits or textiles.



#### Long-lasting

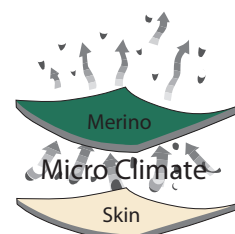
Merino fibre is long and strong, which increases a garment's durability and ability to remain smooth and soft. The longer fibre also means it is less likely to pill. Merino fibre, like human skin and hair, is largely made from Keratin - a natural protein, which is very resilient.

#### Moisture Management

Merino fibres have a complex structure with a hydrophilic (water holding) interior, known as the cortex, and a hydrophobic (water repelling) exterior, known as the cuticle. As a result, Merino fibres have the unique ability to both absorb and repel moisture.

This means that Merino garments can offer shower or rain resistance - a Merino garment can hold up to 30% of its own weight in water without feeling damp. It also means that a Merino garment

*Moisture Evaporation*



will absorb vapour from your skin when you sweat, increasing the time before the sweat condenses to a liquid form and avoiding the uncomfortable clammy feeling often associated with wearing synthetic fabrics on a warm day, or when you are exercising.

#### Renewable, Natural, Ethical

Merino is a renewable, natural product. It is hard wearing, yet biodegradable. Merino farming systems have evolved to protect the welfare of the animal, preserve the environment for future generations and produce the highest quality fine white fibre.

The average sheep produces seven fleeces in its lifetime - that's enough for about 35 garments!



#### Insulation

Air is a poor conductor of heat. The more air that is trapped in a fabric structure, the more warmth it will offer to the wearer. The natural crimp (wave) and resilience of Merino fibres make Merino garments warm and comfortable to wear.

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#### Softness/Comfort

Prickle and itch associated with traditional wool is the result of coarse fibres pushing into the skin, irritating nerves close to the skin's surface; this does not occur with high quality Merino - the ultra fine fibres simply bend when pressed into the skin.



#### Fire Safety

Wool is naturally flame-retardant and self-extinguishing, that is, it puts itself out. This is why wool is used in many areas where flammability is a safety issue, for example, aircraft upholstery and carpets. Additionally, it does not melt as many synthetic fibres do when they catch alight.

#### Easy Care

Merino's moisture absorbing characteristics provide excellent wrinkle recovery, especially through the application of steam, an excellent easy care feature when travelling. Merino's natural resilience (it can be bent 30,000 times without danger of breaking or damage) gives it outstanding wrinkle recovery.

#### Thermal Control/Natural Aircon

Merino buffers the body's microclimate in changing conditions to maintain comfort through natural air conditioning. Merino is constantly seeking to achieve equilibrium between the external environment or climatic conditions, and the internal environment adjacent to the wearer by absorbing and releasing moisture.

As Merino absorbs moisture, the fibres release a small but perceptible amount of heat. This heat is known as 'heat of sorption' and is generated through a chemical reaction that occurs when the water vapour interacts with the chemical structure of the Merino fibre. This acts to prevent the chilling of the wearer in wet, cool conditions.

#### Odour Control

Merino garments are ideal for active sportspeople due to their ability to minimise build-up of odour in comparison to synthetic fabrics.



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