

WOOL — THE FIBRE



Wool is a natural, biodegradable and renewable fibre produced by sheep.

Australian woolgrowers produce the world's finest wool from a breed of sheep called **Merino**.

Merino wool is renowned for being very fine and very soft.

Fashion designers love this unique fibre for its quality and versatility — nothing else feels like **Merino** wool, looks like **Merino** wool, or wears like **Merino** wool.

Wool boasts a superior range of natural qualities that extend far beyond its softness.

Wool:

- benefits from natural breathability
- keeps you warm in winter, yet cool in summer
- drapes beautifully and resists creasing
- shrugs off stains and keeps its colour when washed
- benefits from natural anti-static and anti-odour properties.

While synthetic fibres are made from non-renewable oil, wool is an entirely renewable natural resource. It's not only soft against the skin but also gentle on the planet.

Types of wool

Not all wool is the same — although for processing purposes, it can be divided into three broad categories based on the diameter of each fibre (**micron**).

Diameter is measured in **microns**, which are equal to one millionth of a metre. Fibre length is recorded in millimetres.

Fibre diameter and length are the main measurements that determine the quality and use of wool.

FINE: Wool with the finest **micron** comes from **Merino** sheep and is used for high-quality, soft-handling fabrics and knitting

yarns. Fine wool is highly valued by the world's leading fashion houses.

MEDIUM: Medium **micron** wool can be produced from a type of **Merino** or produced by crossing one breed with another (**crossbreeding**). Medium wools are used in a variety of woven apparel cloths, knitting **yarns** and furnishings.

BROAD: Many different sheep breeds produce broader wools. Often these breeds are known as dual-purpose breeds because they are farmed with equal emphasis on meat and wool. Broad wool is useful for products such as carpets because of its strength and durability.



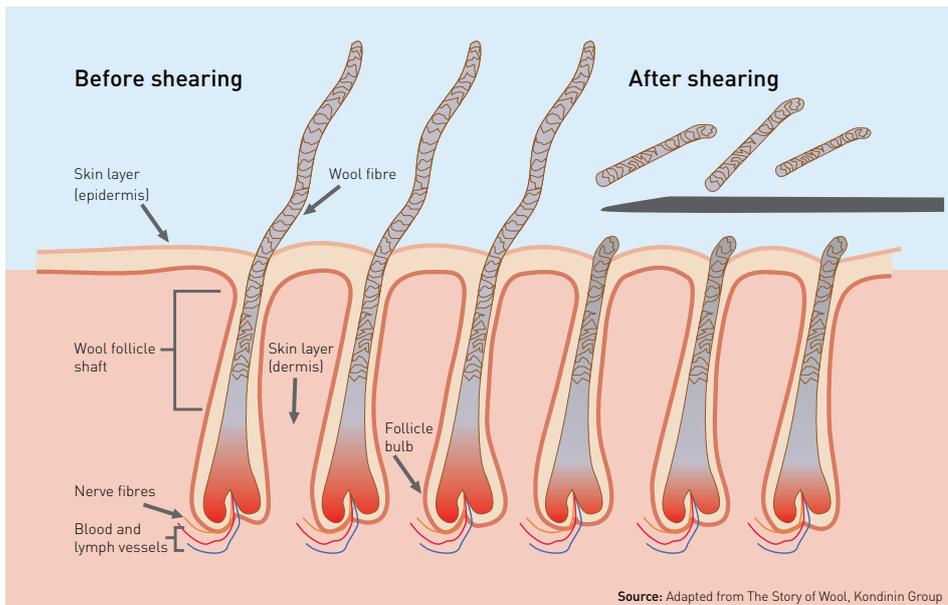
Fast facts

- Wool is a natural, renewable and recyclable fibre produced by Australian **Merino** sheep.
- **Merino** wool has properties that make it comfortable, easy-care and long-wearing.
- Australian woolgrowers produce the world's finest wool from **Merino** sheep using sustainable farming practices.

Merino wool micron grades

Micron	Grade
14.5 and finer	Extrafine
14.6 – 16.5	Ultrafine
16.6 – 18.5	Superfine
18.6 – 20.5	Fine
20.6 – 22.5	Medium
>22.6	Broad

Best in the world: Australian **Merino** wool is regarded by many as the finest and softest wool produced anywhere in the world. Australia produces 90% of the world's fine apparel wool.



Source: Adapted from The Story of Wool, Kondinin Group

How wool fibres grow

The wool staple

Wool fibres grow out of the skin follicles in tufts (**staples**) on the sheep's back.

As wool grows in the follicle it is covered with natural grease and **suint**, which are removed during processing. The natural grease can be recovered to produce **lanolin**.

The fibres in each staple grow in crimps — a distinct wave pattern. The finer the wool; the more obvious the crimp.

When the crimped fibres are combined in a yarn, air is trapped between them, providing an effective insulating layer.

The wool fibre

Each wool fibre is made up of protein with a small amount of fat, calcium and sodium.

The surface of each fibre is covered in scales, which are important in making felts and traditional woollen cloths.

Machine-washable, shrink-resistant wool is produced by masking or partially removing the scales to reduce the felting properties of the wool fibre.

More information

For more information about wool, go to:

- learnaboutwool.com
- Beyond the Bale: beyondthebale.wool.com

Glossary

Crossbreeding — mating a sheep of one breed with a sheep of another breed to get offspring with the characteristics of both breeds.

Lanolin — a natural grease, which covers the wool fibre, often used in cosmetics.

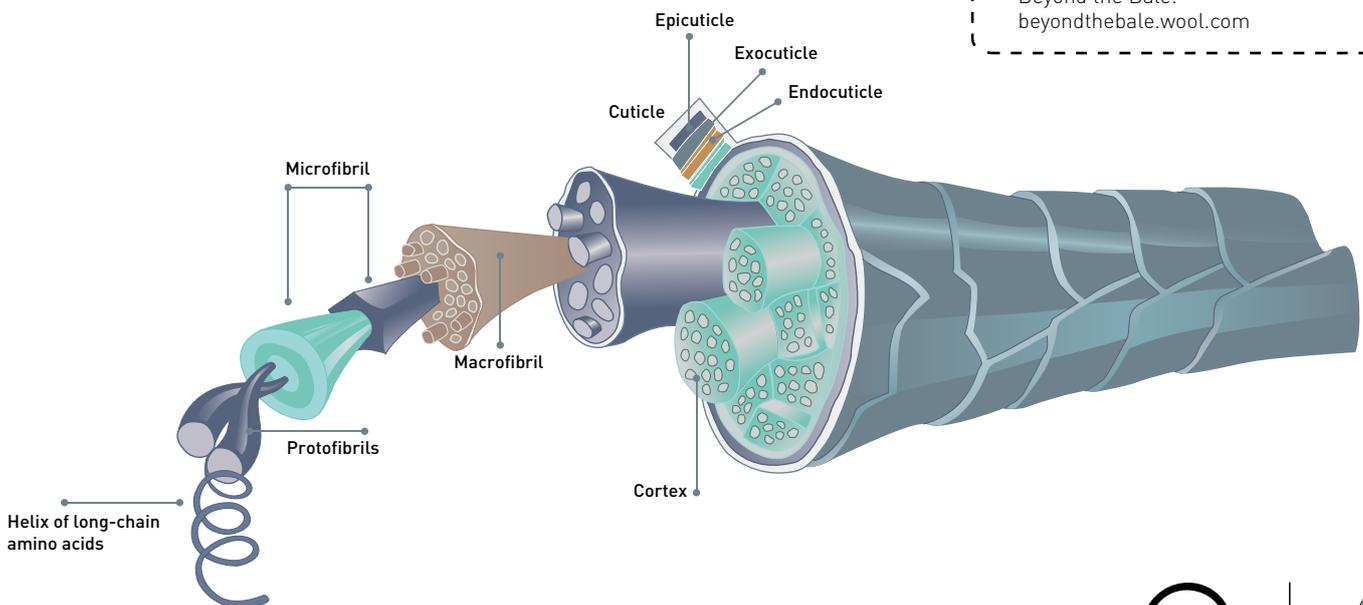
Merino — a type of sheep bred specifically to produce high-quality wool.

Micron — a millionth of a metre and the unit of measurement used to describe wool fibre diameter.

Staple — a group of wool fibres.

Suint — a natural grease found on sheep formed by dried perspiration.

Yarn — wool that has been processed and is ready for knitting or weaving.



Structure of a wool fibre

