Wool is a versatile natural fibre, which can be made into a wide range of fabrics with many different uses.

Depending on the length and fibre diameter (fineness) of a fleece, wool is processed through either the woollen or worsted processing system.

After processing, woollen yarn can be either woven or knitted to produce fabric ready to be made into a garment or upholstery item (for example, curtains or furniture coverings).

Woven and knitted fabrics have unique properties that make them suitable to different end products.

Knitted fabrics tend to stretch more than woven fabrics, making them more suitable for garments such as T-shirts, active-wear and baby wear. Woven fabrics are often used to produce more formal garments such as suiting or tailored jackets.

Worstedspun woven fabrics

The worsted processing system uses the highest-quality fleeces to produce very fine yarns which can be woven to make extremely smooth, light-weight and expensive fabrics.

These luxury fabrics are used by fine tailors around the world for clothes such as business suits, trousers and skirts.

Worstedspun woven fabrics are ideal to wear in warm weather or indoors, where they keep you cool and comfortable.

Worsted-spun knitted fabrics

Fine worsted-spun yarns produce super-soft knitted fabrics with a very smooth surface appearance and texture, and a clear definition of the knitted stitches.

These fabrics are incredibly versatile — they are used for baby clothes, underwear, t-shirts and sportwear, leggings, dresses and other light-weight knitwear.

Worstedspun knitted fabrics

Worsted-spun knitted fabrics are ideal for wearing every day — they are soft and comfortable, great for travelling, light-weight and don't need ironing!

Did you know?

• An innovative dyeing process can be applied to Merino fabrics to give them a 'vintage' look, without the common issues of loss of colour fastness experienced by other fabrics.

Worstedspun woven: tailors around the world pay premium prices for Australian Merino worsted-spun fabrics, which are made into high-end business suits.

Worsted-spun knitted: fine Merino wool is ideal for next-to-skin garments such as babywear, because it is super-soft and comfortable.

Fast facts

• Wool is a versatile natural fibre that can be used to make garments as diverse as business suits, knitted jumper, sportswear or babywear.

• Fine Merino wool produces light-weight woven or knitted fabrics that are easy-care, soft touch, cool and comfortable.

• Innovative technologies can be introduced during processing to produce fabrics with specialist features for specific end uses.
Woollen-spun knitted fabrics

Knitted fabrics made from fleeces that have been processed through the woollen system also are generally heavier and bulkier than worsted-spun knitted fabrics. These types of knitwear fabrics are characterised by having a slightly raised and fuzzy surface appearance.

Woollen-spun knitted fabrics make great soft, warm jumpers, scarves, beanies, socks and cardigans ideal for keeping you warm in cooler weather.

Glossary

Fibre diameter — the thickness of a single wool fibre.
Fleece — the wool that covers the body of a sheep, usually removed by shearing.
Micron — a millionth of a metre and the unit of measurement used to describe wool fibre diameter.
Natural fibre — a fibre sourced from a plant or animal, not manufactured in laboratories (synthetic fibre).
Scoured wool — greasy (raw) wool that has been cleaned to remove any dirt, lanolin (grease) and vegetable matter (plant material).
Woollen processing — uses shorter fibres, less stages and produces a thicker yarn than worsted processing.
Worsted processing — uses longer fibres, more stages and produces a finer, high-quality yarn than woollen processing.
Yarn — fibres of wool twisted together to form a rope-like thread ready for knitting or weaving.

Wool innovations

Mercerised Merino

Mercerisation involves applying a chemical to the wool before spinning to remove the scale structure from the surface of the wool fibre.

A very fine layer of silicone polymer is then grafted onto the fibres’ surface.

While the micron stays the same, the fabric feels as if it is made using wool 2–3 microns finer and has a greater sheen.

The process also improves the drape, fluidity and comfort especially in next to skin products.

Merino fresh

A Merino Fresh suit is treated with a polyurethane polymer to enhance smooth drying. Merino Fresh suits can be hung in the shower for cleaning and do not need to be dry cleaned like traditional suits.

UV control Merino

A UV absorbing finish is applied during dyeing or bleaching at either yarn or fabric stage or during garment finishing. The finish can also be applied after dyeing.

The finish is fixed by drying at a high temperature.

UV control Merino fabrics can increase the Sun Protection Factor (SPF) by up to 20UPF units.

Total Easy Care Merino

Like mercerisation, the Total Easy Care technology involves treating the wool with a chemical and later applying a polymer, which swells during washing and masks the scale edges responsible for felting.

For fine gauge knitted garments, which are generally made from worsted-spun yarns, the Total Easy Care treatment is often applied before spinning.

For woollen-spun products, such as lambswool sweaters, the treatment is normally applied to the knitted garment during the final wet-finishing process.

More information

To find out more about wool fabrics take a look at:
- Beyond the Bale: beyondthebale.wool.com
- The Workboot Series: The Story of Wool
- www.woolmark.com/innovations
- www.woolmark.com/learn-about-wool/about-the-fibre
- The Woolmark Company YouTube channel: www.youtube.com./WoolmarkOnline
- The posters, fabric samples and the USB that came with the LEARN ABOUT WOOL kit.