

Wool: the natural performance fibre

camira

There are lots of wonderful things about wool.

It's Mother Nature's wonder fibre for textiles – a natural evolution which is ultra intelligent, highly complex, supremely technical, rapidly renewable and environmentally sustainable.

Wool is the ultimate performance fibre, with multiple smart abilities which are unmatched by man-made synthetics. It has evolved from nature over millions of years, designed to provide all-weather protection for sheep, and giving us the most versatile textile raw material imaginable which we can spin into yarn, weave into fabric and upholster onto furniture in the widest array of contract interiors – from offices to hotels, from shops to schools, and of course from underground metro systems to high speed intercity trains.



Wool is:

Wool fabrics - Made by Camira.



Wool is safe

- Flame resistant
- Low smoke toxicity
- Static electricity reduction

Wool is healthy

- Breathable
- Humidity control
- Clean air purifier
- Acoustic

Wool is natural

- Renewable
- Sustainable
- Biodegradable
- Low carbon impact
- Energy efficient

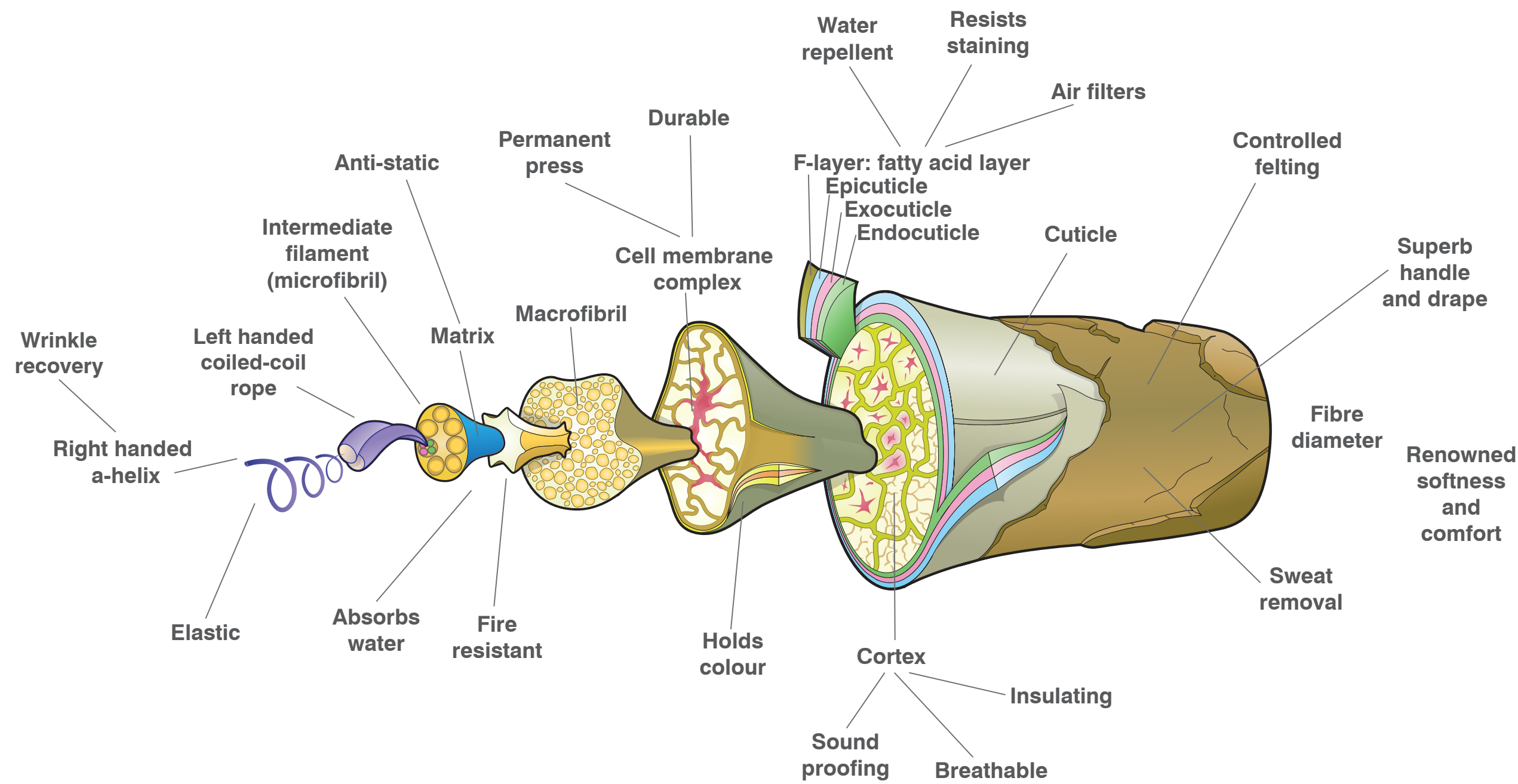
Wool is durable

- Long lasting appearance retention
- Resistance to staining and soiling
- Power of recovery



Yoredale

Wool Properties



Natural and environmental characteristics



- Wool – naturally**
- Wool grows naturally on sheep which graze freely - on land which is unsuitable for arable crops - and feed on grass and water.
 - Camira use British Wool from cross-bred hill sheep which is collected by the British Wool Marketing Board.
 - Sheep are part of the natural landscape, from the Cotswolds to Cumbria, from the Yorkshire Dales to Northumbria.
 - New born lambs are one of the most welcome sights and sounds of springtime.

Renewable and sustainable

- The supply of wool is only limited by the number of sheep.
- They re-grow their fleece every year, so can be shorn every 9 – 12 months, making wool rapidly renewable and sustainable.
- As long as there is grass to eat, water to drink and air to breathe, sheep will continue to grow wool – in contrast to polyester which requires oil to be mined and refineries to process it even before its conversion into textile fibre.



Blazer



Monochrome Sett



From the ends of the earth to our own backyard

Our main wool sources are New Zealand and Great Britain. New Zealand is renowned for its clean, green, and unpolluted environment, where animal welfare, biosecurity, provenance, and traceability are second to none. The wool is naturally bright and white, with fleeces that are softer and whiter than their British counterparts. Flock sizes typically range from 3,000 to 5,000 sheep, providing the high-volume supply we need. We use fine lambswool, shorn for the first time, to produce softer fibres, yarns, and fabrics.

Closer to home, British wool is used in collections such as Yoredale and our public transport ranges. It's ideal for lower-volume fabrics with distinctive texture and character, where we can cleverly enhance — or conceal — the black hairs found in native breeds. With an average flock size of around 300 sheep, British wool brings us rich bulk and natural variation for more tactile textiles.

Biodegradable

- Wool is made from keratin, a natural protein compatible with human biology which makes up hair, nails and skin. In its pure form it will decompose completely and go back to earth, fulfilling optimum life-cycle benefits.
- Wool is high in nitrogen and has been used in fibre form as a slow release fertiliser on arable land.
- At the end of its life, if buried in soil or kept warm and wet, wool will compost completely and release valuable nutrients.



Wool fabrics - Made by Camira.

Durable wool – looks good for longer

Long lasting appearance

Wool comes with its own armour-like protective shield, with its outer scales giving natural protection against dust, dirt and spills. This hydrophobic capacity allows liquid spills to bead up and remain on the surface, for quicker clean up and helping to keep wool stain free. Just think how a wool jumper virtually looks after itself, while cotton or polyester needs machine washing.

Power of recovery

The natural crimp and coil of wool fibre means that it behaves like a spring, with an ability to bounce back. The spongy cell structure resists flattening, springing back to its original state, making it resistant to crushing and matting.

Dyes beautifully

The inner cell structure means that wool takes and retains the dye in the centre of the fibre, allowing it to hold and maintain complex colouration with deep saturation. And of course the colour of dyed wool is fast to both light, water and rubbing, meaning it won't fade or rub off.

Upholsters beautifully

The natural in-built stretch of wool means that it can flex and mould to the curves and contours of furniture, becoming a very extension of the seat. It can be flexed and bent more than 20,000 times without breaking. Polyester by contrast is more inert, so can be more difficult to upholster and may be prone to bagging.



Safe wool

Flame retardant

Wool is considered one of the safest fibres, as it naturally resists flaming. This is due to its high water and nitrogen content which does not respond well to ignition and combustion. When wool burns it forms a natural char which acts as a barrier to the flame which in turn spreads slowly and will self-extinguish.

Low smoke toxicity and density

So it's difficult to ignite, and burns and spreads slowly, but in doing so doesn't emit noxious fumes or create dense smoke. So the benefit is that the passenger is less likely to suffocate and can evacuate more easily.



Healthy wool



Sumi

Improved air quality

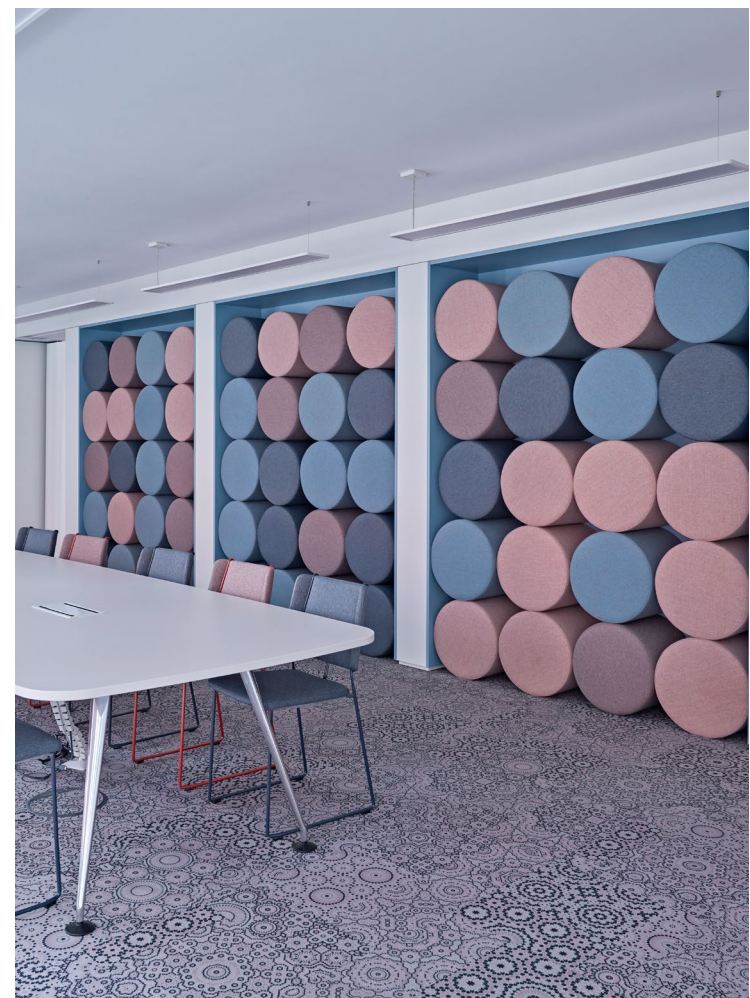
Imagine a material that actually absorbs harmful emissions to make the air that we breathe cleaner and purer. Wool does just that by absorbing contaminants irreversibly into its structure. Its complex make-up means that it can bind pollutant gases, including formaldehyde, sulphur dioxide and nitrogen dioxide, and lock them in without re-releasing them.

Thermo-regulator

Wool is the perfect fibre for all climates and all seasons, providing a personal air-conditioning system, so that when it's hot, wool is not! It's a feel-good, breathable fibre which is able to absorb up to 35% of its own weight in moisture thanks to its hydrophilic core. This is then naturally released as water vapour to provide total user comfort.

Quiet comfort

Wool has acoustic properties, with its dense sponge-like cortex soaking up sound waves and dampening both high and low frequency sound, especially in conjunction with upholstery foams, to help provide a quieter interior environment.





Comparison of fibre properties

Characteristic	Wool	Polyester
Environmental	Natural / renewable	Petro-chemical / finite
Appearance retention	Repels dust and dirt, naturally stain repellent	Attracts dust and dirt due to static charge, stains remain on the fabric surface
Flex and recovery	Retains shape / springs back to life	Prone to flattening / bagging
Flammability	Resists flaming / chars	Melts away / flaming droplets
Smart properties	Temperature and moisture regulator	Dynamically inert
Health and well-being	Air purifier	
Acoustics	Acoustically absorbent	Acoustically transparent



Wool fabrics made by Camira

Wool accounts for less than 1% of global textile production — yet it’s at the heart of what we do. From classic wool felts like Blazer and Synergy, to luxuriously smooth worsteds such as Penta and Sumi, and our extensive portfolio of intimate wool-plant blends, including Main Line Flax, Monochrome Sett, and ReSKU 2.0.

From farm to fabric — and every textile process in between — we spin, weave, dye and finish. Wool made wonderful.

Wool Upholstery Care and Maintenance

Wool does a great job of looking after itself, but its appearance and continued high performance throughout its lifecycle can be further safeguarded by implementing an appropriate cleaning and maintenance regime from installation onwards. Wool fabrics - and in particular wool pile fabrics - have the ability to conceal soiling, which means that they can appear clean when in fact they are not. This should not result in delayed cleaning and maintenance, because when they eventually appear dirty they can actually be hiding very high levels of soiling.



Snug

To avoid premature fabric replacement we recommend the following preventive measures as part of a comprehensive maintenance programme:

Effective Vacuuming

This is a vital element in any maintenance programme to reduce fibre abrasion and wear. Upholstery fabrics should be vacuumed frequently to prevent the unsightly build-up of dry soiling in the form of dirt, dust and grit. Using a vacuum cleaner agitates the fibres, removes dry soiling and enhances fabric appearance. Vacuum cleaners fitted with a brush attachment to agitate the fibres and loosen soiling are more effective than vacuums that rely on suction only.

Regular Spot Removal

Spots and spills usually form 5-10% of soiling, with drink and food spills being the most common. Failure to remove unsightly marks on a regular basis increases the chance of permanent staining leading to a decline in appearance.

Periodic Cleaning

The required frequency for appearance retention will depend on the exact type of upholstery, as well as its colour and frequency of use. To allow upholstery to soil excessively before cleaning can lead to a permanent unsightly appearance or the requirement for it to be replaced prematurely.

Dry Extraction Cleaning

This is a very effective method of deep cleaning. A cleaning compound containing absorbent particles and emulsifiers is brushed into the fabric where it absorbs the dirt encapsulating it in small particles which then can be removed by vacuuming. The process minimises disruption as it requires no drying time and enables upholstery to return to use immediately. This system enables fabrics to be cleaned as often as required without damage or potential for rapid re-soiling.

Water/Foam Extraction

This involves loosening dirt from the fabric and extracting it suspended in liquid by suction. We would recommend machines that are capable of producing at least 20kgs/cm² pressure with a dual vacuum extraction system to enable maximum liquid recovery and minimum drying time.



Main Line Flax

