Professional risk takers and extreme sport athletes choose wool clothes to help them withstand extreme environmental conditions and protect them from exposure to severe situations.

Wool’s natural properties offer

**Thermo and Moisture Management**
- Wool fibres create a microclimate for the body that can quickly adapt to changing situations
- Wool clothing can retain or release heat and moisture allowing the body to remain comfortable whether conditions are hot, cold, dry or wet 1,6

**Odour Management**
- By absorbing moisture, wool reduces the amount of sweat on the body
- Less sweat on skin means less body odour
- Wool locks in odour compounds resulting in less smell coming from the garment 2,8

**Resilience**
- Wool fibres can bend 20,000 times without breaking
- A wool fibre can stretch to more than 30% if its length and then return to its original shape 3

**Wool – A High Performance Fibre**

Author: Dr Paul Swan
There is no doing laundry in space. Odour resistance makes wool fabric a natural choice for personnel of the International Space Station. The high oxygen levels on a space station make flame resistance important too – as does a lack of lint, which can clog up sensitive machinery.\(^6,7\)

**Flame Resistance**

- Wool is high in nitrogen and water making it naturally flame resistant
- Even exposed to heat above 570°C, wool won’t melt onto the skin
- Wool emits less smoke and toxic gas than other fibres
- When exposed to fire wool can self-extinguish, preventing the spread of flame\(^5,9\)

**UV Protection**

- Wool offers natural UV protection by absorbing radiation throughout the UV spectrum
- Wool fabrics have a UV protection factor of 30+\(^5\)

**Anti-Static**

- Wool retains moisture, making it less prone to building up a static electric charge
- This is an important factor in the operation of electrical equipment
- It is also one of the reasons that makes wool fabric a top choice for space travel\(^1,7\)

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3. Wood, E., 2009, Tangling with wool, A resource book of information and activities about wool and textiles, AgResearch