

## WOOL

Wool is an animal fiber from goats such as sheep, but also from camel animals such as llama and alpaca that is obtained from shearing. It is a very thick fiber but it is also elastic, which makes it retain heat very well and is used as a thermal insulator. Resistance is one of its properties since it allows it to be stretched to a great extent before breaking and recovering its original shape when stretching has ceased. It absorbs moisture and repels aqueous liquids on the surface due to the impermeability provided by a very thin layer of waxy material on the surface of the fiber. In addition, it traps water and air within its fibers, making it warmer in winter and cooler in summer. Wool is one of the materials that is most used to avoid the cold due to its enormous capacity for thermal insulation. This property is due to the fact that its fibers, by not compacting, create an air space that works as an insulator. These fibers allow, on their internal side, to absorb up to a third of their weight in water. In hot and dry conditions, wool does the



opposite process, it loses retained water vapor from the environment and absorbs body heat, thus producing a feeling of freshness. Wool, therefore, is a fiber that has opposite properties, something very difficult to find in other fibers. It also burns slowly and the flame is self-extinguishing. Its high resistance allows the fiber to be flexible, elastic and with great elongation.

## FIBER PROPERTIES

- High resistance
- Waterproof
- Elasticity
- Thermal insulation

- Moisture and heat absorption
- Fire retardant
- Cool



High resistance



Waterproof



Elasticity



Thermal insulation



Moisture and heat absorption



Fire retardant



Cool

