

## Linen, a 100% renewable natural resource

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Linen is made from the natural flax plant.

The history of linen goes back to ancient Egypt where Cleopatra dressed in linen and mummies were wrapped in linen burial cloths. In the 15th century Venetian artists first started to paint on linen and thereafter it became the principal stable substrate for all the great schools of European Painting.

Linen is the strongest natural textile fibre known to man. Linen, is able to absorb up to 20% of its own weight in moisture and therefore has excellent anti-static properties and will not attract dust.

The best growing conditions for flax can be found in Europe where the cool, damp regions of northern France, Belgium and The Netherlands provide a perfect environment. There, the flax plant grows well without irrigation and uses very little, if any, fertilizer. After harvest, nothing of the flax plant is wasted and flax farming does not damage the environment.

Flax plants are harvested once they reach the length of one metre. This is done by pulling the whole plant from the soil to ensure that the longest possible fibres are preserved.

Once the plants have been pulled from the soil they are left in the field to allow retting to take place. Retting is a process whereby exposure to sun, dew and rain allows the fibrous external skin to loosen from the central woody core of the plant.

After retting, the flax is scutched - a mechanical process that removes the flax fibres from the woody core - and then the fibres are ready for combing. Combing transforms the fibres into soft, lustrous ribbons, similar to ash blond hair, and prepares the fibres for the next process, spinning.

The longest fibres are "wet spun" and are categorised by being allocated a high yarn number. By contrast, the shorter fibres are "dry spun" and are allocated a low yarn number. The metric number (Mn) corresponds to the number of kilometres of yarn that can be produced by one kilo of fibre. Consequently, the higher the number, the thinner, and finer, the yarn.

Thereafter, the yarn is bleached, dyed and beamed on a warp beam (a warp is the vertical yarn within a woven fabric). The beam is then attached to a loom and weaving takes place with the horizontal weft yarn inserted between the warp yarns.

Different looms can produce 3 different forms of weaving. Fabric can either be "plain or flat woven", "dobby" for producing small patterns, or "jacquard" woven, a process generally associated with the production of larger scale designs.

Production process of a basic linen, such as Golden flax:

