



Dibella Textile knowledge

Yarn gauge

The quality of a fabric begins with the selection of a high-quality raw fibre. These are spun into yarn in the ring spinning mill.

In general, the staple length is the most important and best known factor in quality. A high-quality cotton fibre has a staple length of approx. 27 - 34 mm and thus forms the basis for an even and tear-resistant thread. With polyester it is easier, here the fibre length is specified by machine - with Dibella products usually 38 mm.

In the spinning mill, the fibres go through an elaborate process in which they are processed into high-quality yarn:

1. Different cotton qualities are usually placed in the bale mixer in order to achieve the desired properties of the yarn.



2. The pressed cotton bales are picked apart by a machine and the fibre lumps are loosened into loose fibres for further processing.

3. In good spinning mills, the first impurities in the cotton are already sorted out here using cameras and compressed air.

4. In a mixing chamber, the different fibres are homogenised or mixed with other fibres (such as polyester).

4. Now the loose fibres are parallelised and stretched (carded) into the first coarse ribbons, the so-called carding.

5. Subsequently, several card slivers are brought together and stretched several times or evened out further, as required.

6. For particularly high-quality yarns, the cards are also fed through a combing machine. Here, shorter fibre parts are com-



bed out, other smaller impurities are removed and the fibres are combed extremely evenly together. These combed cards are then suitable for particularly fine and shiny yarns such as those usually used for satin fabrics

7. The card is then stretched on the roving frame into a roving and is now thin enough to be twisted into a yarn on the ring spinning machine.

8. On the ring spinning machine, the roving is further stretched by small rollers and then given the necessary twist by a ring on the yarn carrier and is then wound up. A distinction is made here between low-twisted and high-twisted yarns, depending on the properties the yarn is to have. Low-twisted yarns have a high elasticity and softness, whereas high-twisted yarns come up trumps with strength and lustre.

6. The fineness of the yarn is determined by the so-called „number English“. 1 Ne means 1.63934 metres of cotton yarn per gram. Thus, the higher the number, the finer the yarn.

