Yarn & Its Classification

Yarn

- A product of substantial length & relatively small cross-section consisting of fibers and/ or filaments with or without twist.
- Yarn is a long continuous length of interlocked fibers, suitable for use in the production of textiles, Sewing, Knitting, Weaving & rope making. Yarn can be made from any number of synthetic or natural fibers.
- Yarn may be defined as arrangement of fibers uniformly to a continuous mass of fiber bound together by twist without twisting.

- A generic term for a continuous strand spun from a group of natural or synthetic staple fibers, or filaments, used in weaving, knitting to from textile fabrics.

Yarn Classification

Yarn can be classified according to

(1) Length of fiber: (a) Spun yarn (Short staple and Long staple)

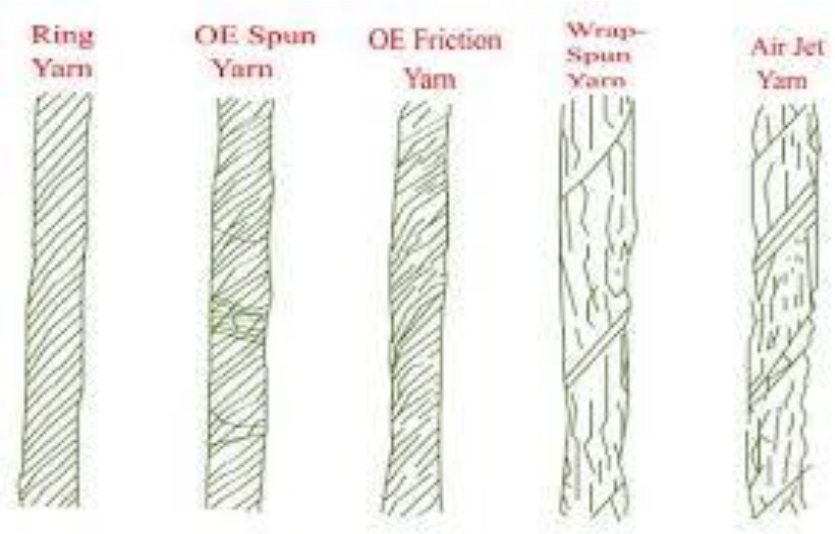
(b) Filament yarn (Monofilament, Multifilament)

(2) No of strand: (a) single yarn

(b) Ply or Double yarn

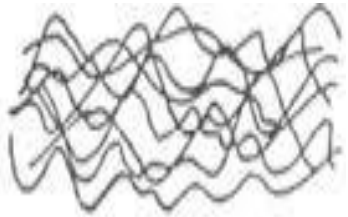
(c) Cable yarn

Yarn Classification



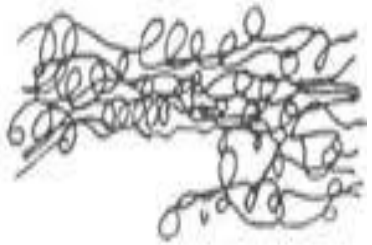
Yarn Classification

Flat yarns



Stuffer box

Air jet



False twist

Yarn Classification

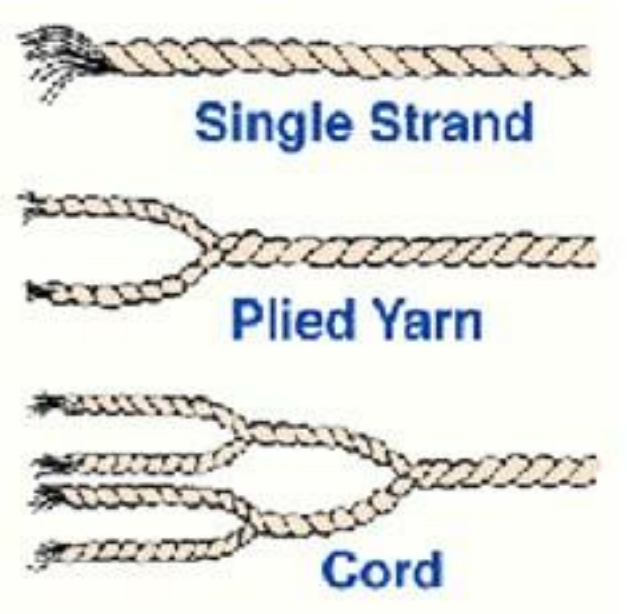
Ply Yarn:

All yarns are single ply unless twisted with another yarn. Terms used are: 2 ply if two yarns are twisted together & 3 ply if three are twisted. Piled yarns are used to make yarns stronger. In the jeans wear industry it has become important to ply yarns in piece dyed fabrics that are intended to endure a long stone wash cycle.

Cable Yarn:

A cable yarn is made up of two or smaller piled yarns twisted together. The easiest cable yarn is a 4-ply.

Yarn Classification



Yarn Classification

- **3) Spinning System:**
- (a) Ring yarn
- (b) Rotor yarn
- (c) Air jet yarn
- (d) Worsted yarn
- (e) Woolen yarn

Yarn Classification

(4) Types of fiber blend e.g. CVC, PC:

(5) Process sequence used e.g (a) Carded yarn

(b) Combed yarn

Characteristics of carded yarn:

- Carded yarns are produced including short fibers
- Comparatively less regular yarn
- Comparatively lower strength of yarn
- Less lustrous
- Less costly
- Contain neps
- More hairy
- Lower quality of yarn
- Comparatively coarser yarn

Characteristics of combed yarn:

- Combed yarns are produced excluding short fibers
- More regular yarn
- Comparatively higher breaking strength.
- More lustrous
- More costly
- No neps
- Less hairy
- Higher quality of yarn
- Finer yarn