SILK

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Abstract— Silk is an animal derived fiber produced from silk worm. It is the only natural fiber which is found in filament form. Fibroin is the main component of silk fiber. For over many years silk has been referred to the queen of textiles. Historically this is the highly desired fiber which has been used extensively for apparels and home furnishings. China is the first to discover this remarkable fiber, bulk of it is produced in China and India. Geographically, Asia is the main producer of silk in the world and produced 95% silk.

Keywords: Silk, Natural Fiber, Silk Worm, Smooth Fabric

I. INTRODUCTION

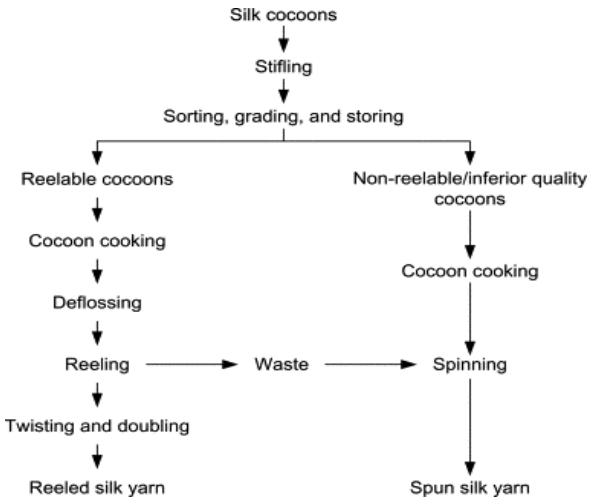
Silk is the strongest natural fiber lustrous, smooth having high absorbent and light weight qualities. The history of silk roots in china, for many years china alone used to produce silk fiber. There are over40 countries on the world map of silk, bulk of its produced in china and India. Silk is natural fiber made by silk worm cocoon. Silk fibers are very strong and often used to make cloth. The rearing of silkworms for obtaining silk is called sericulture. Fibroin is the main component of silk fiber. It can be called as a queen of fabrics due to its lustre, drape and strength properties. Silk fibers are very fine about 10 nanometers in diameter.

II. PRODUCTION PROCESS OF SILK

The process of silk production is known as Sericulture. The whole production process of silk can be divided into following steps:

1) Sericulture
2) Thread extraction
3) Dyeing
4) Spinning
5) Weaving
6) Printing
7) Finishing

III. FLOW CHART FOR PRODUCTION PROCESS OF SILK:



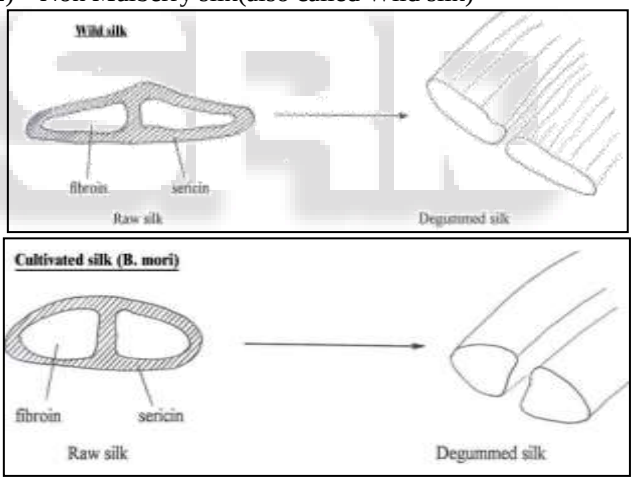
IV. SPECIALTY OF SILK

1) Silk is much lower in density as compared to cotton, wool or nylon.
2) Silk fibers are very fine, about 10 nanometers in diameter.
3) It is strong as steel in tenstile strength, silk is the strongest natural fiber known to man.
4) Silk does not conduct heat and act as an insulator to keep our bodies warm in cold weather and cool in hot weather.
5) It is highly moisture absorbent.

V. TYPES OF SILK

There are thousands of silk spinning insects, yet only a few have been investigated in detail. Silk is differ in composition, structure and properties depending on their specific function.so silk is divided into two main types that are as follows:

1) Mulberry silk (also called cultivated silk)
2) Non Mulberry silk(also called Wild silk)



A. Mulberry silk

It is known as cultivated silk or Bombyx silk. It is the most widely produced type. It comes from the silk worm Bombyx mori, which feeds solely on the leaves of the mulberry plants.

B. Non-Mulberry silk

A large number of species are used in the production of non-mulberry silk, but only 80 have been commercially exploited in Asia and Africa. There are following types of silk included in this, that are as:

1) Tasar
2) Oak Tasar
3) Eri
4) Muga
5) Anaphe silk
6) Fagara
7) Coan
8) Mussel spider

VI. ADVANTAGES OF SILK FABRIC

1) Luxirous hand
2) Excellent Drape
3) Wonderfull luster
4) It is cool to wear in the summer yet warm to wear in the winter.
5) It can be easily dyed.
6) stain resistant
7) Strong but light weight

VII. DISADVANTAGES OF SILK FABRIC

1) Fair abrasion
2) Turns yellow if bleached
3) Poor resistance to exposed sunlight
4) Expensive

VIII. END USES OF SILK FABRIC:

A. #Apparel

Luxury items, wedding dresses and evening gowns.

B. #Interiors

Curtains, cushion covers, sofa covers, pillows, wall hangings etc.

REFERENCES

[1] McGraw Hill Encyclopedia of science and technology (vol.12)Eighth edition
[2] https://www.kleiderly.com/our-blog/fabric-series-all-about-silk
[3] https://www.euromissinc.com/books/silk.pdf
[4] https://en.wikipedia.org/wiki/Silk

