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PROCESSING OF SEWING THREAD IN SERICIN LIQUID AND STUDYING ITS MECHANICAL PROPERTIES

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Annotation: In this article, we will describe sewing thread, their types and their effect on sericin density, and mainly we will give information about processing and mechanical properties of sewing thread with sericin density. Silk sericin is a natural polymer produced by silkworm, Bombyx mori, which surrounds and keeps together two fibroin filaments in silk thread used in the cocoon. The recovery and reuse of sericin usually discarded by the textile industry not only minimizes environmental issues but also has a high scientific and commercial value. The physicochemical properties of the molecule are responsible for numerous applications in biomedicine and are influenced by the extraction method and silkworm lineage, which can lead to variations in molecular weight and amino acid concentration of sericin.

***Keywords*:** Sericin density, sewing thread, mechanical properties, textile industry.

INTRODUCTION: There are several types of sewing thread and they differ. Polyester sewing thread is made from spun polyester threads and appeals to many different industries, from the finest fabrics to denim. Basic spun sewing thread is made by wrapping a staple polyester or cotton wrap around a continuous filament bundle of polyester fibers during spinning. Polyester High Tenacity Sewing Threads are made from polyester continuous filament, with a soft coating and low friction lubricant to reduce needle heat and wear.

Sericin is a protein produced by the silkworm, Bombyx mori, a holometabolous insect belonging to the Lepidoptera order and Bombycidae family. B. mori, which produces a great amount of sericin to the end of fifth larval instar and together with the fibroin, form the silk thread used in the production of the cocoon, structure that provides the ideal conditions for the occurrence of larval metamorphosis to adults.

MATERIALS AND DISCUSSION: The textile industry is one of the most important sectors of the economy. It is yarn from various raw materials, woolen yarn, silk, spun yarn, gauze, knitted and non-woven fabrics, such as produces necessary products for other sectors. The textile industry has its own .

In terms of its importance, essence, necessity for man, it is second only to the food industry stands. The textile industry is very complex and it is divided into several sectors. Thread mainly in spinning enterprises, gauze weaving enterprises, and knitted goods are knitted produced in enterprises. Finishing and flower pressing are done in finishing plants. In addition, there are enterprises that produce spun yarn, wool and other products enters the textile industry. Spinning is a thread of short and thin fibers with a defined maturity and linear density is a set of production technological processes. Any or more of these processes is carried out in special equipment. Spinning enterprises specializing in the production of yarn is called an enterprise. There are many types of raw materials used in the production of textile products. Their number is getting richer. These include, first of all, natural and chemical fibers enters. In addition to these, the production of many types of textile fibers and products the waste generated in the processes, secondary raw materials are used a lot. Fiber is the main raw material in the production of textile products. Fiber type the right choice plays an important

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role in the quality of the product. In theory all types of fibers can be used in the textile industry. This is the idea in practice is being confirmed. The large number of types of fibers makes it possible to choose them for systematization and production of products requires the creation of criteria. A number of recommendations of scientists and experts in this regard published in scientific literature. In the naming of natural and chemical fibers used in the textile industry classification of textile fibers presented in Fig. 2. for coordination of terms we can base it.

The choice of these threads was based on their linear densities which can probably affect the used amount of sewing thread. The sericin is a natural polymer, which acts as an adhesive joining two fibroin filaments in order to form silk yarn. The molecule is highly hydrophilic with a molecular weight that ranges from 20 to 400 kDa and consists of 18 amino acids, including essentials. The polar groups (carboxyl, hydroxyl, and amino groups) of amino acid side chains and its organic composition, solubility, and structural organization enable crosslinking, copolymerizations, and combinations with other polymers, which together convey unique properties to sericin as an antioxidant, moisturizing, healing, antibacterial, antimicrobial protection against ultraviolet radiation, and antitumour. Light industry is made of natural and chemical fibers, leather and other raw materials specialized in the production of a wide range of consumer goods, ready-made products,is a set of interconnected networks. Raw materials for this industry processing, spinning, weaving, knitting and non-woven fabrics, tailoring, leather footwear, non-wovens, carpets and carpet products, fur production industries. All technical for many sectors of the economy as well as consumer goods in industries and decorative fabrics and articles are produced.

The textile industry produces various gauze, thread and other products from natural and artificial fibers It is divided into large producing industries. It is social production and population plays an important role in satisfying the need. Textile industry from textile raw materials yarn weaving, linen weaving, wool, silk, non-woven materials, net weaving, textile - includes knitting, knitting, felting and other industries.

CONCLUSION: Light industry has a special place in the national economy of the Republic of Uzbekistan. Light industrial products are unique in meeting the material and cultural needs of the population is important. At the same time, local raw materials and others are needed for the operation of the industry availability of resources is an important factor in its development. A large population of the republic and the provision of jobs to people's social life and standard of living allows to provide improvement. So all to develop light industry it is necessary to focus attention and opportunities.

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