



## TEXTILE THREADS, THEIR CLASSIFICATION AND CLASSIFICATION OF THREADS.

Mengliyeva Madinabonu Tojiddinovna

Student of Termiz Institute of Engineering Technologies.

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**Abstract:** Textile fibers are flexible, durable bodies of small cross-sectional dimensions, limited length, suitable for the production of textiles. This article provides information about textile yarns, their classification and yarn classification.

**Key words:** Textiles, yarns, kalava, linen, complex yarns, viscose, acetate, carded yarn, kapron. Textile fibers are divided into two classes: natural and chemical. According to the origin of the fiber-forming substance, natural fibers are divided into three subclasses: vegetable, animal, and mineral origin, and chemical fibers are divided into two subclasses: artificial and synthetic. Textile yarns are natural and chemical. refers to a flexible and strong body made from fibers of indefinite length, small width, used for making textiles.

Kalava is a thread made from fibers that are joined together by gluing or weaving. Kalava can be plain, patterned, or modified. Kalava is a common type of textile yarn. The same raw materials of different quality and different fibers are used in making kalavas. The spinning process consists of processes such as combing and cleaning fibers, mixing, combing, taking strips, weaving them into long threads (kalava). Cotton carpets are obtained by carding, carding and hardware methods, linen carpets are obtained by dry and wet spinning, and woolen carpets are obtained by hardware and carding methods. In the production of textile materials, single silk threads, chemical complex and monofilaments, and cut threads are used. These yarns are obtained without spinning against kalavas. Classification and assortment of textile yarns. According to the methods of preparation, textile threads are spun (kalava) and ungathered. Non-spun yarns are monofilaments, complex, have a modified composition and a patterned appearance. The fiber composition is the same and different, the number of layers is single and multifilament, the structure is primary (wool, complex threads, monofilaments, reduced and rubber threads) and secondary (appearance, quality modified primary yarns - carded and woven), loose, solid, muslin, crepe, finished, dyed, glossy, dull, various colors (mulina). The kalavas are available in simple, fashionable and modified (high-volume) form. Patterned kalavas are made by changing the structure of some parts of the threads. High-volume (texturized) carpets are obtained from shrinkable polyacrylonitrile fibers in various cases. Such blankets are distinguished by their softness, softness, lightness and not much stretch. Cotton carpets are obtained by carding, carding and hardware methods, linen carpets are obtained by dry and wet spinning, and woolen carpets are obtained by hardware and carding methods. In the production of textile materials, single silk threads, chemical complex and monofilaments, and cut threads are used. These yarns are obtained without spinning against kalavas. Classification and assortment of textile yarns. According to the methods of preparation, textile threads are spun (kalava) and ungathered. Non-spun yarns are monofilaments, complex, have a modified composition and a patterned appearance. The fiber composition is the same and different, the number of layers is single and multifilament, the



structure is primary (wool, complex threads, monofilaments, reduced and rubber threads) and secondary (appearance, quality modified primary yarns - carded and woven), loose, solid, muslin, crepe, finished, dyed, glossy, dull, various colors (mulina). The kalavas are available in simple, fashionable and modified (high-volume) form. Patterned kalavas are made by changing the structure of some parts of the threads. High-volume (texturized) carpets are obtained from shrinkable polyacrylonitrile fibers in various cases. Such blankets are distinguished by their softness, softness, lightness and not much stretch. Gazlama is a product created by the interweaving of warp and cross (weft) threads during the weaving process. Consumption characteristics of gas products are formed in the design and production processes depending on their use. The structure is formed as a result of the interposition of threads and threads, which are their elements, on the loom. Sequential operations of gas production technological processes are called knitting. This process includes preparation and weaving operations. The main purpose of the preparation operation is to prepare the warp and weft yarns for weaving, to rewind the warp yarns in preparation for weaving, to pin the yarns to the loom, to yoke them and to such processes as passing through the holes of the frame are carried out. Automatic shuttle, non-shuttle and jacquard knitting machines are used to obtain the fabrics. In automatic shuttle knitting machines, the tubes in the shuttles are automatically replaced. They are single and multi-mobile according to their use. On multi-threaded looms, gauzes are made from yarns of different colors, raw materials, and textures. Jacquard looms are used to weave intricate large floral gausages. The flower formed by the weaving of cotton and jute threads on the face of the gausage is called a gausage flower. During the production of gauze, tanda and argoka threads form various weaves by covering each other. Closures can be made on the length of one, two, three or more threads. Knitting rapporti refers to the flower of a finished part of the type of knitting. Shift - the number of threads (vertical) to close the next thread in relation to the previous thread describes how many digits to shift. This shift can be one, two or more. Weaving types are divided into four classes: plain (head), small pattern, large pattern, and complex. Plain or head patterns include plain, twill, and satin. It is one of the most common types. It has the smallest ratio, the number of displacements and closures is equal to one. Therefore, the gauzes obtained in this process are hard, strong and less elastic, and are used in the preparation of chit, khamsurp (byaz), underwear and other items.

Twill knitting differs from plain knitting in rapporti, length of closure and shift. Diagonal-like images directed to the right or left are painted on the surfaces of the gasses obtained in this way. In addition, twill fabrics are softer due to the looser binding of warp and weft threads compared to canvas weaving. Satin knitting is used to make suits, shirts, linings and other fabrics. Satin knitting is characterized by the length of the threads (4 or more threads). If the threads of the body protrude more on the surface of the gauze, then it is called a satin weave, and if the threads of the yarn protrude on the surface of the gauze, it is called a satin weave. Since the binding of threads in satin knitting is almost weak, they are soft and smooth, and are used as lining gauze.

Fine-patterned knitting is divided into derived and composite knitting according to its characteristics and production. They include knitting such as reps, ragoga, broken serge, and diagonal. Composition. This is created by using several simple or derived weave types. These include ornament (pattern), crepe, embossed, waffle, diagonal and striped knitting. A variety of fabrics and accessories are obtained. Complex weaving is characterized by the use of three

or four systems of threads. Complex knitting types include one-and-a-half and two-layer, pique, feather, ring, and pleat knitting. These are used to make drapes, feathers, hoops and all kinds of elegant netting. Most of these gasses have high heat retention properties.

Large pattern (flower). Such weavings are characterized by the size of the rapporti, the variety of weaving flowers and types. Large patterned fabrics are obtained on jacquard looms. These knittings are used to decorate furniture, to make cloths for coats, tablecloths, blankets, hand towels and cloths for shirts and suits and other items. In the production of gauze, various defects may appear as a result of using defective threads, violation of preparation processes, malfunctioning of knitting machines and other reasons. Defects not only affect the appearance of gas, but also cause a decrease in their mechanical properties and difficulty in finishing.

Carded thread (carded thread) is the most common. It is made from medium staple cotton and chemical fibers. The carda spinning process consists of loosening and stretching, carding, straightening and drawing, pre-spinning and spinning operations. Cotton comes to the factory in bales. The pressed fiber mass is here separated into small pieces and cleaned of large impurities in special loosening and grinding units. Small impurities and dust are cleaned with mesh drums, where the cotton is absorbed by the air flow. Cotton tufts are combed with needle-like (carded) surfaces on netting machines. A tourniquet is made of combed cotton and is called a tape. Tapes are transferred to tape machines. In order to equalize the thickness of the tapes, as well as in the production of mixed yarn from cotton and chemical fibers, several tapes are combined. The tape formed in the drawing apparatus is thinned, the fibers are aligned and directed along the tape. In rotary looms, the warp is thinner and pulled out in the pre-spinning process. To fasten the fibers together, they are slightly twisted and a roving is formed. In ring spinning machines, in the last spinning, the roving is thinned to the required linear density with the help of a drawing device, and it is twisted into a thread and wound into a cob on a cartridge mounted on a spindle. Carded yarns of ring spinning machines consist of relatively aligned and oriented fibers. Each fiber does not lie in a single layer of yarn, but runs from the center to the edge and back along spiral lines of varying pitch and radius. The fiber areas located in the outer layers of the thread are more tense than the areas in the center, which creates an imbalance in the structure of the thread.

Spindleless machines are widely used to rotate the rotor. Such machines work on the principle of mechanical and aerodynamic influence on fibers. Rotor yarn differs from ring yarn in its structure. The density of fibers in the section of such a thread is not the same: the density of the central layer (core) is high, the twisted fibers decrease towards the outer layers. Uneven distribution of fibers in the thread leads to a decrease in its strength.

Combed yarn (combed yarn) is produced from long-staple cotton, linen, long thin semi-coarse and coarse wool, as well as silk, cocoon, silk and silk industry waste. In the worsted spinning system, the fibers take the longest path. After cleaning and carding, the fibers are prepared for carding, followed by the actual carding process and again straightening and drawing, pre-spinning and spinning. The purpose of combing is the same for all fibers: to remove short fibers from the fibrous mass, straighten and direct long ones. Combed yarn has the most correct structure. Carefully combed fibers evenly distributed along the length and cross-section form a thick thread, uniform in thickness, less woolly than combed. Since the fibers in worsted yarns are longer than worsted yarns, their degree of fixation is correspondingly



greater. Therefore, the strength of combed yarn is higher than that of carded yarn of the same origin.

Hardware spinning yarn (hardware yarn) It is produced from short staple cotton, wool and chemical fibers added to them, as well as spinning waste and recovered fibers (turned into pulp from the cap). Mixing different types of fibers is common in hardware spinning. The equipment spinning process is the shortest. After loosening, the fibrous mass goes to combing, which is carried out in two or three combing machines connected in series. On the last card, the bat is divided into strips, which are wound (twisted) on the roving. Yarn is made from roving in spinning machines. Hardware threads are the least uniform in thickness, the fibers in it are almost not aligned and not oriented enough. Loose, slightly bent hardware threads give products from it good heat protection properties.

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