



TECHNOLOGY OF INDUSTRIAL PROCESSING OF WOOL AND WEAVING OF GAUZE

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ABSTRACT

In the topic, the preliminary treatment of wool, its more productive use, washing procedures, all the main signs and characteristics of unwashed wool are shown. The sequence of bringing the initial processing technologies to the level of demand is obtained.

The purpose of preliminary processing of wool is to prepare wool raw material for further productive use of wool in accordance with the technological features of making various woolen articles. The main processes involved in the initial processing of wool include sorting and washing it according to industry standards. Wool is sorted before washing, because if the wool is washed as a whole, it becomes very difficult to sort after washing. All the main signs and characteristics of unwashed wool are clearly visible and easier to evaluate from an expert point of view. Washing the wool before processing is part of a process called preliminary wool treatment.

Soiled wool is divided according to the method of cleaning:

Wool washed in cold water, wool washed in sheep's body, wool washed in underwash, wool washed at home and wool washed in hot water or factory washed. If the contaminated coarse wool is washed in a river, stream, running water, it is considered wool washed in cold water. Naturally, when washing wool in cold water, it is impossible to wash off the impurities in it, especially wool and oily skins, which are difficult to dissolve in cold water. Therefore, soft wool and semi-soft wool cannot be washed in this way. In cleanly washed wool, the clean yield is 70-80 percent. Wool washed on the sheep's body is even less



clean. Wool washed on the body of sheep - wool washed by driving sheep through rivers or other man-made running water bodies. In this method, the fat remaining on the sheep is up to 15% in the main part of the leaf. Such wool is called "Peregon" or unwashed wool.

Pre-washed sheep's wool Depending on the hardness of the water and the amount of fat in the wool - a little - a lot of skin, the wool washed in the sheep's body is sometimes cleaned very little. Such wool is called "Poluperegon" or half-washed wool. In pre-washed wool, the clean yield is 60-64%.

In home-washed wool, the clean yield is 84-86%.

Wool washed or cleaned in hot water is wool heated to 40-50%, washed in solutions containing soap and soda, then rinsed in clean water and dried in special drying machines at 70-80 temperature.

The methods of combing wool or combs made by the method of combing wool differ from those made by the method of comb spinning, in that on the surface of the combs made by the method of combing, the patterns of the weaving of kalavas woven from them are clearly visible. Among the yarns spun in this way, boston, konverkot, komvol, cheviot and triko yarns are the most common. Compared to traditional cotton fabrics, which are made using the side spinning method, the fabrics are much softer and lighter. The weight of each square meter of side-spun cotton fabric is 200-450 g, and the weight of 1 m of fabric intended for sewing women's sheep is 110-190 g.

Compared to conventional yarns, yarns made by the method of carding require much higher quality wool. As the yarns made by carding and spinning methods of different quality and types are not suitable for weaving, even though different types of

high-quality yarns cannot be obtained from such wools, all kinds of wools are suitable for yarns. On top of that, the waste of wool from the weaving of gauzies made by the method of carding, for example, the twills that come out when combing wool, is mixed with other wool and used in the preparation of good gauzies. The quality of raw materials is crucial for the production of Movut gas products. The higher the quality of the wool, the more expensive and high-quality wool products are made. However, the technology of making movut gauze differs from the technology of weaving combs made by the method of carding, which allows processing and use of wool of different types and quality. Another difference is that, compared to conventional gazlams, gazlams are not only woven from high-quality wool raw materials, but their types are very numerous and diverse, and serve to meet the needs of the population in large and large quantities. And this, in turn, increases the demand of the population for worsted yarns, which are produced by the method of spinning.

By the method of spinning, i.e., from worsted fabrics, costume tops (boston, tricot, crepe, cheviot, etc.), dresses (crepe, fay, effect, schoolbop, baby, scotch), pants (striped, striped, etc.) and coats (covercoat, gabardine) is sewn.

Gauzlams woven in these two ways differ from each other, because the technology of their preparation is different. The difference between their technology is very big, so the wool processing machines and all the equipment in the factories producing fabrics woven by warp and weft spinning method are very different from each other. Therefore, one factory produces the best gas a, the second is specialized in the production of komvol fabrics woven by the



side spinning method. Cotton and artificial fibers can be widely used in the preparation of komvol gauzes, they are woven from wool or added to other kalavas.

The use of different types of wool used for spinning tarab resulted in two methods of spinning thin kalava.

1) Spinning method with short combed wool, sometimes called French spinning method.

2) Spinning method with long combed wool, sometimes called English spinning method.

In addition to these two main methods, there is also the semi-combing method, in which there is no combing, but a number of other processes are used.

For the method of spinning with long combed wools, even semi-coarse wools are used. So, the preparation of gazals, which are woven by the method of tarab spinning, begins with the preparation of kalava.

Yarns made by the method of carding (kamvol) are called kalavas, which are used to make fabrics woven by the carding method.

The work of preparing kalava for gauzes woven by the method of tarab spinning does not end with the creation of wool fluff. After the carding machine, the wool is passed through a special funnel and made into tape. After that, the tapes coming out of the device with several tape combs are spliced in splicing machines. The tapes are then passed through the tape machines to stretch them slightly and bring them to the same weight as possible. In this way, it is made into a ribbon, and the prepared fluff is combed and sent to the spinning machines. Since the working apparatus of this machine consists of rollers with flat metal combs installed, it is distinguished from belt-comb machines and is called card spinning machines. The purpose of this machine is to

comb the wool, that is, to make the wool fibers parallel to each other.

The name of this technological process is derived from this and is called carding-spinning.

In the process of spinning wool, it is intended to obtain a thread whose thickness, density and firmness meet certain requirements by stretching them and bending them in a row.

Uninterrupted and on-demand transfer of wool primary processing technology and finished wool products is evident as finished products. Therefore, the sequence of these processes is as follows: the wools taken from the warehouse are not immediately used in belt combing machines, they are first washed, and then they are crushed in a special carding machine to divide the large pieces into small pieces, making them porous and fluffy. If unwashed coarse sheep's wool or camel's wool is used in hot solutions, it is necessary to remove dust and vegetable impurities from the wool, in addition to combing these wools with the help of carding machines.

After the wool is combed, a wool mixture is prepared from different types of wool. The task of mixing wool is to create a mass of wool that allows you to obtain kalava and gauze that meet the demand, using various wool raw materials economically and efficiently. Proper preparation of the wool mixture allows better use of certain types and varieties of wool.

High- and first-grade wools of various fibers are woven by combing method, if gauzes are made, then such wools are processed in the system of fine wool combing. For example, the wool of Bukhara Karakol sheep, Turkmen Karakol sheep, Khorasan Karakol sheep, Balochi and other breeds of sheep is treated in the same way. A large amount of



wool of different fibers used as raw material for spinning fine wool on the carding system is obtained from crossbred sheep with semi-coarse wool of different fibers and fine coarse wool.

Some types of coarse wool, which do not differ much in terms of length and fineness, that is, wool with a large number of intermediate fibers in the composition and with a medium thickness of the pile body, with a relatively coarse grain, are sometimes not only high-grade, but even low, third-grade wool in the carding method. is also used as However, because the wool fiber of this variety is long (12-20 cm.) and thick, it is used as raw material for spinning from coarse wool according to spinning system (spinning in English). However, the vast majority of the various fiber wools obtained from coarse-wool sheep are spun for wool.

The most convenient raw materials for spinning are wools of the same fiber. Wool with a length of 100-110 mm is processed according to the system of combing and spinning fine wool; 110 mm and longer wools are processed according to the coarse wool carding system.

Contamination of wool with foreign impurities, decrease in the strength of wool fiber and the formation of lines in it, as well as the presence of other defects of wool along with reducing its technological suitability, it has an especially negative effect on the processes of carding and subsequent carding and spinning system.

On the surface of Movut gases, kalava is not visible at all. It is dense and prominently carbonated.

Similar to Movut gazlama kalavas, gazlama kalavas are divided into main and secondary kalavs.

Main kalava - grows lengthwise along a piece of gauze and forms its transverse threads. Argoq is the threads that cross the base of the gauze piece.

In this method, looms are used to weave gauze from kalava. With the help of weaving looms, the looms are arranged in such a way that first one thread (warp) is pulled parallel to each other at a certain interval, then another thread (weave) wrapped in a special tool of the loom called the shuttle is taken according to a fixed system, and is pulled transversely between the longitudinal threads and as a purp. so-called gas is obtained. The surps are then given a finishing touch, after which the finished gauze is created.

In textile work, warp and warp threads are distinguished from each other and used in different ways. According to these differences, the kalavas used for the base are required to be much tighter than the kalavas used for the rope. For this reason, the density of the wool raw materials used for making basic kalava should be much higher than the wool raw materials used for making kalava. The quantity and quality of prepared wool depends on the initial properties of the wool (thickness, length, firmness, etc.) as well as on the methods of its processing.

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