ANALYSIS OF THE WORK CARRIED OUT ON THE ASSESSMENT OF THE MOBILITY OF THREADS IN FABRICS

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It is necessary to adopt a separate government decision to expand the holding of export fairs for industrial enterprises and other industries that produce competitive products in our country, as well as to widely use modern methods of product sales, to attract our main manufacturers to prestigious international fairs to present their products and conclude new export contracts. It is planned to develop the textile industry with foreign technology and work experience, assimilate them, and development of good technology in its field based on them. At the same time, increasing the quality level of the product and the scientific and technical level of the standards, regularly updating the standards and technical conditions, product quality and high technical level should be guaranteed. The main focus of the institutions of scientific research and design of technological processes in the field of textiles is focused on this issue. Today, one of the main tasks facing the industry of our republic is to rapidly develop production, increase its efficiency, accelerate scientific and technical progress, and increase the material and moral interest of the population at the expense of increasing labour productivity [1,2]. Replacing old equipment in industrial enterprises with modern ones and operating according to international standards are among the most important tasks. Today, one of the main tasks facing the industry of our republic is to rapidly develop production, increase its efficiency, accelerate scientific and technical progress, and increase the material and moral interest of the population at the expense of increasing labour productivity [1,2]. Replacing old equipment in industrial enterprises with modern ones and operating according to international standards are among the most important tasks. Today, one of the main tasks facing the industry of our republic is to rapidly develop production, increase its efficiency, accelerate scientific and technical progress, and increase the material and moral interest of the population at the expense of increasing labour productivity [1,2]. Replacing old equipment in industrial enterprises with modern ones and operating according to international standards are among the most important tasks.

In our country, the light industry system is one of the areas of improvement and development that has gone a long way compared to other areas of industry [3,4]. Consistently implemented reforms in the management and development of this sector allowed expanding the participation of light industrial products not only in the national economy but also in world markets.

The strategic task of the light industry is not only the production of semi-finished products but also the production of finished products intended for export, the implementation of investment programs, and taking into account the demand of regions when starting new capacities [5,6,7].

Depending on the application, the fabrics are raw materials from their production and should have the appropriate physical-mechanical and demand response characteristics that determine the structure of the type of fibre material used. The physicomechanical and demand response properties of fabrics are characterized by the following indicators:

Durability, hardness, abrasion resistance, iron recovery after washing, gloss, light transmission, mild electrification, etc.

The physical and mechanical characteristics of multi-layered fabrics are also subject to requirements related to their field of application [8].

Hygienic, operational, technological and aesthetic requirements are imposed on layered fabrics used in the household industry [9].

Complex requirements reflect a modern approach to the appearance of fabrics, including their wear. The structure of fabrics is defined as the arrangement of warp and weft yarns relative to each other and their interdependence.

The main recommendation for fabric wear is shearing, linear density (diameter) of warp and weft yarns, warp and weft density in fabric and application phase, filling and re-filling indicators, fabric thickness, and base surface calculated. These descriptions can be conditionally divided into 2 groups - free and obligatory (dependent) groups. Free (baseline or initial) parameters of fabric texture are initially given or adopted when fabric texture is formed. These parameters will not depend on other parameters of the fabric structure. They include parameters such as the composition of raw materials used in the production of fabric and the type of fabric and threads. In this case, the type of fibre and the wear of the thread or fabric, the indicators of the cross-section, dimensions and shape,

Some fabrics determine the smoothness of the surface and determine the mobility of the warp and weft threads. This type of assortment includes a group of fabrics with a satin weave woven from silk threads. One of the parameters that determine the mobility of the threads during operation, its sheer is considered.

To increase the strength of the surface of the products, it is necessary to carry out research as much as possible under any conditions. Bringing them to an optimal position, in terms of adaptation, should be done by ensuring that the location of the threads in the fabric does not change after washing. The elasticity depends on the composition and wear of the raw yarn fibre, and on the weaving and finishing of the fabric [10,11,12]. In almost all conditions, properties such as the conditional diameter of the thread, the density of the fabric on the body and the warp, the support surface, and the phase of wear play a special role in achieving a reduction of the displacement of the threads. Currently, the demand for satin fabrics is increasing. In particular, in the case of paying attention to their wear, the requirements for reducing the mobility of the threads in the fabric are relevant.

Mixed cuts are part of small pattern cuts. Lavsan produced by these types of weaving has small patterns of different shapes on the surface of the fabrics. Their smoothness and smoothness are higher compared to sorghum and mat-spun fabrics.

The radius of curvature increases with increasing coverage, increasing the volume of fibres prone to bending and, accordingly, an increase in the amount of work consumed.

VVRakitskikh researched lavsan fabrics and IVSabov on acetate and viscose fabrics of various weaves to complete the information on the determination of the surface of fabrics by shearing [13]. They reported that the surface of the fabrics is strengthened with the increase of the density coefficient during shearing, and in this case, the density coefficient is equal to 0.6 to 0.7. The observed cases are related to the influence of 3 factors: thread connection between the fabric composition elements, tangential resistance and support surfaces.

All three factors are in optimal proportion to maximize surface durability. When the density coefficient is from 0.6 to 0.7, the decrease in surface strength is observed with a small size between the elements of the composition, and its increase is observed when the density coefficient is at the same level when the tangential resistance and the bearing surface decrease [14,15,16].

Bigesonok and M.Ya. Mustafev expressed the following equation that the surface strength of Mikal-type fabrics depends on the linear density of the warp yarns Tu and the density of the fabric along the warp depend on Ru:

51 8, 1Tu+26.1 Ru =2.91

According to LGLeytes, in fabrics with a high warp density, the strength of their surface may be slippery due to the small mass (volume) of the yarn system. GFPugachevsky, studying lavash-cotton fabrics, found that if the decrease in density up to 14% on the body did not affect the surface strong enough, then the decrease in the density on the warp by 21% led to a clear decrease in this indicator. ; b-tane cut of the fabric; v-equal surface fabric cut; Section of g-thin surface fabric [17].

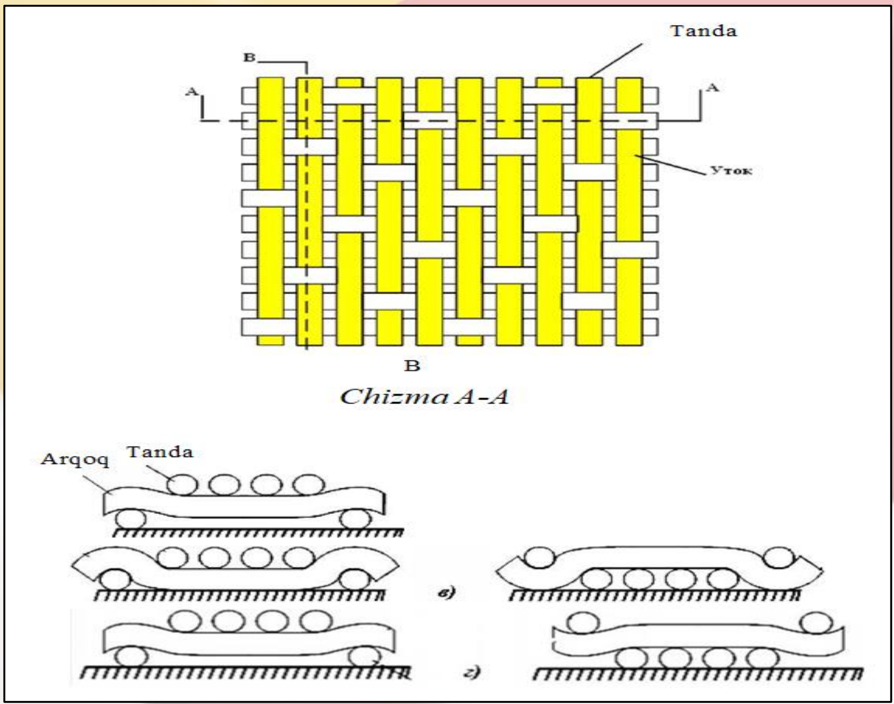

Figure 1. Weave pattern and cross-sections of satin 5/2 weave fabric.

If the properties of the threads in both systems are different, it is required to produce a thread system with high resistance to bending on the supporting surface. Depending on the condition of the yarn complex on the surface of the fabric, i.e., the location of the complex on the surface, fabrics can mainly be warp-backed, body-backed, and even-backed. Even-backed fabrics are formed by having equal total warps (e.g., plain warps), and yarn diameters equal to 5, or when the warp and weft are equally exposed on the surface of the fabric. . Figure 1 shows a cross-section of a satin weave fabric with three different support surfaces.

Many researchers point out that there are many difficulties in obtaining fabrics of equal strength because of the many changes that occur in fabric wear due to finishing and operation. In particular, many researchers have proved in their work [18,19,20] that it is possible to form fabrics with equal support by increasing the density of the warp to the density warp.

The ratio of body density to warp density should be:

According to the information provided by LGLeytes, it is from 1.05 to 1.2;
according to F.V. Vasilev - from 1.08 to 1.24;
according to I.V. Dukovsky - from 1.16 to 1.26;
According to I.S. Margolin-1.2 - up to 1.3;
according to V.I. Smirnov - from 1.1 to 1.18;
According to V.P. Sklennikov - should be within the range of 1.1 to 1.12.

It is appropriate to note that these data are obtained during the formation of fabrics from yarn spun on smooth, loop-shaped spinning machines.

In the study, 18 variants of multi-layer woven fabrics were selected. For it, yarn of 27.1 tex and 34.2 tex cotton threads of different weaves is used as a basis. A piece of fabric is woven from cotton fibre 27.1 and 36/2 tex yarn was chosen for the pile fabric, and its physical and mechanical properties were tested on the modern equipment of the testing laboratory at the Namangan Institute of Engineering Technology.

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