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Research Article

ANALYSIS OF SHIRT FABRICS FROM A MIXTURE OF LOCAL RAW MATERIALS

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ABSTRACT

Nowadays, if the pole component is obtained due to the mixing of fibres in the technological process of spinning, the production of textiles that meet the high aesthetic and hygienic operational requirements and world demand has increased significantly. In the article, a comparative study of theoretical and experimental methods in the analysis of tissue structure and physical-mechanical properties, theoretical justification of the importance of thread parameters, research of ways to increase the hygienic properties of the tissue in the production of shirt fabrics, silk and the development of a new type of cotton thread tissue was comparatively analyzed.

KEYWORDS

Light industry, textiles, sewing-knitting, leather-shoes, fur, shirt fabrics.

INTRODUCTION

In the Decision No. PQ-4453 of the President of the Republic of Uzbekistan dated September 16, 2019 "On measures to further develop light industry and stimulate the production of finished products", in recent years, the light industry in the Republic of textile, development of sewing-

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knitting, leather-shoes and fur industries, expansion of types and assortments of manufactured finished products, as well as the increase of production of competitive industrial products intended for investment and export of industry enterprises, introduction of modern technologies that save energy and resources, technical and technological re-equipment, on the basis of which the tasks of ensuring population employment, increasing people's incomes and well-being have been set. Therefore, the creation of textile production technology from a mixture of local raw materials, and the creation of a new type of textile production technology woven from mixed yarns is one of the important urgent tasks of today [1-7].

Therefore, - a comparative study of theoretical and experimental methods in the analysis of tissue structure and physical-mechanical properties, the theoretical justification of the importance of thread parameters, research of ways to increase the hygienic properties of the tissue in the production of shirt fabrics, the tasks of development and comparative analysis of a new type of silk and cotton thread fabrics are priority tasks.

Nowadays, if the pole component is obtained due to the mixing of fibres in the technological process of spinning, the production of textiles that meet the high aesthetic and hygienic operational requirements and world demand has increased significantly. Taking advantage of these opportunities, we also started our research analysis to create a new type of shirt fabric. The available assortment of sodas is constantly changing [8-12].

The production of out-of-fashion, out-of-use, old-style gas masks will be discontinued. In terms of fibre composition, structure, finish and properties, the assortment is updated due to the creation of new fabrics. At the same time, some articles of gas are produced for several decades. For example, chit, satin, gray, mitkal, and poplin are among them.

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Figure 1. Samples from the assortment of different fabric

Description of common cotton fibre fabrics. Common cotton fibre fabrics are divided into household and technical varieties. Household appliances make up a large part of this assortment. Household cotton fibre fabrics are diverse in colour, and structure, and are widely used in the preparation of dresses, blouses, skirts, trousers, suits, sundresses, pal too, sportswear, special clothes, gymnasts and other items. When knitting cotton fibre fabrics, all classes of weaving wraps are used. In terms of dyeing, cotton fibre fabrics are divided into raw, bleached, cedar, melange, mulinirated, floral and floral printed varieties. Made with a washable applet, non-crumpled and non-penetrating finish. The production of cotton fibre fabrics is increasing year after year. Cotton fibre fabrics are divided into 17 groups: chits, Bozs, underwear fabrics, satins, shirts, clothing, etc. Most of the range of household appliances belongs to the first six groups. Some groups are divided into subgroups.

The range of cotton fibre fabrics is developing in the following areas:

- to create gaskets that keep their shape well (flat, smooth surface light gaskets of the boz and poplin type), as well as flat or gauze with a classic crease (which is a surface on which a feather is released to one side).

- plastic gaskets - the creation of special, soft and light gaskets, soft gaskets.

The range of cotton fibre fabrics will be changed due to the production of new structural fabrics, change in colorite, pattern, and various finishes. New fabrics are being produced, such as gilded, embroidered, etc.

The assortment is also being updated due to the use of viscose and synthetic complex threads in cotton fibre fabrics, and the addition of staple synthetic fibres. Such fabrics are produced by the cotton fibre gas industry, but they are included in the range of silk fabrics. The technological properties of fibre fabrics depend on their structure. Depending on the type of yarn used, cotton fibre fabrics are divided into the following types:

1. Cotton fibre fabrics are woven from spun yarn in the re-combing method;
2. Cotton fibre fabrics are woven from snow yarn;
3. Weaves are woven in re-combing methods, adding spinning threads in different ways.

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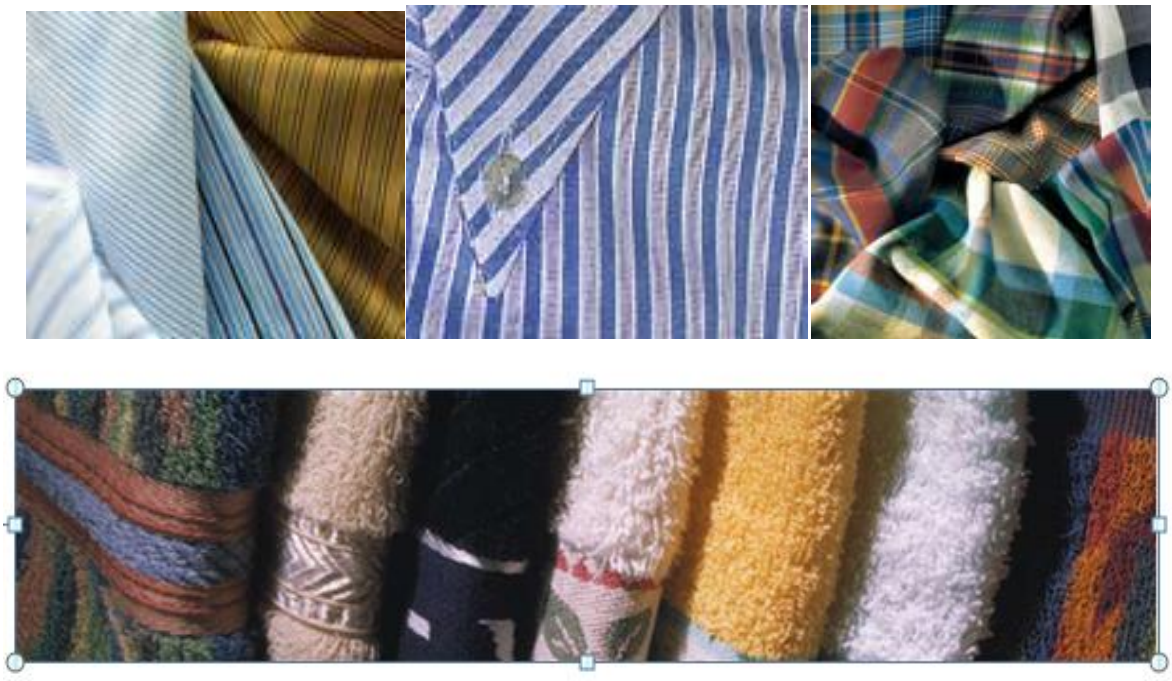

Figure 2. Samples of cotton fibre fabrics

Chit is a fabric woven in a surp braid from a yarn of medium consistency.

A 18.5 tex yarn is used for the chit's tanda and 15.3 Tex yarn for the arc.

Relative density on Tanda 49-53%;

the mass of one meter of chit is 92-103 g.;

the width of the fence is 61-80cm.

Raw chit is called mid-mitral. A flower is pressed into many chits, which are also produced as a siderog. Children's and women's summer shirts, blouses, sundresses, men's jackets, gowns, and clothes are worn when bathing, volumes, nightgowns, etc. are sewn from Chit. When washed, the chit does not enter much on the arc, 3-5% on the tanda enters. A much thicker and heavier fabric than chalk. Chalk is woven in a surp braid from a yarn of a much thicker snowman than the yarn used in chit. The body of typical Bozs will be 25 tex, and the arc will be from 29 tex yarn. The relative density of the Boz on the tanda is similar to that of the chit, slightly higher on the arch; the mass of 1 m2 of Boz is 140-160 g; the width is 61-98 CM. the bow is coarser to the fingers than the chit. The flower can be pressed on only one side or both sides of the Bush. When the flower is printed, the bow is used for sewing men's jackets, children's suits, women's jackets, and curtains. The Boz can be hard, shiny and silvery with a finish. The technological properties of Boz are similar to those of chit. The Bush is quite firm and does not stretch much. When

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washed, the chalk enters more (4-6 %) than the chit on the tanda.

Satin-group includes satin braids woven in satin braid and lastics woven in satin braid. The tire is used less often than satin.

Depending on the thickness, satin and lastics are woven in 14.3-11.7 textual yarn spinning in return method, and 18.5-15.3 textual yarn spinning in Cardan method is divided into woven varieties. Satin and tires ten are smooth, shiny. The relative density (70-75 %) on the arc is much greater than the relative density (40-45 %) on the coin so that the arc Strip in satin protrudes to ten. The relative density of the tires on the arc is greater than the relative density on the tanda.

In terms of Coloring, satin is divided into Cedar, flower-printed and bleached varieties. Satin obtained by the method of re-combing is mercerized during finishing. Satin embroidery with a printed pattern tolerates washing five times. Due to the fact that the right is smooth, the size of the relative density of the system that forms the right, mercerized, satin tolerates friction well and is used as a lining. On the satin Arch does not enter much, on the tanda 1,5-2% enters.

The group of shirt fabrics is very diverse. This group includes knitted yarn with the addition of summer, winter, seasonal and chemical complex yarn.

A small group of summer fabrics includes sparse, thin and light fabrics. They are mainly produced as floral, but there will also be bleached ones. Maya, volta, vual, marquisette, and batist are knitted in a palotno braid from a spinning yarn in the method of re-combing. These are now Little produced.

Maya and vol are thin floral fabrics that are woven from spinning single-strand yarn in a TA-re-comb method.

Vual and marquisette are fine-tipped and re-tousled yarn-woven fabrics. The flower is pressed to the Vual. The marquisette is a fabric thinner than the vual, bleached, gently colored and with a floral print.

Batist is a thin, fine, bleached or flower-printed fabric that is woven in a chamber braid from yarn of thin single-strand yarn, which is spun in a re-combing method.

The new range of shirt fabrics mainly includes all kinds of fabrics in small-flowered sometimes-large-flowered wraps, as well as gauze fabrics.

Depending on the method of production, woollen fabrics are divided into camvole and movut fabrics. Camvole fabrics are knitted from yarn of yarn in the method of re-combing. Such fabrics are considered the thinnest and lightest in woollen fabrics, the pattern of their winding is clearly recognizable. Movut fabrics are woven from yarn spinning in a hardware way, and camvol differs from fabrics in thickness, mass, dust absorption. Movut fabrics have a characteristic fluffiness, the surface is felt or combed out. Movut fabrics are divided into soft movut woven from fine wool and coarse movut with short fibres. Coarse mowut fabrics, unlike

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soft mowut, strongly blend and sink into the fingers.

The range of woollen fabrics will be updated due to the production of fabrics with new structural and winding patterns, as well as improving the appearance and plastic properties of classic structural fabrics. New directions in the development of the assortment are associated with the weaving of soft plastic fabrics with a silky smooth surface, fabrics with a flat surface from multi-colored melange yarn, fabrics with a velvety surface, including feathery.

The range of shirt fabrics is produced from floral printed fabrics, jacquard braided floral fabrics, pure wool yarn and semi-yarn woven fabrics with the addition of synthetic threads.

For summer dresses and shirt suits, fabrics are produced that are of different structure but are colored with the same structure but with different colors.

For the range of coat fabrics, fabrics with erect and bed hair, curly floral and Cedar coat fabrics and drapes, and fabrics with a volumetric structure with nitron fibre are produced.

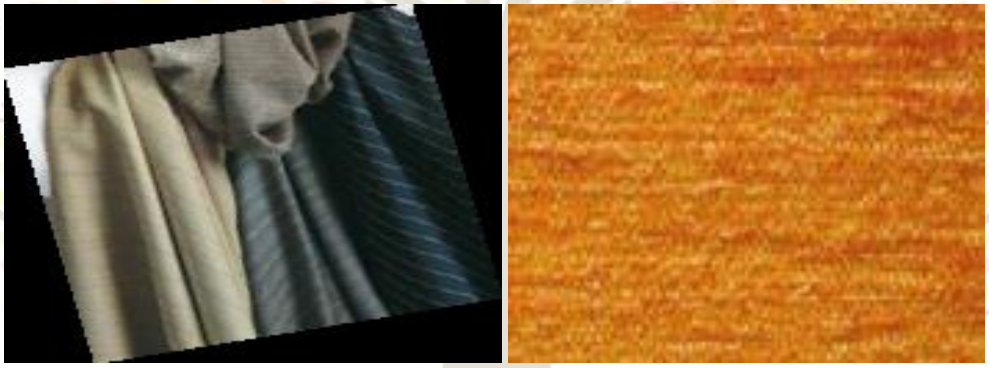

Figure 3. Assortment of woolen fabrics

Camvole fabrics are divided into shirt, suit and pal tolik varieties. Shirt camvole fabrics will be light, the pattern of the braid is clearly known, they are produced from 15-31 single-strand single-strand yarn and 15x2-31x2 single-strand baked yarn.

Sheviot is a semi-woolen Cedar fabric woven in sarja braid. Its body is made up of cotton thread. Their color will be quite dark, the mass of 1 m2 of fabric is 340-380 g.

Synthetic fibre wool fabrics form the kata part of the range. The toughness of fabrics increases as a result of the addition of synthetic fibres. Fabrics with the addition of Lavsan are most often used. Woolen fabrics with lavsan are much more durable, Birch, resistant to light and weather influences, do not wrinkle much, poorly penetrate when cocked.

Nitron fibre wool fabrics are produced as suit and shirt fabrics. It is not crumpled, it becomes resistant to the effects of chemical reagents.

In terms of composition, structure and finishing of fibres, silk fabrics will be diverse. 98% of the range of silk fabrics is made up of fabrics woven from chemical fibres.

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The assortment of silk fabrics often changes. Their range is expanded at the expense of the use of elastic, voluminous and profiled synthetic threads (such threads are used independently or combined with natural and artificial silk), the complication of types of wraps (widespread use of large-flowered complex wraps), various methods of finishing silk fabrics (corrugation, acceleration, flower pressing, thermal processing). The main areas of assortment development:

creation of dense fabrics with bunk beds, glossy surfaces; production of fabrics whose surfaces are sharply different from each other (one side is smooth, shiny, the other side is gray or smooth, but dull) ;

using strong, shaped matured and textured yarn, create elegant fabrics including eponj type texture surface;

production of fabrics that give a barcode effect and a twill spinning effect.

For the manufacture of beautiful T-shirt and T-shirt-suit fabrics, textured threads with the addition of acetate or triacetate fibre and shimmery metal threads are widely used, voluminous threads made of matured triacetate silk with the addition of profiled Capron. Single-layer and multi-layer, cedar and floral, flat and voluminous structural fabrics woven in small-flowered and large-flowered wrappers are produced.

The range of plaid fabrics is complemented by floral printed fabrics, staple , lavsan-viscose or viscose-Capron mixed spun yarn with rubberized fabrics woven from Ward wrapping, film-coated fabrics to the right. Pure viscose and mixed coil yarn: the production of staple fabrics woven from triacetate-viscose, triacetate-viscose-Capron coil yarn is expanding.

Silk fabrics are most often produced from raw silk with a consistency of 1.5-2.3, from pitted natural silk and spun silk threads. The mass of the thinnest fabrics of 1 m2 is 14-22 g. The group of natural silk fabrics includes crepe, glad, jacquard feather and others.

Crepe fabrics are most commonly used. The surface of the tissues of the crepe group, such as crepe-deshin, crepe-chiffon, crepe-jorjet, is made finely granular, thin, light, transparent these fabrics give the crepe effect.

Among the Glad fabrics, silk-polotno is most common, raw silk is used on the tandasi, and loose baked silk on the arch. Silk-polotno-is a raw yellowish or floral, dense and ungrateful fabric, poorly crumpled.

Examples of jacquard fabrics are silk fabrics used as decoration.

A velvety example of fluffy fabrics is that it is produced in a fluffy braid from silk thread. The mass of 1 m2 of fabric is 190 g.

Fabrics produced by adding other fibres to Silk are produced by adding natural silk to cotton or complex yarns, voluminous synthetic yarns. The feathers of velvet fabrics will be made up of

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viscose threads and the floor thread will be made up of natural silk or cotton fibre yarn.

Fabrics made from artificial threads make up the most numerous group of silk fabrics. They will be much thicker, heavier, crumpled compared to fabrics woven from natural fibre threads. Applying the crepe method to the cooked strands reduces the creakiness of the fabrics, but increases the roughness.

Most fabrics woven from synthetic threads are woven from complex threads with 3.8-6.5 textures. Profiled Capron threads are used to make the fabrics shiny and shiny. Using 100% Capron on the body and arch, lining, blouse and plaid fabrics are used. Lining Capron fabrics are very durable, resistant to abrasion, practically do not penetrate, but do not tolerate heat very well, and have very low hygienic performance.

The piece is a shiny, coarse fabric that is woven from synthetic and viscose threads in small and large floral wraps, using a lot of metal threads (tongues, silvery threads) on the Arc System. Metal threads are pulled out to the right of the fabric.

Staple fabrics can be woven from artificial and synthetic staple fibres. Most staple fabrics are woven from viscose fibre threads. There are also fabrics woven from acetate, triacetate and synthetic staple fibres - lavsan and Nitron. Usually, when spinning, staple fibres are mixed into cotton fibres. The weldability of fabrics in synthetic staple fibre insertion Nati. The barrier resistance increases and keeps its shape well. Depending on the thickness and mass, staple fabrics are used as T-shirts, suits and pal fibre fabrics.

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