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## CHANGES IN THE FULL COMPOSITION OF THE PHYSICAL AND MECHANICAL CHARACTERISTICS OF COSTUMBOP FABRICS

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### Abstract:

In this article, we have taken samples of 64.7% cotton + 35.23% polyester fiber, 50% cotton + 50% lavsan fiber, 100% lavsan and 24.5% cotton + 75.5% lavsan fiber summer costume fabrics, which are physico-mechanical. properties were determined with the help of modern equipment

**Keywords:** costume fabrics, cotton, physico-mechanical, polyester fiber.

### INTRODUCTION

Taking advantage of the range of modern textile equipment in the development of the textile industry, the production of a new range of costume fabrics from local raw materials is one of the most pressing issues of today.

Costume fabrics differ from each other in structure, fiber composition and properties. In addition, these fabrics are produced depending on the season. Seasonal costumes are made of woven and respun yarns.

Suits for summer are lightweight, airtight, durable, suits for winter are high density and thick, and have high heat retention properties.

The fabrication of the fabrics is determined by the interconnection and contact of the threads and the threads. The appearance, properties and uses of textile fabrics depend on its composition.

If one of the indicators of costume flare construction is density, the other is their density. If the density of the gases differs from one another to the other, the density of such gases will give a notch.

The density of costume fabrics varies widely. The thinner the yarns of fabrics of the same density, the thinner the fabric, ie the less it is filled with yarns.

The main indicators of costume fabrics include such indicators as density, tensile strength, elongation at break.

### METHODOLOGY

Research work has been carried out on the study of dimensional and physical-mechanical properties of costume fabrics. For this purpose, samples of costume fabrics with different fiber content and physical and mechanical properties were studied.

The results obtained by the test are given in table 1.

1- table. Costume fabrics are filled with different quality indicators effect of composition

t / r	Fabric full composition	The line of the rope density, tex		surface density	Fabric rupture power, N		Elongation at break,%	
		select on	arch on		select on	arch on	select on	arch on
1.	64.7% cotton + 35.23% polyester	30	30	219,8	813	332	15,5	13,8
2.	50% cotton +50% polyester	42	42	217,2	1015,1	560,0	24,0	12,0
3.	100% polyester	38	37	207,0	1015,0	1015,0	26,0	32,0
4.	24,5% cotton +75,5% polyester	31	28	201,6	920,0	430,0	20,0	18,0

Based on the results in the table, figures 1-3 show graphs of the tensile strength, elongation, and surface density changes in the body and back direction of suit fabrics obtained from a mixture of fibers of different compositions.

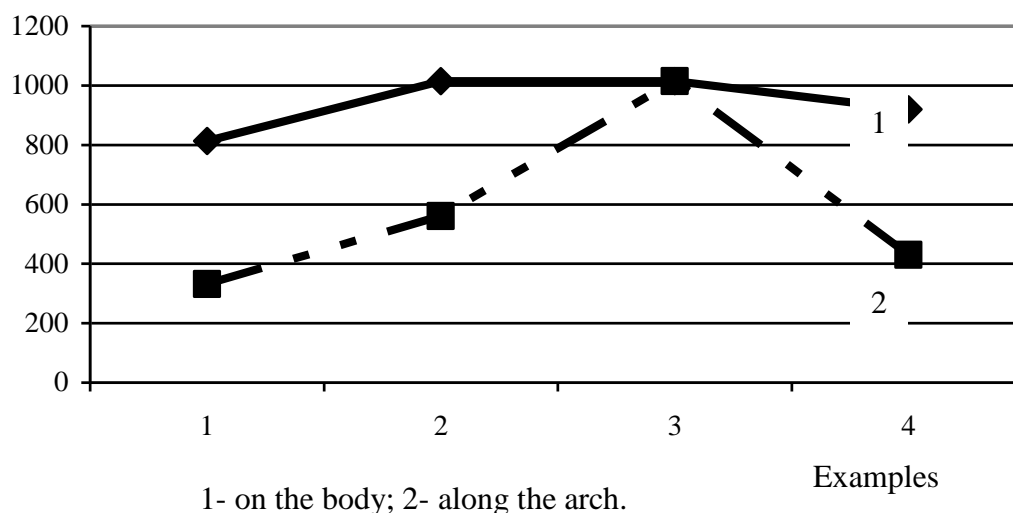


Figure 1. Changes in the tensile strength of suit fabrics in the body and in the direction

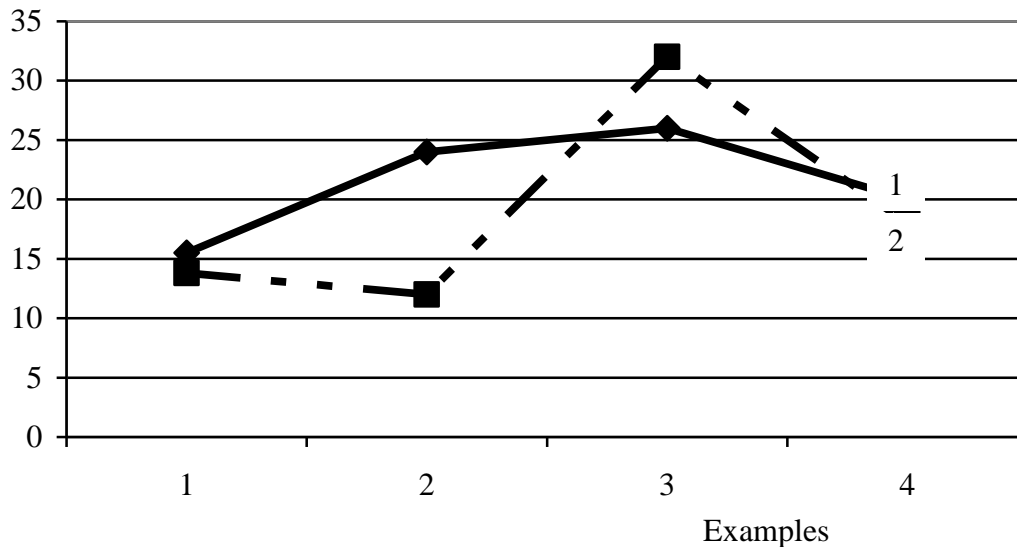
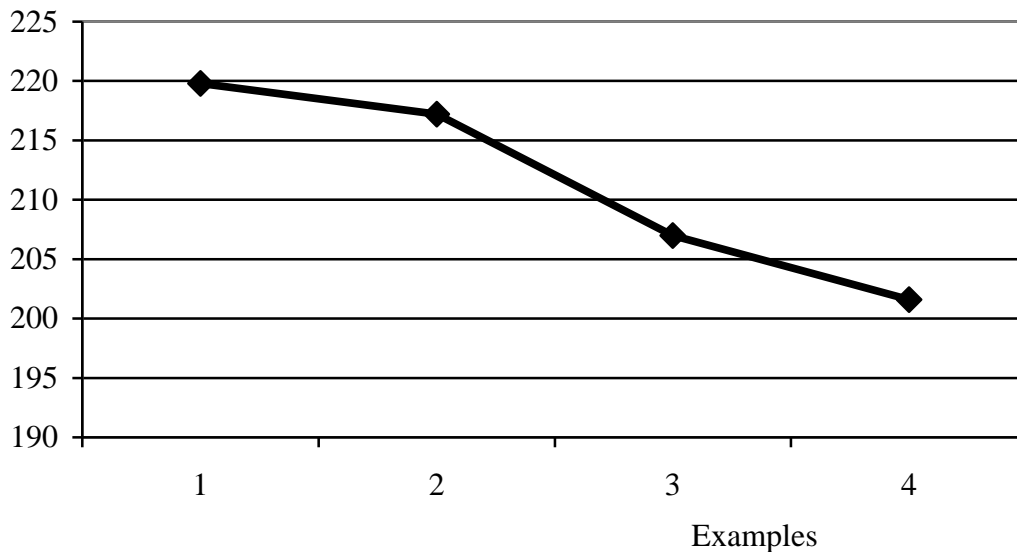


Figure 2. Changes in the elongation of the fabric of the suit in the body and the direction of the back.

1- on the body; 2- along the arch.



3-picture. Changes in the surface density of suit fabrics.

## RESULTS AND DISCUSSION

If we compare the results of the study with the quality indicators of 64.7% cotton + 35.23% polyester fiber suits, the surface density of 50% cotton + 50% polyester fiber suits decreased by 1.1% to 19.9%, the tensile strength of the rope increases by 40.8%, the elongation at the waist increases by 35.5%, the elongation at the tear decreases by 13.1%, the surface density

of 100% polyester fiber suit fabric decreases by 5.5%, the body length increases by 19.9%, the tensile strength by 67.3%, the elongation by 40.4%, the elongation by 56.9% and 24.5% cotton + 75.5% polyester fiber. The surface density of summer suit fabric is reduced by 8.3%, the tensile strength of the body by 11.6%, the tensile strength of the rope by 22.8%, the elongation of the body by 22.5%, the elongation by 23.3% increases. In addition, a comprehensive assessment method was used to assess the quality of costume fabrics of different fiber content.

here are a number of ways to assess product quality, including experimental, organoleptic, expert, sociological, computational, differential, complex, and mixed methods.

There are a number of methods for assessing the quality of costume fabrics of different fiber content, the most acceptable of which is a complex assessment. The advantage of this method is that it is used to summarize the final estimate from the sum of the indicators in the diagram. This assessment, along with the advantages, is not without its shortcomings, that is, we do not have complete information about its specific features. In order to choose the right raw material, it is necessary to know the rational use of materials during the management of the technological process and its use. It should be borne in mind that the initial properties of this or that material can negatively affect the quality of the product and the movement of the positive and technological processes.

The method of complex assessment is a joint assessment of the product on some individual indicators of product quality, which sometimes leads to the need for a general assessment of several complex key properties of the product in a single indicator. As a result, this is called a general assessment of the quality of textile materials, for example, the number of raw materials of flax fiber, the quality of homogeneous wool, and so on. For example, the finer the fibers used in a spinning mill, the higher the relative strength and roughness of the yarns made from them, and the smoother the appearance. It should be borne in mind that the complex assessment of this or that quality can be obtained from different calculations of individual quality indicators. The average complex assessment of the level of several quality indicators may not change, some of them may be low and some may be high.

It is possible to complete the complex assessment without changing the individual quality indicators of the product. For this reason, this method was used in the spinning mill to evaluate the quality of yarns obtained from different blends.

Comprehensive assessment of the quality indicators of costume fabrics of various composites is given in figure 4.

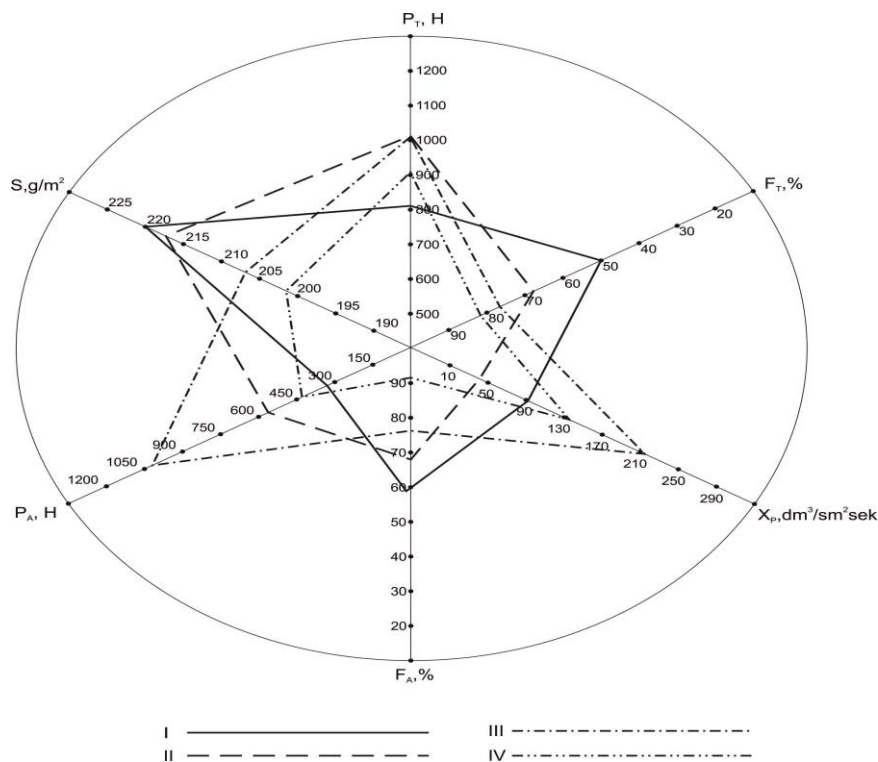


Figure 4. Changes in the quality of suited fabrics with different fiber content.

I-64.7% cotton + 35.23% polyester; II-50% cotton +50% polyester; III-100% polyester;  
IV-24,5% cotton +75,5% polyester.

If we analyze the results of the study, 64.7% of cotton + 35.23% of polyester fiber costume fabric has a tensile strength of 192.0 mm<sup>2</sup>, a thickness of 150 mm<sup>2</sup>, and a thickness of 150.0 mm<sup>2</sup>. surface area of non-shrinkage along the backbone is 120.0 mm<sup>2</sup>, surface area of non-shrinkage along the backbone is 86.4 mm<sup>2</sup>, surface area with tensile strength of the backbone is 148.6 mm<sup>2</sup>, surface area is 268 square meters. 0 mm<sup>2</sup> with a total surface area of 961.0 mm<sup>2</sup>, 50% cotton + 50% polyester fiber suit fabric with a tensile strength of 183.3 mm<sup>2</sup>, a surface thickness of 58 mm and a thickness of 58 mm<sup>2</sup>. The surface area of the rope with air permeability is 56.2 mm<sup>2</sup>, the tensile strength of the rope is 112.5 mm<sup>2</sup>, the tensile strength of the rope is 56.5 mm<sup>2</sup>. with a surface area of 225.0 mm<sup>2</sup>, with a surface density of 352.5 mm<sup>2</sup>, with a total surface area of 988.0 mm<sup>2</sup>, with a tensile strength of 100% polyester fiberglass suede fabric with a tensile strength of 13.1 mm<sup>2</sup>, 139.6 mm<sup>2</sup> of air permeability with non-shrinkage of the body, 139.6 mm<sup>2</sup> of non-shrinking surface of the rope with air permeability, 15 mm with 15 mm of non-shrinkage of the rope, 283.5 mm<sup>2</sup>, with a surface density of 80.3 mm<sup>2</sup>, with a total surface area of 928.0 mm<sup>2</sup>, 24.5% cotton + 75.5% polyester fiber spring suit fabric with a tensile strength 60.0 mm<sup>2</sup> of non-shrinkage surface, 48.0 mm<sup>2</sup> of non-shrinkable air permeable surface, 43.2 mm<sup>2</sup> of non-shrinkable air permeable surface of the rope, 43.2 mm<sup>2</sup> of the rope of the rope. The surface area of the gravitational force was

31.1 mm<sup>2</sup>, the surface area with a tensile strength of the arch was 89.7 mm<sup>2</sup>, the surface area of the shear force was 156.0 mm<sup>2</sup>, the total surface area was 428.0 mm<sup>2</sup>.

The histogram of the change in the overall surface in the complex assessment of the obtained test results is given in Figure 5.

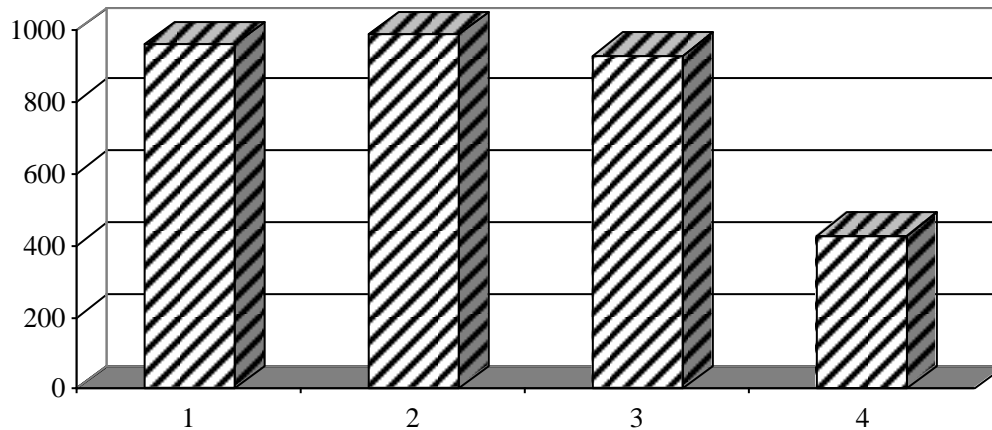


Figure 5. Comprehensive assessment of quality indicators of costume fabrics with different fiber content.

## CONCLUSION

Намуналар

1. The analysis of the test results shows that the tensile strength of 100% lavsan fiber and 50% cotton + 50% polyester fiber is higher than that of other fabrics.
2. As a result of a comprehensive assessment of the quality of suited fabrics with different fibers, it was found that the overall surface is 64.7% cotton + 35.23% polyester fiber and 50% cotton + 50% polyester fiber suits.

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