



## "PORLOQ-2" COTTON SELECTION OF THE VARIETY FLEXIBLE FEATURE RESEARCH REACH

#### M.V.Tulaganova V.T.Isakulov

Tashkent textile and light industry institute

Key words: Cotton fiber, fiber properties, machine-spun seeded cotton, pile, pile, spun yarn, Uster HVI 1000 system, Uster Tester 6 device

## Enter

In the global textile industry, spinning enterprises occupy one of the leading positions in the use of energy-resource-saving technology and equipment. It allows to create various textile products by producing a new range of yarn in spinning enterprises. Currently, great attention is being paid to improving the quality, physical-mechanical and hygienic properties and durability of textile fabrics, and this requires the improvement of the spinning process [1]. In this regard, in order to improve the consumer properties of the fabric, to increase the competitiveness of textile products in the world market, the creation of new selection types of cotton fibers and the study of the effect of fiber property indicators on yarn quality indicators are one of the urgent problems of today.

In our republic, comprehensive measures are being taken to organize the production of a wide range of high-quality sewing products from a new range of fabrics, to expand the use of local cotton raw materials, and to increase the export potential of manufacturers of various mixed products, and certain results are being achieved. In the new development strategy of Uzbekistan for 2022-2026, including "... rapid development of the national economy and ensuring high growth rates, ... reducing losses in industrial sectors and increasing the efficiency of resource use. ... important tasks are defined [2].

In the development of the textile industry, it is aimed at improving modern, automated, high-performance techniques and technologies for the production of a new assortment of high-quality spun yarn, creating new types of textile products and changing the assortment based on the demand and supply in the consumer market. scientific-research works are being carried out.

Theoretical studies. The analysis of literature sources shows that many scientific works are directed to the study of the properties of new types of spun yarns, their production technologies, and the improvement of fabrics with various mixed compositions. Production of a new range of yarns using available raw materials in our republic is an urgent problem of today. At the moment, despite the significant development of the production of woven and knitted fabrics, it should be noted that there are many problems that need to be solved. In particular, in the textile enterprises of our Republic, insufficient studies have been conducted to improve the physical-mechanical and hygienic properties of woven and knitted fabrics. It is important to carry out scientific research on the production of yarn spun from the fibers of a new type of cotton selection in various assortments [3].

### **"INTERNATIONAL SCIENTIFIC RESEARCH CONFERENCE" BELARUS, International scientific-online conference**



It is known that the quality of textile industry products is evaluated by several indicators. The use of statistical methods in their evaluation, experimentation and processing of their results reduces the number of tests and the amount of processing operations. Also, these methods make it possible to associate product quality indicators with changes in the technological process. Today, in the textile industry, the demand for various products made of new assortment of spun threads is increasing day by day. It is important to increase the volume of processing of local textile fibers, which are our main wealth, and to find ways to create new assortment of fabrics [4].

**Experimental research** . In the experiment, the spinning characteristics of the "Porloq-2" cotton selection variety grown in our republic were studied based on the fiber quality indicators. Fiber quality indicators are evaluated on the Uster <sup>®</sup> HVI 1000 system in the laboratory of the joint venture "Wakefield Inspection Services (Tashkent) Ltd" under TTESI, and the obtained results are presented in Table 1[5].

Table 1

1		/
Pointer name and	Experiment	option
units of measure	(crazed fiber)	
Туре	4	
Micronaire pointer (M ic )	4.55	
Upper average length (Len), inches	1,211	
Uniformity index ( Unf ) ,%	82.5	
Relative breaking strength ( Str ), gs/tex	32.6	
Elongation at break ( Elon ), %	8.1	
Light reflection coefficient (Rd),%	81.9	
Jaundice level (b+)	7.3	
Amount of dirty compounds ( Count ), pcs	14	
Area of dirty compounds (Area),%	0.22	
Short Fiber Index ( SFI)	8.0	
Elastic Stability Index (SCI)	144.0	

# Properties of fibers (Uster <sup>®</sup> HVI 1000 system)

Fiber quality in the indicators come came out without Tashkent at the "Educational Production Laboratory at the Department of Spinning Technology" at the Textile and Light Industry Institute yarn and sketchy products work issued \_ Research at work Zinser 350 ring spinning in the car work issued \_ Spinned yarn quality indicators

Prepared according to both options The physical and mechanical parameters of the CCD-30/ 1 yarn were determined. The obtained results are presented in Table 3 and Figure 3 in the form of a histogram.

Table 3

N o	Indicators name	Experience is an option	Uster statistics
1	Product linear density, Ne	40	40

CCD-40/1 linear density thread unevenness indicators





2	- linear unevenness , U $_{\rm m}$ -Variation coefficient , S $_{\rm m}$	10.02 12.72	9.9 12.8
3	C <sub>m</sub> /U <sub>m</sub>	2,263	2.23
4	Thin places (-50%) units/ km	1	1
5	Thick locations (+50%) units/ km	54	53
6	Nep s ( nodules )	24	20
7	Hairiness index	3.3	3.1

### Analysis of results.

In summary, above take went studies result that's it shows that "Porloq-2" cotton selection the variety cotton of fiber flexibility feature and spun of yarn non-Texas indicators according to analyses take when you go fiber quality indicators yarn quality indicators effect showed sure it happened

### BOOKS LIST:

1. Onarboev, BO, Tulaganova, MT, & Isakulov, VT (2019). Improving the sealing protection of equipment in spinning machines. *International journal of advanced research in science engineering and technology*, 6 (6), 9571-9576.

2. Tulaganova, MV, Isakulov, VT, & Muradov, TB (2021). Production technology of " Siro " thread of thin linear density from medium fiber cotton fiber. "In Modern concepts of quality assurance of cotton, textile and light industrial products". International scientific and practical conference. Namangan Institute of Engineering and Technology (pp. 113-117).

3. Tulaganova , M. V., Isakulov , V. T., & Muradov , T. B. (2020). Siro " and again combing method spun threads quality indicators to compare through analysis do.

4. Tulaganova Mukhinur Vokhid kizi , & Isakulov Vokhid Tulaganovich. (2022). A STUDY OF THE EFFECT OF THE SPACING OF IMPROVED PILE COMPACTORS ON THE UNEVENNESS OF "SIRO" YARN TURNS. Innovative Technologica: Journal of Methodical Research , 3 (10), 1–10. <u>https://doi.org/10.17605/OSF.IO/T3NRG</u>

5. Tulaganova Mukhinur Vokhid kizi , & Isakulov Vokhid Tulaganovich . (2022). ANALYSIS OF FIBER TENSIONS IN THE MATURATION TRIANGLE IN SIRO YARN SPINNING. *Conference*, 14–18. Retrieved from

https://conferencea.org/index.php/conferences/article/view/1473