

DEVELOPMENT AND RESEARCH OF TECHNOLOGICAL PARAMETERS OF A NEW TYPE OF LOCAL TEXTILES FABRIC

Komilov Akhmadjon
Urgench State University, Uzbekistan

Siddikov Patkhillo Siddikovich
Tashkent Institute of Textile and Light Industry

Abstract:

This article talks about the production and research of technological parameters of a new type of linen fabric from local raw materials, the introduction of innovative ideas and the application of scientific innovations in the field.

Keywords: research of the properties introduced into textile fabrics, physical-mechanical properties created in fabrics.

Introduction

Textile samples with a new composition were produced from yarns obtained on the basis of local raw materials. For the production of this fabric, yarns obtained from cotton and silk fibers grown in Khorezm climatic conditions, that is, silk yarns as tanda yarn, have a linear density of 3.23 tex. 21.5 tex cotton thread was used for the yarn. This fabric was produced at the "Khiva fabric silk" enterprise in the city of Khiva, Khorezm region, and dyeing was carried out there. The tissue was produced. The new type of tissue was analyzed as follows:

Similar tissue filling percentage.

The text of the threads $T_t=3,23$ (silk)

$T_a=21,5$ (cotton)

Density of threads $P_t=340$ (tan, silk)

$P_{a2}=131,68$ (vodka, cotton)

The text of the rope $T_a=21,5$ the density of Argoq yarn has changed to $P_a D$.

Can we determine using Murphy's formula? $P_{a2}=P_{a1} \sqrt{\frac{T_1}{T_2}} = 340 \sqrt{\frac{3,23}{21,5}} = 131,68 \text{ ip. dm}$

The percentage of filling the fabric with tan threads:

$E_t=P_t*d_t*100=3,4*0,070*100=23,8\%$

$d_t=0,0316*c*\sqrt{T_t}=0,0316*1,25*\sqrt{3,23}=0,070$

The percentage of filling the fabric with hemp threads:

$E_a=P_a*d_a*100=1,3168*0,183*100=24,0$

$d_a=0,0316*c*\sqrt{T_a}=0,0316*1,25*\sqrt{21,5}=0,183$

The percentage of filling the total surface of the tissue:

$$E_{to'q} = E_t + E_a - E_t * E_a / 100 = 23,8 + 24,0 - 23,8 * 24,0 / 100 = 42,088\%$$

LITERATURE REVIEW

In order to modernize production facilities, provide technical and technological equipment of the basic branches of industry, further increase their export potential, create favorable conditions for ensuring the competitiveness of manufactured products, as well as increase the investment attractiveness of enterprises:

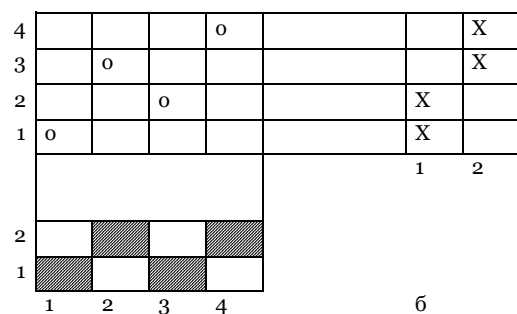
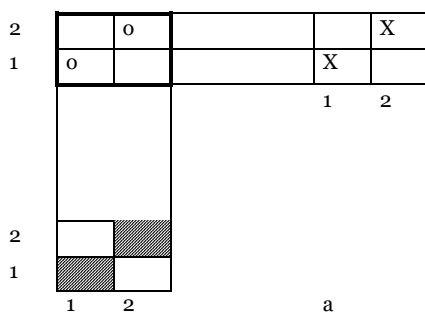
-Availability of an appropriate license to carry out professional activities on the stock market in the Republic of Uzbekistan;

submission of a business plan for further increasing the efficiency of the enterprise's activity by the trustee to the relevant commission;

-paying for the trustee's services in the form of a monthly bonus to cover his administrative expenses and a bonus calculated based on the performance of business plan parameters at the end of the financial year.

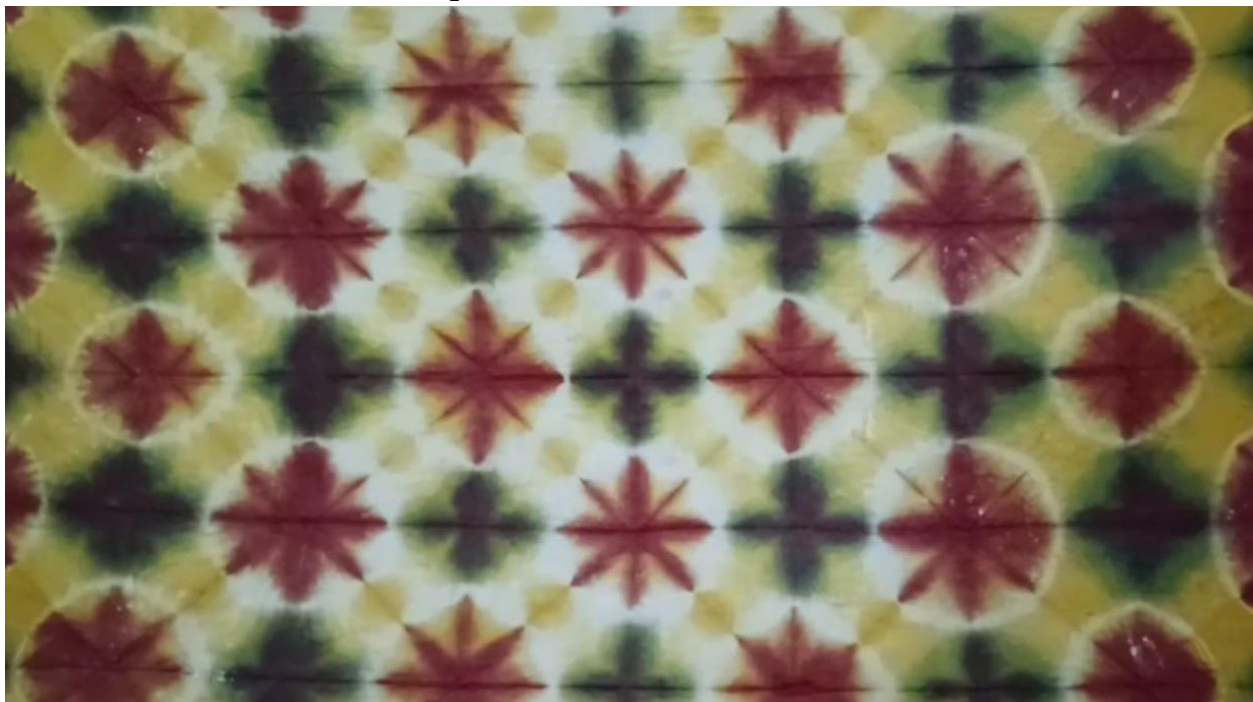
In this case, in cases where the trust manager has attracted his own funds in the form of money, equipment, software products for the implementation of the approved business plan, these funds are based on the calculations and independent auditor's conclusion, and the trust manager and the enterprise must be covered in accordance with a separate schedule agreed between them. A number of well-known foreign scientists have made a great contribution to solving issues such as expanding the technical capabilities of looms in the production of ring hair fabrics with high capillarity that meet the requirements of the world standard, improving the quality of textile fabrics by further improving the technological processes performed. including T. Sharabaty, F. Biguenet, D. Dupuis, P. Viallier, N.P. Rozanova, M.A. Belov and others. The scientific works of famous scientists of Uzbekistan are devoted to the optimization of weaving technology, tissue structure and parameters of tissue production, creation of a new range of hairy tissues and improvement of physical and mechanical properties of hairy tissues. Among them, many scientists, such as E. Sh. Alimbayev, F. A. Veliyev, O. A. Akhunbabayev, B. Kh. Boymuratov, A. D. Daminov, U. T. Abdullayev, contributed. As a result of the conducted scientific research, significant results were achieved in solving the problems of creating new assortments of hairy tissues and their practical application.

ANALYSIS AND RESULTS



Plain weave and full weave pattern loom: a-for double-shaft; b-for four healds.

New product development is essential for exceptional corporate performance, and research about what leads to new product success and failure has been carried out for both goods and services (Brentani, 2001). Ulrich and Eppinger (2004) describe New Product Development (NPD) as “the set of activities beginning with the perception of market opportunity and ending in the production, sale, and delivery of a product” (p. 2). According to Belliveau et al. (2002), new product development is “the overall process of strategy, organization, concept generation, product and marketing plan creation and evaluation, and commercialization of a new product” (p. 450). New product development can be rewarding and is critical to maintain a healthy organization. Cooper (2001) indicates, “New product development is one of the riskiest, yet most important, endeavors of the modern corporation” (p. 4). Successful new product development allows market expansion, increases profits, and enhances creativity and leadership. But, new products failure rates are considerable, and cost of failure is high. According to Booz-Allen and Hamilton (1982), the failure rate of new products introduced into the market remained in the 33 percent to 35 percent range between 1963 and 1981 (Urban & Hauser, 1993). More recently, Crawford et al. (2003) reported that around 40 percent of new products fail. As a result of this, due to the use of cotton threads in the fabric, the amount of moisture absorption of the fabric released for the sheet fabric was achieved. It looked like. A new type of dyeing was carried out in the dyeing department of the "Khiva fabric silk" enterprise for dyeing bedclothes. 2 samples were cut from the finished fabric 1 meter long for dyeing. The cut fabrics were of 2 different types. given a pattern. You can see them in the pictures below.



The fabric offered as a fire-resistant fabric; when the air permeability was studied, it was found that the air passing through it corresponds to the coefficient of air permeability placed on the tissues used for special protective clothing.

CONCLUSION

In short, the obtained fabric samples fully meet the requirements for the scarf. The cost of the woven fabric has been reduced by 50% compared to the previous one, i.e. 100% silk yarn. The quality of the fabric has been reduced indicator easily meets hygienic requirements, as we use natural raw materials.

This allows the fabric to be used as a fire-resistant fabric for use during fire insulation, designed for special fire-fighting clothing. For example, fire resistance (the treated textile material can extinguish the fire freely and be able to maintain its structure after partial combustion), the selected antiprene must be cheap, treated with antiprene the textile material should serve for a long time (up to 5-7 years or more), the fabric treated with antiprene should have a good appearance (in terms of the color of the textile material and the quality of the product should not have any restrictions), the material treated with antiprene should have high tolerance to the contents of cleaning agents during cleaning and easy cleaning from household dirt. as a result of cooking in the twist direction, a thread with a small number of twists is created; from yarn with a small number of twists, ring hair and knitted fabrics that meet the requirements of international standards are produced; in the preparation of tanda threads for weaving, by optimizing their technological process, it was possible to use "Mintval" water-soluble chemical threads with cotton thread; Ring pile fabrics with high capillarity were produced by using yarns with a low number of twists for the pile yarn.

REFERENCES

1. SH. Mirziyoyev's Decision No. 2992 of May 23, 2017 "On measures to fundamentally improve the activities of fire safety units of internal affairs bodies".
2. Y.I.Sirojiddinova, S.A. Khamroyeva "Assessment of fire resistance properties of thread and fabric containing At-2 Asbestos and cotton fiber" "Collection of articles of the scientific and practical conference of textile problems of Uzbekistan". Tashkent, TTESI, April 4, 2021.
3. Y.I.Sirojiddinova, S.A.Khamroyeva "Evaluation of the fire resistance properties of yarn and fabric with a structure made of asbestos" "At-2" and cotton feber" Sciences & Advancements. May 10, 2021
4. Interstate standard GOST 11209-2014 entitled "General technical requirements for special clothes (Tkani dlya spetsialnoy odejdi. Obshiyeh tekhnicheskuyu trebovaniy. Metodi ispitaniy)".
5. UzDst 3191-2017 "Technical requirements for firefighter uniforms" standard based on the order of July 14, 2017 No. 05-81 of the "Uzstandart" agency.
6. GOST 12.1.004-01 "Fire safety" standard.
7. Uzstandart Agency on the basis of Order No. 05-81 UzDst 3191-2017 "Technical Specifications for Fire Extinguishing Personnel Clothing" dated July 14, 2017
8. Khamroeva S.A., Sirojiddinova Y.I. "At-2 Assessment of the refractory nature of asbestos and cotton yarn and fabric" "Collection of articles of the Scientific Practical Conference of Textile Workers of Uzbekistan." Tashkent, TTYeSI, 2021, 04.