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TECHNOLOGY FOR OBTAINING NEW STRUCTURES OF TWO-LAYER KNITTED TEXTURES

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Annotation

Joint ventures specializing in the production of knitwear in our country use synthetic threads for the production of knitwear to the required level of warehouse characteristics. From the foregoing, the development of methods for the effective use of local raw materials to obtain new structures of two-layer knitted fabrics, the production of knitted products that replace imports from them, meeting competitive, high-quality, internal and external market requirements, is one of the most pressing problems of our time.

Keywords: knitwear, synthetic thread, samara, import, quality, double layer.

Аннотация

Совместные предприятия, специализирующиеся на производстве трикотажных изделий в нашей стране, используют синтетические нити для производства трикотажных изделий до требуемого уровня складских характеристик. Из вышесказанного, разработка методов эффективного использования местного сырья для получения новых структур двухслойных трикотажных тканей, производство трикотажных изделий, замещающих импорт с них, отвечающих конкурентным, качественным, внутренним и внешним требованиям рынка, является одной из наиболее актуальных проблем современности.

Ключевые слова: трикотаж, синтетическая пряжа, эффект, импорт, качество, двухслойный.

Annotatsiya

Yurtimizda trikotaj mahsulotlarini ishlab chiqarishga yoʻnaltirilgan qoʻshma korxonalarda trikotaj mahsulotlarining shakl saqlash xususiyatlarini talab darajasiga yetkazish maqsadida ularni ishlab chiqarishda sintetik iplardan ham foydalaniladi. Yuqoridagilardan ma'lumki, mahalliy xom ashyolardan samarali foydalanib, ikki





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qatlamli trikotaj toʻqimalarini yangi tuzilishlarini olish usullarini ishlab chiqish, ulardan import oʻrnini bosuvchi, raqobatbardosh, sifatli, ichki va tashqi bozor talablariga javob bera oladigan trikotaj mahsulotlarini ishlab chiqarish hozirgi kunning dolzarb muammolaridan biri boʻlib hisoblanadi.

Kalit soʻzlar: Trikotaj, sintetik ip, samara, import, sifat, ikki qatlamli.

Currently, in order to further improve the consumer properties of knitted products, an attempt is being made to create a way to obtain a knitted product designed for a light top with a much higher quality and significantly reduced cost using a spun cotton thread and a high-entry Lakra thread based on an analysis of the technological parameters and physical and mechanical properties of knitted samples using In order to maintain its shape and increase the hygienic properties of knitted fabrics, feather knitting was used in obtaining a base thread by adding a small amount of laykra thread to the spun cotton thread instead of polyester thread. In the production of feather knitting tissue, it is possible to improve the hygienic properties of knitted tissue, increase the form-keeping property, reduce the cost of feather Knitting Fabric at the expense of knitting by adding a much higher amount of highly accessible laykra thread to the spun cotton thread instead of polyester thread as the base thread. We will study the effect of the amount and place in Rapport on the technological parameters and physical and mechanical properties of knitting, improving the consumer properties of knitting and adding laykra yarn to a spinning cotton thread, which is our maximum raw material, instead of synthetic thread when knitting knitted knitted knitted knitted knitted knitted knitted varn with a mixed structure intended for light upper knitted products.

Properties of spun cotton yarn

The quality of the yarn used is of great importance in determining the quality of the knitted product. The quality of raw materials determines 70% of the quality of the product. The composition of the spinning thread can be natural, synthetic and artificial.

Natural spinning threads are environmentally friendly, and its composition consists only of natural fibers plant and animal wool. Natural spinning threads are of high quality, hygienic properties are high and high cost.

Knitting from cotton yarn has high durability and good moisture-absorbing properties. Products made from cotton yarn are hygienic, hygroscopic in nature high



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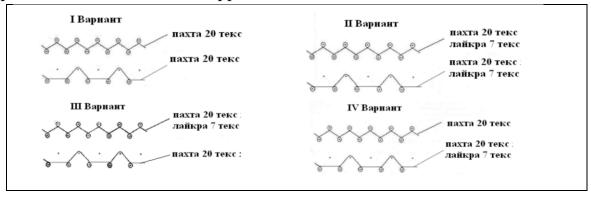
and practically do not burn in the offtob. Cotton yarn is very well dyed in addition to taking bright colors well for itself. Products made from cotton yarn are very convenient, soft. Cotton yarn is used very rarely in combination with other threads. Products made of cotton yarn have high accessibility, we need to give great attention to the properties of knitwear in the blurring and manufacture of products made from cotton yarn.

Laykra thread properties

To obtain synthetic fibers, polymers are produced by synthesis from lower molecular substances. Many of the synthetic fibers are extremely tender and crispy. Items made of such fibers are not crumpled, they can not be ironed, their folds and boards are preserved even after washing, are poorly soiled, the color of painted items is strong, they do not deteriorate under the influence of sunlight and moisture (when washed), are resistant to weather, sun exposure, do not rot. Chemical fibers can be made in the desired creamy so that the water absorbs and does not absorb. Also, synthetic fibers are the necessary raw materials for the production of folk consumer goods in terms of color, properties, and with some properties prevail over natural fibers. Fur products, overalls, knitwear, clothing, shoes, etc., woven on the basis of such fibers and made from materials made of natural raw materials, are suitable for the population.

In order to expand the range of products with high quality indicators using domestic raw materials, use laykra thread in a spinning cotton thread instead of synthetic threads, research on the technological indicators and physical and mechanical properties of laykra thread in quantity and relay knitting tissue in Rapport, in the research process carried out at the Joint Venture "flight Humo Ravna Trans" LLC, four different two-layer knitting

Knitting samples differ from each other in the amount of laykra thread in the composition and its location in rapport.







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Graphic notes of two-layer knitted textures

In the developed two-layer knitting Weft, a series of lactic weft is mixed with a series of press weft, and the layers are attached using press nabrosks.

The i variant of the double-layer knitting loom is woven using a spinning cotton thread with a 100% linear density of 20 teks, and this variant is considered a base variant.

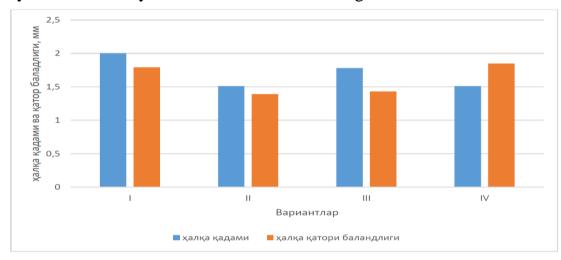
In the production of variant II, both the first row and the second row are woven using the addition of a laykra thread with a linear density of 7 teks to a spinning cotton thread with a linear density of 20 teks.

Option III knitting knitting used a spinning cotton thread with a linear density of 20 teks on the first row, and when knitting the second row, a laykra thread with a linear density of 7 teks was added to a spinning cotton thread with a linear density of 20 teks.

The first line in the production of the IV-variant is the linear density of 7 teks per spinning cotton thread with a linear density of 20 teks

The density and thread thickness of knitted fabrics affect their surface density and thickness. With an increase in the density of knitted tissues, their heat storage properties, strength, resistance to multi-cycle deformation and friction, elasticity property increase.

When, in the process of knitting knitting a knitted fabric using a spinning cotton thread, a laykra thread was added to it, it became known that the ring step of the knitting and the height of the ring row were reduced. This means that the introduction of a laykra thread into the knitting structure leads to an increase in the density, surface density and thickness of the knitting.



Change of Ring step and ring row height of two layers of knitted fabric



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In double-layer knitting weft, 100% was increased by 15.5% by adding laykra thread to the spun cotton thread compared to option I, Option III was increased by 18.9% by thickness, and option IV was increased by 16.4% by thickness.



Variation in the thickness of two layers of knitted fabric

Conclusion

Today, a lot of scientific work is being carried out in order to increase the demand for knitted products, as well as their analysis, the development of more effective ways to obtain knitted textiles with high consumer properties, intended for outerwear from local raw materials, is becoming an urgent issue.

Currently, the expected economic efficiency from 1 ton of used raw materials is very high due to the use of two layers of knitted tissue in the production of finished products due to the addition of laykra thread to the spinning cotton thread in the production of knitting products, option III.

LIST OF BIBLIOGRAPHY

- 1. Shalov I.I., Davidovich A.S., Kudryavin L.A. Технология трикотажного производства. М., Лёгкая и пиевая промышленность, 1984, s.89.
- 2. Xanxadjaeva N.R. Naqsh hosil qilish nazariy asoslari. Darslik. «Aloqachi» nashriyoti. 2010 y.
- 3. Gulyaeva G.X. To change the structure of the knitting and improve its hygienic and form-keeping character due to the use of a high-entry laykra thread. Doctor of philosophy in technical sciences (PhD) thesis abstract. Toshkent. TTESI. 2018 y.





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4. Gulyaeva G., Mukimov M.Investigation of shape stability indicators of knitted fabriss. // «International Journal of Advanced Research in Science, Engineering and Technology», Vol. 5, Issue 5, May 2018. rr. 5733-5741. (05.00.00; №8).

- 5. Usmonkulov Sh.K., Mukimov M.M. технология выработки двухслойного трикотажа уточного приплетения. // Problemы tekstilya. Tashkent. 2014, №3. —s. 44-50.
- 6. Patent UZ № FAP 01060. Односторонный плюшевой трикотаж. Gulyaeva G.X., Mukimov M.M. Zayavl. 20.06.2014g. Opubl. 29.01.2016g. Byul. №1.



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