INTERLOCK KNITWEAR WOVEN FROM SPUN COTTON-NITRON YARN RESEARCH OF PHYSICAL AND MECHANICAL PROPERTIES OF TISSUES

M. Mirsadikov
Assistant of Namangan institute of engineering and technology;
Email: mirzaitmirsadiqov@gmail.com
Tel:+998950073582

M. Mukimov
Professor of Tashkent Textile and Light Industry Institute;
Email: profmukimov@gmail.com
Tel +998998865031

K. Kholikov
Professor of Namangan institute of engineering and technology
Email: qurbonalixoliqov@gmail.com
Tel:+998944620173

M. Abdulhayev
1Namangan Institute of engineering and technology Uzbekistan
E:mail:mirjalol.abdulhayev@gmail.com
Tel:+998996500222

Annotation:
In this article, for the purpose of effective use of local raw materials, research works on the physical and mechanical properties of interlock fabric from spun cotton-nitron thread conducted.

Keywords: knitting, cotton-nitron, interlock, air permeability, friction, ring row, deformation.
Interlock knitting from spun cotton and cotton-nitron thread 3 tissue samples were taken.

The samples are from each other. It differs by the type of raw material used. As a raw material spun cotton yarn with a linear density of 20 tex, linear density 20 tex (85/15) spun cotton-nitron yarn and 20 tex (90/10) spun cotton-nitron threads were used.
In obtaining the 1st option of Interlock fabric, spun cotton yarn with a linear density of 20 tex per 30 systems, spun cotton-nitron with a linear density of 20 tex per 30 systems (85/15) threads were used. In the production of the II option, 1 system of spun cotton yarn with a linear density of 20 tex, 1 system of 20 tex of spun cotton-nitron (85/15) yarn was used. Next, the III-obtion is linear in obtaining a knitted fabric 20 tex spun cotton-nitron (90/10) yarn was

used. The physical and mechanical properties of the obtained samples were determined and are presented in Table 1.

Physical and mechanical properties of interlock knitted fabric woven from spun cotton-nitron yarn.

1-Table.

POINTERS		OBTIONS		
		I	II	III
Types of threads, linear density		Cotton thread p/n thread (85/15)	Cotton thread p/n (85/15)	p/n thread (90/10) 20 teks
Surface density Ms (gr/m^2)		185,4	197,4	190,7
Thickness of fabric T (mm)		0,7	0,75	0,8
Volume density δ (mg/sm^3)		264,8	260,9	238,4
Air permeability B (sm^3/sm^2·sek)		174,5	139,9	155,2
Friction resistance, thousand circle.		10,0	11,0	6,3
Breaking force P (H)	height	340,8	326,4	315,7
	width	199,9	95,5	154,8
Stretching to the junction L (%)	height	13,9	13,5	15,5
	width	47,9	48,0	55,0
Irreversible deformation $\varepsilon_н$ (%)	height	30,0	25,0	36,0
	width	26,7	22,7	24,0
Reversible deformation ε_o (%)	height	70,0	75,0	64,0
	width	73,3	77,3	76,0
Tissue entry K (%)	height	15,0	12,5	9,0
	width	4,5	7,5	5,0

Using the results in the table, the change of the raw material of the samples and the change of the physico-mechanical properties of the tissue in relation to the ratio of the tissue were analyzed by comparing the sample [1-3]. Rapporti 1 system interlaced cotton yarn and knitted cotton-nitron yarn (option II) has the lowest air permeability, which means it has the highest heat retention properties. It was determined that the air permeability of this option is 24.7% less than option 1, and 10.9% less than option III.

The analysis of the change of the friction resistance of the studied interlock knitted samples shows that the friction resistance of the III variant obtained from spun cotton-nitron (90/10) yarn is lower compared to other variants, while in rapporti it is obtained from cotton and cotton-nitron yarns spun with 1 system interlacing and 30 systems interlacing. It was found that the I and II options had a high abrasion resistance. The tensile strength of the interlock knitted fabric was determined to be less than the length and width. Option I is the option

with the highest length and width of knitting. Reversible and non-reversible samples of experimental interlock knitting. The change in deformation depends on the composition and ratio of the knitted fabric. The elastic deformation of the samples obtained from the spun cotton-nitron yarn was found to increase the elastic deformation of the knitted samples woven by adding the spun cotton yarn to the spun cotton-nitron yarn [4-6].

USED LITERATURE

1. Mirzarakhmetova D.M. Issledovanie svoystv i strukturiya nitrono-klopkovoy pryaji i kachestva vyrabotannogo iz nee trikotaja, Diss, kand. tekhi, nauk, 1974.
2. Burnashev I.Z., Baturov U.A. Development technology in Poland konbinirovannyx nitey, "Shelk", 1994, #3.
3. Mukimov M.M. Kulirny plush knitwear. M.: Legprombytizdat. 1991g. S.222. Mukimov M.M. Knitting osobyx svoystv, formatsii, structure. [Text]/ Narodnoe slovo. -2016. Vypusk 26 times g. Tashkent
4. Gulyaeva G. Mukimov M.M. Technology virabotki formustoychivogo plushevogo trikotaja. // J. Izvestia Vuzov. Technology is easy industriousness 2017. - No. 1. - P.80-83. (05.00.00; No. 36).
5. Mirsadikov M. M. Razrabotka mechanism knitting for the production of double-sided plush knitwear // problemy tekstilnoy otrasli i puti ix resheni. - 2021.
6. Mirsadikov M.M. Usovershenstvovannyy sposob vyrabotki razreznogo plyushevogo trikotaja // problemy tekstilnoy otrasli i puti ix reshenia. 2021.