

THE RESEARCH OF DURABILITY OF GARMENT PACKAGE FROM COTTON-PAN FIBER FABRIC

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At the developing present time, there is more research in garment industry which is one of the main sectors of textile branch. The main goal is manufacturing the high quality and affordable sewing goods using the local raw materials and supplying the domestic market with competitive national product as much as possible. Among the factors these are influential to the quality of sewing products, ensuring the form stability of cloth is actual issue.

The actual problem that to explore new fibers on the basis of available fiber according to create new assortment fiber in textile industry. There is researching of polyacrylonitrile-cotton and polyacrylonitrile-silk that mix of fiber for making women's top clothes and to see the effect of decorate technology intended to hot climatic conditions in our republic. It's all known that Republic of Uzbekistan is considered as one of the country that makes high quality cotton, silk and cheap polyacrylonitrile fibers. In recent years, demand of mixed fibers is increasing in the world. These kinds of products include hygienic proprieties of natural fibers and physical-mechanical proprieties of chemical fibers.

There are several methods in garment industry for giving the form of details of apparel: ironing, pressing, steam mannequins form. Besides, for deployment the possibility of upkeep form in the cloth, treat to details with different glue fastening materials such as interlining, fusible and many types of them. In fastening the main fabric with interlining and highly ensuring the form stability of cloth, heat-soaked operations are very important. The parameters of heat-soaked are set depending on the physical and mechanical indicators of the package of cloth.

Under the TITLI by faculties "Technology of textile goods and equipment" and "Chemical fibers" several types of modified fabric are manufactured such as cotton-polyacrylonitrile, cotton- lavesan, cotton-silk and etc. In this study women's clothing projection cotton - polyacrylonitrile fiber fabric which was made by faculties "Technology of textile goods and equipment" and "Chemical fibers", make a package with different types of fastening materials, identify their strength and consist of selecting the appropriate cloth package for this fabric. Experimental research work carried out at the "Centexuz" Laboratory with AUTOGRAPH gadget under the TITLI. Warp and weft of the cloth package samples were prepared with size of 200x50 mm. To create a cloth package heat soaked process parameters plays a role and the purpose of their choice based on the properties of the material. Heat soaked processing parameters are given in Table 1. At the research work cotton - polyacrylonitrile fiber fabric and 3 different types of glue materials are used.

Table 1

Heat-soaked processing parameters to package

№	Apparel package	Thickness, mm	The parameters of heat-soaked		
			Pressing temperature, °C	Pressure, MPa	Pressing time sec.
1	Cotton-PAN + interlining A	0,85	150	0,04	22
3	Cotton-PAN + interlining B	0,95	150	0,04	22
4	Cotton-PAN + interlining C	0,89	150	0,04	22

The samples of 50x200mm fabrics and fastening materials are attached to middle influencing with the above parameters of heat-soaked processing of heat, pressure and moisture. And tips of not attached parts are opened, put to claps of AUTOGRAPH gadget and by order the garget is barring. The claps are moving to oppose sides, the indicators of durability were determined which are breaking load and breaking elongation.

The results of the research are given in table 2 which conducted by durability results of fastening combination's package. 3 types of mix fiber interlining are chosen for package. For the first package the fibrous structure 70% viscose, 30% polyester, the density of the surface 85 gm/m², the adhesive brand P6-66, for the second package the fibrous structure 70% viscose, 30%

polyester, the surface density of 150 gm/m², the adhesive brand P6-66, for the third package the fibrous structure 70% viscose, 30% polyester, the surface density of 110 gm/m², the adhesive brand P6-66 interlining are used.

Table 2

The indicators of durability of fastening of the package

№	Apparel package	Surface density (fabric/ interlining), gm/m ²	Durability indicators of fastening			
			Breaking load, N		Breaking elongation %	
			Warp	Weft	Warp	Weft
1	Cotton-PAN + interlining A	230/85	17	12,5	7	10
2	Cotton-PAN + interlining B	230/150	18	15	28	30
3	Cotton-PAN + interlining C	230/110	16	12,5	11	15

The results of the study show that using the surface density of 85 gm/m² fastening material, on the warp the breaking load is 17 N, on the weft 12.5 N, on the warp breaking elongation 7%, and the weft 10% ,the surface density of 150 gm/m² fastening material, on the warp the breaking load is 18 N, on the weft 15 N, on the warp breaking elongation 28%, and the weft 30% , the surface density of 110 gm/m² fastening material, on the warp the breaking load is 16 N, on the weft 12.5 N, on the warp breaking elongation 11%, and the weft 15%. The fiber content of fastening material, a glue brand and despite the same type of weaving surface density and if the length of the fiber is different, durability different parameters of item package was became known.

B-sample interlining high surface density also due to the length of a mean fabric with high parameter durability of fastening materials joint glue combination is noted.

In a word, breaking load of 150gm/m² the surface density interlining cloth package, compared to the first sample warp 6%, weft 17%, compared to the third sample wrap 12%, weft 17%, breaking lengthen compared to the first sample warp 75%, weft 77%, compared to the third sample warp 61%, weft 50% increased. The results show that fiber content and the same type of glue but item packages show various parameters consist of different density materials. Given the above, for designing women's top clothing from cotton-polyacrilonitrile fabric, fiber content of 70% viscose, 30% polyester, 150 gm/m² the surface density, P6-66 brand glue is recommended for interlining item package.

