

ANNOTATION

This is for degree of Doctor of Philosophy (PhD)
in the direction of "Technology and design of textile materials"

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Development of technology for the creation of seamless articles of textile materials from the needle method "Filz" "

Relevance of the research topic. The trends give in fashion are becoming widely popular knitted lightweight structures made of natural fibers.

Designers garment and sewing businesses produce articles of such as webs in a limited range due to the fact that there is bonding technology of parts made of materials with high structural porosity. For the same reason for such products as is almost impossible application of decorative elements. Accordingly, this technology is development timely and relevant.

In the light of the strategic program "Kazakhstan-2030" and "Cultural heritage" ("Cultural Heritage"), President of the Republic of Kazakhstan Nursultan Nazarbayev said: " The rich folk heritage can used to lead national revival." This is a powerful mechanism that serves as raising the profile of Kazakhstan, including on the world stage production of clothing.

Presently, the relevance of the articles in the national style with ornamental compositions and elements of folk art - historical heritage of any nation or people.

Accordingly, the aim of this thesis the development of connection technology components products knitted fabrics loose structure with simultaneous shaping and decoration.

Object and subject of research is the process of connecting knitted fabrics based on primary and derivative weaves.

The purpose is to develop a method of connection of knitted fabrics loose to give structures them a form-stable form.

Methods and tools for research. The thesis used: a method of graphic design; methods of mathematical planning; Statistical analysis using the computer program Microsoft Office Word, Excel, PowerPoint, Matlab 7.90 (R2009b), Model 32 software, 3D design; «Libra» automatic knitting machine with the software; needle felt machine (running in the technician felting) Janome FM-725 to connect the parts of knitwear loose structure;

Scientific novelty of the results is:

- - The method of shaping the products developed and at the same time decorating with needle method "Filz";
- - The strength and dimensional stability set depending suture needle on the parameters of knitted fabrics and technological conditions for its implementation;
- - Optimum values of performance factors suture needle, depending on the parameters of the elementary unit of the fabric;

- The first time the classification of felt-joints, allowing them to use when creating a new generation of products.

Theoretical and practical significance of the work. The technology used felt-joints, which combination is of knitted and nonwoven industries for the production of textiles, which you allow to create a seamless product by shaping and modeling using any decor.

The research results have been tested with a positive effect in the LLP «Asem Servis» at the Almaty Technological University.

The main provisions of the thesis presented at the international, foreign and national scientific conferences: "Strength of the weld performed by the" Filz »» III international conference "Modern information technologies in education, science and industry" Federal State Educational Institution of Higher Professional Education "Moscow State University of Technologies and Management "of the name KG Razumovsky, 2012 .;

"Innovative development of food processing, light industry and the hospitality industry", Almaty, 2013; "Science. Education. The youth". ATU 2012 and 2014. The work was exhibited in 2011-2012. at the exhibition of achievements of young people, held at the Foundation of the First President of Kazakhstan in Almaty.

The results of the study published 14 works. Including: 2 articles - in foreign journals with non-zero impact factor included in the base «Scopus»; Article 3 - in scientific journals recommended by the Committee; 7 - in the materials of international and national conferences, including 3 - in foreign; 1 innovative patent RK.