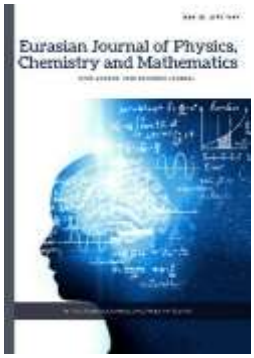

Analysis of Problems in the Production of Knitted Products

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ABSTRACT

The weight of knitted clothes is constantly increasing. This is due to the high serviceability and economic efficiency of knitted goods. The continuous growth of the production of chemical fibres, especially synthetic yarns, and the rapid development of knitting production techniques greatly contributed to the development of the knitting industry. This article discusses the problems of the development of the knitwear industry in Uzbekistan.

Keywords: constructive, canvas, wardrobe, symbol, system path, set, composition centre, constructive solution, dynamic mobility, pearl, precious stones, elegant flowers.

Introduction

Knitting - (from the French «tricotage», i.e. «tricoter» - to knit) is a material created by interlacing loops of one or many threads created on a knitting machine. Unlike other textile products, knitwear is elastic in all directions and has the ability to change shape and size. Its structure consisting of rings provides softness and wrinkle resistance in knitting [1-4].

Historically, we know that the production of knitted products was known several centuries ago, and it is recorded in historical literature. When the Egyptian pyramids were excavated, various knitted products were found there. From the 5th century, knitting by hand was introduced in Arab countries, and from the 11th century, the production of knitted products came to Europe. In England, France, Germany and the Czech Republic, shops producing knitted products were established. In these periods, socks, scarves and hats were mainly knitted using spitz [5-9].

The first knitting machine was created by William Lee in 1589, the machine created will be an innovation of universal importance in the history of knitting production [10-14].

The main part

The Republic of Uzbekistan is boldly moving towards a bright future on the path of independent life. During the past period, a number of practical works were carried out to strengthen our political and economic independence. Today, the most important task is to process our raw materials in-house and produce ready-made products for the world, to create new knitting enterprises to fully satisfy the population's need for knitted products. construction, the use of modern technology and machines and equipment is the reconstruction and re-equipment of existing enterprises,

raising the quality of the produced products to the requirements of the world standard. Fulfilment of these tasks depends primarily on the training of highly qualified personnel. At the same time, it requires a completely new approach to the production of quality finished products. One of the ways to create competitiveness in finished products is to produce high-quality and affordable knitwear. It refers to the development of design and technology based on the analysis of the raw material-knitting-clothing concept with a scientific approach to expanding the types of finished products [15-18].

At the same time, the creation of ready-made products that can be quickly applied to production using local raw materials and can meet market requirements gives high efficiency [19-23].

Knitting industry enterprises produce knitted fabrics, including technical fabrics, socks, goods, inner and outerwear, gloves, hats, scarves, and products used in industry and medicine. Yarns made of cotton, wool and chemical fibres are widely used in the production of knitted goods [24-29].

The main directions of the development of knitting production techniques and technology are the creation of automated continuous lines for the production of linen and socks, the acceleration of production processes by replacing equipment with more efficient ones, continuous processing of linen using organic solvents; consisting of specializing enterprises in the production of various products.

In the process of construction and modelling of knitwear, stretchability, permeability, flexibility, and important features in technological processing are taken into account [26-27].

The constructive and technological solution of knitted goods is related to the degree of elasticity of the canvas. Knitted fabrics are classified into groups according to the degree of elasticity and tendency to deformation, taking into account the characteristics of the original raw material. According to the classification, knitted fabrics are divided into 3 groups: the first group includes knitted fabrics with low stretchability, the second group includes fabrics with medium elasticity, and the third group includes easily stretchable fabrics. These data are the main tools in the construction of knitwear. The value of the stretch additive, which takes into account the elasticity of the knitted fabric, is given in the documents and standards of the general technical conditions applied in the enterprise. The structural solution of details in the construction of the low-stretch, form-retaining knitted fabric is similar to the structural solution of products made of textile fabrics. When designing a knitted canvas garment with high stretch, due to the stretchiness of the canvas, the garment clings to the body due to some stretch.

When creating a model, the appearance, structure, properties and function of the item are taken into account. Straight, tight and trapezoidal extended silhouettes are common in knitwear. The deformation properties of the knitwear are taken into account when determining the allowance for the bust line. Its value is smaller than that of carbonated products. Currently, for a range of knitted products, the total weft value is determined based on practical experience. Pg=1-4 cm for sweaters according to the fashion trend; 2-5 for jackets; 4-6 cm for jackets. For underwear made of easy-stretch fabric, the creep factor is taken as 0, or it can be a negative number because the necessary expansion of the details of the product during the operation period is estimated by the stretching of the canvas. The greater part (50-55%) of the total allowance, which is distributed between construction sections, is allocated to the width of the body, and 25-30% to the width of the back and front sections, according to the fashion direction.

When creating the construction of knitted products, Pm.n is provided for the thickness of the fabric and the insertion fee Ppos for the required volume formation. Pm.n=0 for knitted cloths of the first and second elasticity groups with a thickness of up to 0.3 cm, Pm.n=1.5 cm for cloth thickness exceeding 0.3 cm. The addition to the thickness of the canvas is distributed as follows: 0.3 Pm.n-back pieces; 0, 3 Pm. to our name; 0, 4 Pm.n-front lobe. According to the method of construction of

knitted goods, the additional value of the thickness of the canvas is taken into account when determining the vertical lines of the base mesh in the main construction drawing.

Knitted fabrics with high elasticity are provided by introducing a volumetric shape instead of vitochkas along the shoulder, side seams and hemlines. Its value is determined depending on the quality of the knitted fabric and the construction of the item. The location of the vertical lines of the base grid is calculated by the following additions: Pl.sh, which takes into account the line of spades (in practical calculations, 1 cm is taken as equal); Pobsh, a common addition to the chest line; in addition to the thickness of the canvas - Pm.n; to the width of the rear section - Ps; additional Pp to the width of the front piece, the chest piece is reduced by 1 cm.

The process of processing knitted goods consists of the stages of attaching details in a specified sequence, finishing them and the last wet-heat treatment. The choice of processing methods depends on the design of the product, the characteristics of the knitted fabric, equipment and devices, technological mode and parameters.

Conclusion

The knitted fabric is subjected to humidity, heat and pressure treatment for a certain amount of time. Under the influence of moisture and heat, knitwear quickly succumbs to various deformations. Therefore, after moisture heat treatment, a cooling and drying process is carried out.

Taking into account the elasticity of knitted fabrics, clothes and coupons, moisture heat treatment is given at the specified temperature: 130-135 ℃ for wool fibre knitwear, up to 120 ℃ for cotton and linen fibre knitwear, up to 120...130 ℃ for viscose fibre knitwear, acetate fibre knitwear up to 95...100 ℃, polyester fibre knitwear up to 60...70 ℃.

Exceeding the above-recommended temperature during wet heat treatment can cause the knitwear to lose its colour and strength. Knitwear should be treated under the influence of a small pressure (from 0, 49*104 to 4, 9*104). Otherwise, with increasing pressure, it will lose relief and width, and shiny spots will appear on the surface of the canvas.

We can conclude from this article that several problems need to be solved in the production of knitwear and the ways are shown.

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