

The usage of multilayer warp knitted fabrics of polyester yarn as a filter element is a promising technology. Knitted filter material can be defined as knitwear of increased thickness, surface and volume filling, so this material has the advantages of three-dimensional and surface filters. Researches showed that knitted filters have a lower cost per unit at almost the same permeability in comparison with paper and textile filters.

This type of material also has a number of technological advantages such as high strength, good reconditioning, chemical resistance, low hydraulic resistance [1].

The advantage of machine knitting technology in comparison with woven or nonwoven webs is the possibility of forming a specific spatial structure in a single process cycle without additional processing steps.

It is proposed to develop a multi-layer warp knitted material for industrial purposes using metallic threads. It will provide the material with new properties such as increasing of the elongation at break, reducing the level of surface resistivity.

The study of patent literature has shown that the database has little information of the patenting of filter materials with metallic threads as well as methods of their manufacturing.

Thus, the usage of multi-layer knitted filter material will expand the range of products and reduce the cost of the filter. It will also improve the competitiveness of products and companies.

References

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INFORMATION SYSTEM OF LONG SCUTCHED FLAX QUALITY CONTROL

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Modern requirements to the quality of the products of textile enterprises, the rapid change in market demand for products, the rapid change of the range of products, changing assortment of recycled textile fibers require the use of modern information systems for the analysis and quality control of manufactured textile enterprises. RUPTE "Orsha Linen Mill" is the largest enterprise in the CIS and Eastern Europe producing goods from flax and combines in its structure technological processes covering the entire production cycle, from scutched flax fiber to finished garments. At the same time quality control of products and flax spinning is carried out both in the laboratory of input control and laboratory of spinning mills.

For quality control of flax fiber the specialized software and hardware complex was developed. Due to significant scale of the RUPTE "Orsha Linen Mill", the developed complex is geographically distributed among mill laboratories and includes a central server that provides data storage and processing of physical and mechanical properties of flax fiber, and mobile laboratory workplaces, providing access to all features of the complex. In the development of software and hardware complex modern information technologies for the storage and statistical data analysis, reporting, and remote data access using a corporate computer network have been used. Centralized storage allows to operatively provide simultaneous access to the relevant data to all users of the complex with the corresponding access rights.

During the development of the complex web-based approach was used, in which the system is a client-server web-based application where the web server acts as a server, and the web browser – as a client. This architecture is modern and has a number of advantages over classical architecture, in particular, it does not require the installation of an additional non-standard software on client devices and allows to upgrade complex software easily. The developed system is platform-independent. The server part can run on any operating system for which there is a realization of the web server (most of modern operating systems). The client part (the web browser) is available in any modern operating system (including mobile platforms) and does not require installing any additional software. The system is easily portable, allowing without any additional difficulties to expand and upgrade the hardware and software of the server. The client-server architecture allows for centralized data storage, which facilitates maintenance and administration of the system. The system allows users to organize access to it from anywhere in the enterprise, if you have access to a local area network (including the use of wireless technologies), and, if necessary, from anywhere in the world via the Internet.

The server part of the system operates using four components: a web server (Apache), a program code of the system written in an interpreted server-side programming language (PHP), database management system (MySQL) to store data and programming environment for statistical data processing (R). The server part runs under control of Debian GNU/Linux network operating system. Both stationary PCs running Windows OS and mobile devices running Android OS can be used as client devices.

The information system of quality control allows for automated estimation of the ability of spinning flax fiber in accordance with current legal regulations. Also the developed system allows to carry out a statistical analysis of change of physical and mechanical properties of flax fiber during processing and to conduct operational control and comparative analysis of physical and mechanical properties, quality and volume of deliveries taking into account the regionalization of flax and flax breeding.

For all interested persons in the information system of quality control interfaces for data input and for the formation of various types of reports are implemented. Software modules of the information system implement modern methods of estimation, control and forecasting of physical and mechanical properties of the

spinning products and yarn and allow to increase the quality of linen fabrics produced by RUPTE "Orsha Linen Mill."

References

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SPECIFICS OF FUNCTIONING OF CENTRAL BANKS IN THE USA AND BELARUS: COMPARATIVE DISCRPTION

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The Central Bank has a special place in the monetary system of the country. It is the main institution, which executes the monetary policy and performs other essential governmental functions.

The Federal Reserve System is significantly different from most central banks in the world. The Federal Reserve System, also known as the «The Fed», is an independent U.S. government agency. Its most important function is to manage the country's supply of money and credit.

The National Bank of the Republic of Belarus (hereinafter referred to as the "National Bank") is the central bank and a government agency of the Republic of Belarus. The main objectives of the National Bank are: protecting the Belarusian ruble and ensuring its stability, including its purchasing power and the rate of exchange relative to foreign currencies; maintaining the stability of the banking system of the Republic of Belarus and ensuring efficient, reliable and secure functioning of the payment system. Profit making is not the main objective of the National Bank [2].

The Federal Reserve System includes 12 regional Federal Reserve Banks and 25 Federal Reserve Bank branches. All nationally chartered commercial banks are required by law to be members of the Federal Reserve System; membership is