The sensitivity to anisotropy of capacitive transducers produced on relatively thin substrates b ≈ dr (upper curves in Fig. 1c) is higher than that of capacitive transducers on thick substrates. However, small capacitance values of capacitive transducers bring to naught this advantage. Figure 1c shows the changes in capacitances between electrodes of mirror-symmetrical AIC and SAIC which are observed as long as the gap between electrodes, dr, decreases. The electrodes of capacitive transducers abrade during the period of exploitation. The thickness loss of the electrodes results in the loss of sensitivity to dielectric anisotropy of a material. The loss of relative difference of capacitances, which create the fields along the anisotropy axes, equals to 0.5 % when the loss of electrode thickness ranges from 5 μm to 35 μm. When the size increases h → ∞ relative differences (Cx – Cy)/C0 tend to the values of relative differences of capacitances of multichannel AICs. They do not depend on the size h (thickness of the inspected material). The maximum difference (Cx – Cy)/C0 is observed for sensors when the thickness of an inspected material equals h ≈ 2b.

References

1. Li X.B. 2006 Instrumentation and Inverse Problem Solving for Impedance Imaging (Washington : University of Washington Graduate School) p.342
2. Styra D. 2008. Electrical capacitance measurement in multielectrode systems (Kaunas : Kaunas University of Technology) p.29
3. Lv H. M., Ma L, Ma C. Q., Fu H. J., 2014 Text. Res. J. 84 2056
4. Shtraus V.D., 1974 Mekh. Polim. 4 715
5. Mamishev A .V., Sundara-Rajan K., Yang F., Du Y.Q., Zahn M. 2004 Proc. of the IEEE 92 808
6. Dzhezhora A.A., Navumenka A.M. 2011 Russ. J. Nond. Test. 47 834
7. Radovitskii V.P., Streltsov B.N., 1967 Electrodynamics of Textile Fibers (Moscow: Light Ind.) p.276

UDC 658.562.64

COMMODITY NOMENCLATURE OF SHOES QUALITY INDICATORS

ТОВАРОВЕДНАЯ НОМЕНКЛАТУРА ПОКАЗАТЕЛЕЙ КАЧЕСТВА ОБУВИ

Dauhan M.I., assistant, masha.do47@gmail.com
Vitebsk State Technological University
Hasanava S.P., graduate student, sabinahasanova@tut.by
Vitebsk State Medical University, Vitebsk, Republic of Belarus
Долган М.И., ассистент
Витебский государственный технологический университет,
Гасанова С.П., выпускник
Витебский государственный медицинский университет,
г. Витебск, Республика Беларусь

Key words: *nomenclature, shoes, commodity, quality, quality indicators.*

Ключевые слова: номенклатура, обувь, товароведение, качество, показатели качества.

Abstract. These characteristics of consumer goods are formed within quality indicators nomenclature. This nomenclature is a set of properties and indicators that determine the satisfaction of real and perceived human needs. There are groups and subgroups within the nomenclature, which reflects the characteristics of consumer properties of goods. There is a different range of consumer properties for each product group.

Аннотация. Качественные характеристики потребительских товаров формируются в пределах номенклатуры показателей качества. Номенклатура показателей качества представляет собой совокупность свойств и показателей, которые определяют удовлетворение реальных или предполагаемых потребностей человека. В пределах такой номенклатуры существуют группы и подгруппы, которые отображают особенности потребительских свойств товаров. Для каждой товарной группы существует своя номенклатура потребительских свойств.

Development of commodity nomenclature uses the typical commodity nomenclature which consists of consumer properties and quality indicators for a particular group of goods.

The definition of the nomenclature of footwear quality indicators by Sadovsky and Nesmelov [1]: "The requirements for footwear are determined by its purpose, operating conditions, fashion trends, seasonality, climatic features and other factors. Among the requirements for shoes, the main ones are: social, functional, ergonomic, operational (reliability requirements), aesthetic."

This classification of requirements for footwear is more complete and extended in compared with РД-17-06-152-89 [2], in which the quality indicators for footwear are represented by the consumption properties (reliability, durability), ergonomic properties (hygienic, anthropometric, physiological) and safety (electrical for example).

The specialists of VSTU made their nomenclature in the field of integrated assessment of footwear quality.

Gorbachik and Linnik [3] proposed an enlarged scheme for assessing the quality of footwear, in which the quality of shoes was proposed to be evaluated in two directions: production, economic and consumer properties, and the last two groups were divided into another two groups - aesthetic and operational. The ergonomic quality indicators and indicators durability and reliability were sorted as operational qualities.

This division is of interest because the group of functional and safety indicators is not classified this despite of the fact that these indicators have lead places in the classification of goods.

Also it is necessary to note that operational parameters of shoe soles quality (reliability, maintainability, maintainability and durability) Lyubich [4] identifies the exploitation characteristics which make influence on binding shoe details and characterizes then as holding strengths of upper parts (formed by the protruding edge

of the top and the insole, the sole, the sole and the insole, the welt together with the sole, with the insole and sole), holding strengths of welt with upper and lower details, plantar bonds and heel bindings.

References

1. Товароведение одежно-обувных товаров. Общий курс: учеб.пособие / В.В.Садовский, Н.М. Несмелов и др.; Под общ. Ред. В.В. Садовского, Н.М.Несмелова. - Минск.: БГЭУ, 2005.- 427 с.
2. РД 17-06-152-89. Обувь. Номенклатура показателей качества. -Взамен ГОСТ 4.12-81- Введен 01.01.92. Москва: ЦНИИТЭН, 1991. – 9 с.
3. Горбачик, В. Е. Комплексная оценка уровня качества обуви / В. Е. Горбачик, А. И. Линник. - Обувная промышленность : обзорная информация / ЦНИИТЭИлегпром ; вып. 2. Москва, 1991. – 60 с.
4. Любич М.Г. Товароведение обуви // издательство «Экономика», Москва, 1966. – 231 с.

UDC 004.9:677.11.021.16/.022:658.652

COMPARATIVE ANALYSIS OF FLAX FIBER PROPERTIES

СРАВНИТЕЛЬНЫЙ АНАЛИЗ СВОЙСТВ ЛЬНЯНОГО ВОЛОКНА

Dyagilev A., associate professor, Isachenko V., postgraduate student, Kogan A., professor
Vitebsk State Technological University, Vitebsk, Republic of Belarus
Golovenko T., Ph.D., doctoral student
Kherson National Technical University, Kherson, Ukraine
Дягилев А.С., доцент, Исаченко В.В., аспирант, Коган А.Г., профессор
Витебский государственный технологический университет,
г. Витебск, Республика Беларусь
Головенко Т.Н., к.т.н., докторант
Херсонский национальный технический университет, Херсон, Украина

Key words: *flax fiber, information system, quality control, quality indicators.*
Ключевые слова: *льняное волокно, информационная система, контроль качества, качественные показатели*

Abstract. Using the information system of quality control the possibility of using oilseed flax fibers for the production of linen textile materials was investigated.
Аннотация. С использованием информационной системы контроля качества была исследована возможность использования волокон масличного льна для производства льняных текстильных материалов.

Improving quality and expanding the range of textile materials is one of the topical tasks of the industry of the Republic of Belarus. RUPTP «Orsha Linen Mill» is the biggest enterprise in Eastern Europe, which processes flax fiber and produces linen