

ANALYSIS OF THE RANGE OF CHILDREN'S CLOTHING OF VARIOUS FIBER COMPOSITION

Shakhlo Tursumatova

Assistant of the Department of Light Industry Technology,

Fergana Polytechnic Institute, Fergana, Uzbekistan

Email: sh.tursumatova@ferpi.uz

Muharramoy Kholmatova

Master's Degree Student, Fergana Polytechnic Institute, Fergana, Uzbekistan

Abstract

In the modern world, the concept of "comfort" of clothing is inextricably linked with the safety of the product, because ensuring optimal indicators of properties that characterize the comfortable state of the body, reflects its normal functioning. It should be noted that the design developments took into account those ergonomic requirements that are set out in the regulatory and technical documentation, but now the question is raised about the design and creation of such industrial products and the subject environment, when using which human activity becomes optimal, i.e. while ensuring high efficiency of activity, harm to the physical health of a person will not be caused. This concept is closely related to the term "comfort", which consists of psychological and physiological aspects. For moral satisfaction, clothing must correspond to aesthetic preferences, which will change depending on the age group of children, which is associated with psychological crises. It should be noted that the concept of "comfort" is complex and reflects the state of the comfort of the body from a subjective point of view, which is based on a sense of satisfaction when using clothes. Psycho-emotional and physical comfort are closely related and form a single whole. This is of particular importance for children. Physical discomfort can affect both the still unformed psyche and development, and the health of the child. that the concept of "comfort" is complex and reflects the state of the comfort of the body from a subjective point of view, which is based on a sense of satisfaction when using clothes. Psycho-emotional and physical comfort are closely related and form a single whole. This is of particular importance for children. Physical discomfort can affect both the still unformed psyche and development, and the health of the child. that the concept of "comfort" is complex and reflects the state of the comfort of the body from a subjective point of view, which is based on a sense of satisfaction when using clothes. Psycho-emotional and physical comfort are closely related and form a single whole. This is of particular importance for children. Physical discomfort can affect both the still unformed psyche and development, and the health of the child.

At the moment, there is no direct assessment of the comfort of clothing and underwear microclimate, as well as an assessment methodology. Only an indirect assessment based on

hygienic indicators is used. Finding a correlation between the indicators and their full calculation is a rather laborious procedure and does not guarantee an objective assessment of the comfort of the microclimate of the underwear space.

It should be noted that the indicators of hygienic properties separately do not characterize the comfort of the underwear microclimate of the material packages.

There are no criteria for assessing the microclimate of the underwear space, depending on the number and composition of clothing layers, taking into account the requirements of regulatory and technical documentation.

Clothing performs many different functions: barrier, protection, creating a special microclimate between the body and the environment (Figure 1.), And also must satisfy aesthetic needs, while remaining comfortable.

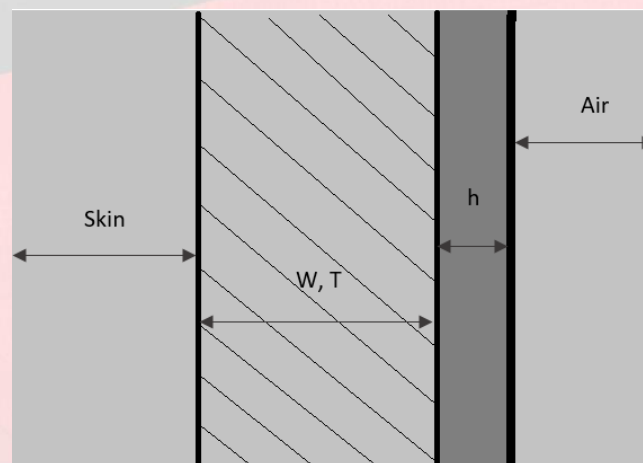


Figure 1. Clothes in the system "man - clothes - environment", where Skin - skin; W, T - underwear space; h is the thickness of the clothes; Air - environment

The variety of clothing, its composition, structure and combination of layers expand and at the same time complicates the choice. A wide range of children's clothing is presented on the modern market. By purpose, clothing is divided into household, sports and national. Among the household, in turn, one can single out home, everyday, formal clothes and uniforms. Clothing also differs in the way it is worn. Shoulder clothing includes a T-shirt, blouse, sweater, cardigan, sweatshirt, long sleeve, shirt, raincoat, jacket, jacket, coat, short coat, romper, vest, dress, overalls, etc. Pants, skirts, shorts, breeches, swimming trunks, underpants, etc. are classified as belt clothes.

Combinations of things make up sets, such as pyjamas, a suit, a trouser set, a bathing suit, etc. [1-4].

In addition to a wide range of children's clothing, various brands produce children's clothing on the market. Here are some of them: Acoola, Adidas Kids, Angel's Face, Antilopa, Armani Junior, ASK Enquired, Beba Kids, Bonprix.ru, Brandshop, Button Blue, Canoe, Carnevale, Choupette, Crockid, Dal Lago, David Charles, De Salitto, DPAM, Etsy, Farfetch, Five Kids

Store, Gallucci, Gap Kids, Gulliver, Happy Step, H&M, Jacadi, Kanz, Kid Rocks, Kissy Kissy, Lamoda, Lapin House, La Redoute, LC Waikiki, Little Pushkin, Mango, Monnalisa, Mothercare, Next, Orby, Original Marines, Pelican, Petit Bateau, Play Today, Quelle, Reima, Revolve, Sela, Silver Spoon, Stilnyashka, Street Beat, Sunuva, Sweet Berry, Tartine et Chocolat, Tictail, Twinset, Uniqlo, Vitacci, Wildberries, Zara, I will be a mother, Children, Children's world, Daughters-Sons, Empire of childhood, Kapika,

Depending on the season, there are summer, winter, demi-season and all-weather clothes. The seasonality of clothes reflects not only the year intended for wear but also the degree of protection from the cold. Thus, winter and demi-season clothing are aimed at keeping warm and protecting against wind and precipitation. Depending on climatic conditions and temperature conditions, the degree of protection from the cold will differ [10-14]. This can be achieved in various ways, both by choosing outerwear and by a competent combination of layers in a clothing package [15-21]. However, information about the temperature at which the product should be used is not on the labels of children's clothing, which could significantly affect the choice when buying. The task of summer clothing is to provide ventilation that prevents overheating, remove excess moisture and, if possible, cools.

Summer clothes are subject to higher requirements due to skin contact. However, maintaining comfort in winter and demi-season clothing is an equally important aspect, which, unfortunately, is not reflected in the regulatory and technical documentation [20-23].

Children's clothing is made from various materials depending on the purpose, season, and age. Clothing is made from fabrics of various weaves (twill, crepe, etc.), knitted fabrics, non-woven materials, film and complex materials, as well as from leather and fur, and clothing also has a different fibrous composition.

A large share of the market for children's clothing for preschool age is occupied by textile materials made from natural fibres [24-25]. Cotton is the most popular [27] natural fibre. Cotton has good hygienic properties [17], high in strength and is hypoallergenic.

Trousers are produced with 10% polyester fibres or 5% elastin content [9]. "The second type of plant fibre in importance is flax" [26].

However, for the manufacture of children's clothing, textile materials from linen are rarely used, due to the high cost relative to cotton and the high degree of turnover.

Textile materials made from wool fibres are not so popular, due to the likelihood of allergies, materials containing wool fibres can cause unpleasant tactile sensations. Therefore, mixed fabrics are more often used, which have better characteristics compared to pure wool [26].

To improve the properties of materials, mankind has come to the development of synthetic fibres. Most of all, the development of sports and extreme sports clothing has succeeded in this area [15, 25]. the main task is to retain heat and remove moisture to maintain comfortable conditions under the clothes microclimate, which directly affects human health and performance. The same tasks are faced when creating children's clothing. In connection with

the metabolism, higher than that of an adult, and the motor activity of children, these developments were partially adopted by manufacturers involved in the production of children's clothing. According to the functional purpose, clothes are divided into the first, second and third layers.

The first layer is "products that have direct contact with the user's skin": linen - underwear and bedding, hosiery, corsetry and bathing products, hats (summer), handkerchiefs and head scarves, etc. [26-28].

Second layer garments are "articles having limited contact with the user's skin", such as dresses, blouses, top shirts, trousers, skirts, suit dresses, sweaters, and jumpers, as well as "unlined articles and articles in which the lining takes up less than 40 per cent of the area of the top of the product (suits, trousers, skirts, jackets, jackets, vests, sundresses, semi-overalls, overalls and other similar products" [27].

The clothes of the third layer, as a rule, are put on over the products of the second layer. These are coats, short coats, jackets, raincoats, suits (lined) and other similar items [27].

The safety requirements for the third layer of clothing are the least stringent, so the use of new materials in products related to the third layer has become more widespread (Figure 2).

The domestic polyester fibre market is growing by about 10% annually and the volume of consumption has increased to 197 thousand tons in 2017. Today, the growing demand for polyester fibre is provided mainly by imports (the share is more than 60%) [28-31].

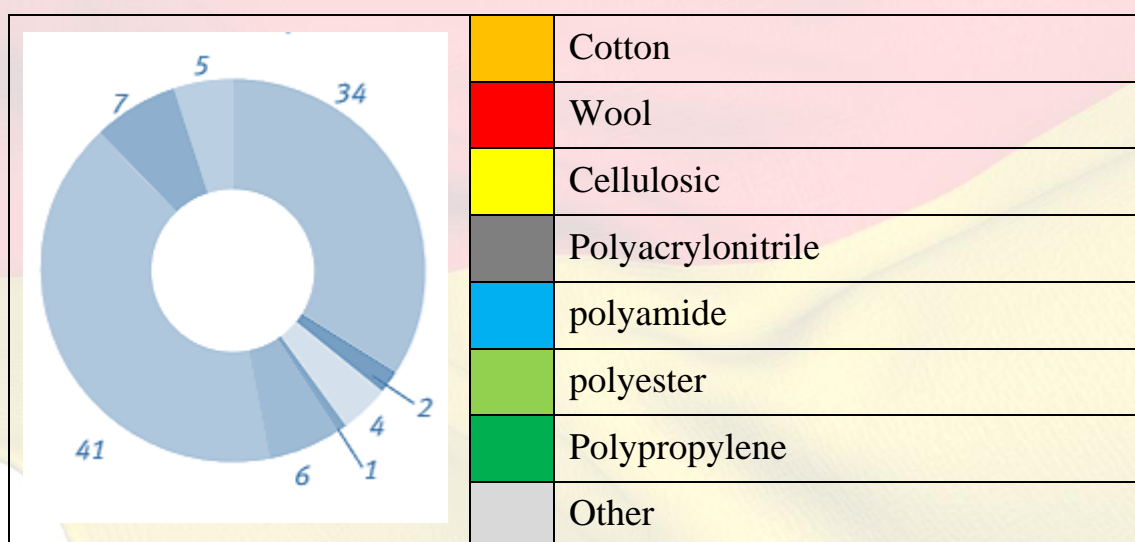


Figure 2. Structure of world consumption of fibrous raw materials

Among the range of outerwear presented in modern children's stores [31-33], most often there are products made of synthetic materials (100% polyester fibre). Moreover, the lining material, too, is often made of polyester fibres.

Polyester fibres in the textile industry are widely used. They are produced as textured threads, monofilaments, bulk format threads, etc. [32-35]. Due to their properties, polyester fibre materials are used for the production of outerwear, insulation for shoes, winter jackets (for example, synthetic winterizer), and toys.

Even though such materials are durable, wear-resistant, and easy to care for, they do not stretch after washing, and dry quickly, at the same time they have increased rigidity, and poor breathability and are highly electrified. Therefore, to compensate for the negative aspects of the polyester fibre, it is combined with other fibres, such as cotton or viscose, which have good hygroscopicity. The fabric from this combination is suitable for tailoring casual wear, clothing for leisure and at home.

In the modern world, thanks to the development of industry and new technologies, the range of materials for making clothes is very extensive. However, not all of them are suitable for the manufacture of children's clothing due to the requirements of regulatory and technical documentation.

References

1. Mukhiddinov, S. M., & Kabilov, E. E. (2022). The effect of harmful gases emitted from the Samarkand chemical plant on human health. *Journal of Geography and Natural Resources*, 2(06), 49-53.
2. Tursunov, D. O., & Nabidjonova, N. N. (2022). The research on the production of special clothes for car repairmen takes into account the ergonomic features of a person. *International Journal of Advance Scientific Research*, 2(04), 19-24.
3. Tursumatova, S. (2022). Selection of sewing machines and establishment of manufactured assortments. *American Journal of Applied Science and Technology*, 2(06), 42-46.
4. Samiyevna, T. S., & Raxmatovna, M. S. (2022). The importance of creating embroidery patterns from the methods of artistic decoration in the light industry. *Innovative Technologica: Methodical Research Journal*, 3(5), 1-10.
5. Базаров, Б. И. (2004). Экологическая безопасность автотранспортных средств. Ташкент: ТАДИ.
6. Raxmatovna, M. S. (2022). Analysis of women's clothes sewing-a study to develop a norm of time spent on the technological process of knitting production. *International Journal of Advance Scientific Research*, 2(03), 16-21.
7. Raxmatovna, M. S. (2022). Research on the development of norms of time spent on the technological process of sewing and knitting production; basic raw materials, their composition and properties. *Innovative Technologica: Methodical Research Journal*, 3(03), 28-32.

8. Маматкулов, Р. С. (2020). Особенности формирования готовности будущих педагогов к инновационной деятельности средствами информационных технологий. *Academic research in educational sciences*, (2), 349-354.
9. Khudoyberganovich, S. U., Nabievich, K. B., & Gofurovich, J. A. (2022). Effects of anti-smoke additives on diesel fuels. *Harvard Educational and Scientific Review*, 2(3).
10. Рахматовна, М. С. (2022). Analysis of women's clothes sewing-a study to develop a norm of time spent on the technological process of knitting production. *International Journal of Advance Scientific Research*, 2(03), 16-21.
11. Базаров, Б. И. (2022). Шадиметов ЮШ Айрапетов ДА Транспорт, экология и здоровье.—Ташкент: 2022—256 с.
12. Abdurakhmanov, G., Mukimov, K., Esbergenova, A., & Mamatqulova, S. (2020). New thermoelectric materials. *Euroasian Journal of Semiconductors Science and Engineering*, 2(6), 10.
13. Fattakhovna, Y. N., Bakhtiyarovna, T. D., & Bakhtiyorovna, A. M. (2022). Use Annual Plants as Additional Raw Materials for Obtaining Technical Cellulose. *Central Asian Journal of Medical and Natural Science*, 3(3), 620-623.
14. Bakhtiyorovna, T. D., & Nematzhanovna, S. D. (2021, February). Determination of antimicrobial effects of silver nanoparticles using liquid extract *Juniperus Communis L.* In *Archive of Conferences* (Vol. 14, No. 1, pp. 10-11).
15. Кобилов, Э. Э., & Раупов, Ф. С. (2016). Целенаправленный подход к комплексному лечению острой бактериальной деструктивной пневмонии у детей. In *Современные технологии в диагностике и лечении хирургических болезней детского возраста* (pp. 47-52).
16. Базаров, Б. И., Адиллов, О. К., Кушбоков, И. С., & Худойбердиев, Б. Б. (2016). Модели вредности и токсичности выбросов автотранспортных комплексов. *Молодой ученый*, (7-2), 45-48.
17. Тайирова, Д. Б., Шакирова, Д. Н., & Алланазорова, М. Б. (2022). Изучения Антимикробного Действия Стерильной Липосомальной Композиции С Использованием Жидкого Экстракта *Juniperus Communis L.* *Central Asian Journal of Medical and Natural Science*, 3(3), 636-642.
18. Базаров, Б. И. (2005). Газобаллонные транспортные средства и стационарные установки. Ташкент: ТАДИ.
19. Ibrahimova, D. (2023). The ethical environment in the virtual world. *World Bulletin of Management and Law*, 18, 146-148.
20. Базаров, Б. И., & Калауов, С. А. (2014). Эксплуатация и испытания двигателей внутреннего сгорания. Ташкент: Voris–Nashriyot.

21. Kobilov, E. E., Abdullaev, R. B., Shamirzaev, X. M., Turamkulov, S. N., & Niyazova, O. (2021). Problems of the population living in ecologically unfavorable areas of the southern aral sea region. *Новый день в медицине*, (1), 163-168.
22. Romanov, V. E. (1981). A systematic approach to the design of special clothing. M.: Light and food industry, 128.
23. Zikirov, M. C., Qosimova, S. F., & Qosimov, L. M. (2021). Direction of modern design activities. *Asian Journal of Multidimensional Research (AJMR)*, 10(2), 11-18.
24. Базаров, Б. И., & Усманов, И. И. (2022). Экологическая безопасность эксплуатации и нормирование расхода топлива карьерных автосамосвалов. *Экономика и социум*, (2-2 (93)), 558-565.
25. Istomin, S. V., & Turchenko, V. N. (2017). Prerequisites for changing the procedure for providing workers with personal protective equipment. *Labor protection and economics*, (1), 99-105.
26. Базаров, Б. И. (2006). Научные основы энерго экологической эффективности использования альтернативных моторных топлива: Дисс... док техн. Наук. Ташкент: ТАДИ, 215, 2006-215.
27. Mamuraxon, A., Abdulaziz, K., Faxriyor, B., & Sarvarbek, B. R. (2022). To study the effect of local waste on increasing the strength of gypsum. *Universum: технические науки*, (6-7 (99)), 12-14.
28. Базаров, Б. И., Усманов, И. И., & Сидиков, Ф. Ш. (2019). Влияние массы газовых баллонов на эксплуатационные показатели автомобиля. *Вестник ТАДИ*, (2), 53-55.
29. Каримов, Н. М., Абдусаттаров, Б. К., Махмудова, Г., & Саримсаков, О. Ш. (2021). Пневматическая транспортировка хлопка-сырца на хлопкозаводах. In *Инновационные Подходы В Современной Науке* (pp. 61-70).
30. Imamovich, B. B., Shamsitdinovich, S. F., Abdumhammad o'g'li, A. A., & Yodgor o'g'li, I. J. (2022). Classification of air cleaning filters. *Gospodarka i Innowacje.*, 30, 7-11.
31. Сидиков, А. Х., Махмудова, Г., Каримов, А. И., & Саримсаков, О. Ш. (2021). Изучение движения частиц хлопка и тяжёлых примесей в рабочей камере пневматического очистителя. *Universum: технические науки*, (2-2 (83)), 51-56.
32. Jorabayeva, N. A., & Kabilov, E. E. (2022). The role of wastes released from grain production enterprises in the origin of respiratory tract diseases. *Journal of Geography and Natural Resources*, 2(06), 38-42.
33. Kobilov, E. E., & Tukhtaev, M. K. (2022). Current treatment of acute bacterial destructive pneumonia in children. *World Bulletin of Public Health*, 17, 1-4.
34. Kobilov, E. E., & Tukhtaev, M. K. (2022). Comparative Evaluation of the Results of Treatment of Acute Adhesive Intestinal Obstruction in Children. *Eurasian Medical Research Periodical*, 15, 1-3.
35. Кобилов, Э. Э., Абдуллаев, Р. Б., Турамкулов, Ш. Н., & Шамирзаев, Х. М. (2021). Особенности течения заболеваний среди населения южного приаралья. *А43 Актуальные проблемы экологии и природопользо*, 22, 307.